

NEWSLETTER

## Real participation: online tools



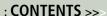
Biochemist Margarita Salas puts forward her challenge on YouTube, as part of the Challenge 2030 project launched by the Fundación Española para la Ciencia y la Tecnología. The project asks European citizens to choose online from 14 improvements for our society that are achievable by 2030, suggested by important science and innovation figures from Ferran Adrià to Norman Foster. A scoreboard in the hall of the Council of the European Union building in Brussels shows real time results to the European authorities and the results are presented to all European Science and Innovation ministers.

See www.challenge2030.eu for more information.

Science centres and museums increasingly claim to be places where visitors' participation counts. Visitors' contributions improve the atmosphere of a science centre or museum, making them feel like "a lively place that reflects the diverse perspectives of the community," Nina Simon states in her article about how good design leads to good participation on page 4. Increasingly, science centres and museums assert that their role as institutions of participation brings the public closer to policymaking on scientific issues. But, as we hear on page 2, "the field is confronted with the reality of a substantial "invisibility" of science centres to policymakers and to the discourse of participation in the governance of science." This issue of the Ecsite newsletter is guest edited by Amsterdam-based science centre and museum consultant Andrea Bandelli, and takes a specific look at how online tools can provide solutions to the

problems of participation. With this issue, he brings in the voices of individuals who are on the edges of our world of science centres and museums - a designer, a patients group representative, a creative expert in citizen engagement, a researcher in "ubiquitous culture" - to give fresh perspectives on some of the issues that we, as a field, are grappling with. Anna Kole looks at the importance of participation for patients groups, and brings up opportunities for science centres and museums to get involved via the PlayDecide game and projects like Polka and FUND. Sophia Collins and Juha van 't Zelde reveal what we can learn from football managers and reality TV shows about how to engage people in scientific culture. Online tools are just one of the many ways of opening science centres and museums up as institutions of real public participation. We intend this issue as food for thought on just how far science centres and museums could explore this path.





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Summer 2010.

heme: New markets and globalisation



While grappling with our role as places for real participatory debate, science centres and museums are faced with considerable obstacles. Andrea Bandelli, science centre consultant and the guest editor of this issue of the Ecsite Newsletter, takes a frank look at what's holding us back.

## Real participation: from fear to trust

#### Fear of engagement?

In the last decade there has been a growing interest in Europe on the role that science centres and museums play to support public participation in science, and specifically in the governance of science. Science centres in fact have the potential to be one of the most adequate platforms for the discussions and debates that enable citizens to inform and participate in the democratic development of science<sup>1</sup>. Citizen science programmes, science cafés, workshops and festivals are just a few examples of the wide variety of programmes and activities in this direction that have emerged in the field; and with the increasing use of online methods and platforms, science centres can expand the reach and impact of participatory actions.

Public participation is also the cornerstone of several European funded projects where science centres take part; projects that seek to develop opportunities and platforms to bring together policymakers, scientists and the public for the development of responsible research and science governance.

Participatory methods can be found nowadays in all aspects and activities of science centres: from the training of museum explainers to the design of new facilities and infrastructures; some institutions, such as for example the Natural History Museum in Trento, Italy, make participation the core element of their mission, positioning themselves as an "invitation" to the public to encounter and discuss the relationship between science, nature and society.

## The invisibility of science centres and museums

Despite all this activity, the field is confronted with the reality of a substantial "invisibility" of science centres to policymakers and to the discourse of participation in the governance of science.

Portuguese Minister for Science, Technology and Higher Education Jose Mariano Gago spoke in these terms in his address to the Ecsite Annual Conference in 2007, and science centres and museums are still largely absent from the current documents and reports that shape and define the European policy on science governance. When

they are mentioned, science centres and museums are seen as "communicators" and "disseminators" of existing knowledge rather than as instruments that feed back into decision making; whereas other types of initiative are mentioned as being effective and engaging opportunities to anticipate and open up the discussion on the role of science and technology in society<sup>2</sup>.

There have been of course efforts to address this lack of visibility: for example, the event organised by Ecsite at the European Parliament in February 2009 to present the activities of science centres and museums to the members of Parliament and of the European Commission<sup>3</sup>.

But the real issue is not in raising the profile of museums in the opinion of policymakers, but in a deeper reflection on the social relevance of the participatory mechanisms and activities that science centres develop and implement.

It seems to me that many science centres still have a "fear of engagement" - not of the public with science, which they actually and honestly advocate for - but of themselves with the public. Their role as platforms for dialogue, or as stated in the Toronto Declaration<sup>4</sup>, of "safe places for difficult conversations"<sup>5</sup> often remains a timid approach that does not go beyond engaging their public in discussions about science and technology without a clear concept of the aims and purposes of these discussions, and the role they will play in informing and shaping the governance and policymaking of science.

One of the reasons that underpin this situation is the conviction by many practitioners that science centres and museums are "neutral" places that present science in an objective and balanced way. 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 that science centres claim for themselves.

The factual information presented in museums can certainly be unbiased: but the meaning making





process that characterises museums depends on many social and personal factors, and it has been argued that science centres, as all museums, do in fact carry political meanings in their exhibitions and programmes<sup>6</sup>.

Without entering in the discussion on why museums can hardly claim to be neutral and objective, we should note that these concepts are often used as a shield to avoid the consequences of the "difficult conversations" that science centres host.

#### Stuck in shallow waters?

Museums have a great potential to facilitate the political participation of citizens, intended not in the sense of taking part to the "party politics", but as full participation in the systems that define and shape society.

An institution that has taken these issues at its core is the Science Museum of Minnesota, which has recently developed a new mission statement: "Turn on the science: realising the potential of policymakers, educators, and individuals to achieve full civic and economic participation in the world." However at the moment such a mission statement is rather the exception than the rule. Instead, what is still common in the field is a certain ambiguity, or tension, in the role of science centres: on the one hand a strong willingness to be "agents of change"; on the other hand, the fear of losing the "neutrality" and of compromising their assumed impartiality.

In reality what is at risk when this ambiguity is not addressed and understood is not the neutrality of science centres, but rather their relevancy and meaningfulness. Science centres risk to become stuck in what James Wildson calls "the shallow waters" of science engagement, a situation characterised by a "well-meaning,



The Natural History Museum in Trento, Italy, makes participation the core element of their mission, positioning themselves as an "invitation" to the public to encounter and discuss the relationship between science, nature and society.



professionalized and busy field, which never quite impinges on fundamental practices, assumptions and routines."

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Are science centres able to effectively support public participation?

Are museums "safe places for difficult conversations" because they care about the outcomes of these conversations or because the context in which these conversations take place is sterile and adverse to risk (and therefore "safe", at least from the institution's point of view)?

Thus, the challenge for science centres today is how to balance the social and to some extent political role that they should play as institutions contributing to the democratic development of science, with the humility necessary to be more embedded and relevant in the social structure where they operate<sup>a</sup>.

It requires a certain degree of "radical trust" that the public will not abuse the openness of the museum; but at the same time it empowers the social role of the public, sharing the authority on the content of the museum and relinquishing some control over the meaning and the purpose that it holds for the public. At the same time this approach enables museums and science centres to enter in networks and collaborations that gradually break down the "fear of engagement" by distributing the risks and by attracting brokers that connect the museum to purposeful and committed audiences and users.

The NISE network<sup>®</sup> for example, one the largest initiatives for public engagement with science in the USA, is built on these premises.

In this context, it is not difficult to see how it is the responsibility of science centres to become comfortable with the trust that the activities and the actions of the public will be meaningful and socially relevant.

A trust which is not an ambition, willingness or aspiration, but which is built with concrete actions to support it and make it explicit.

- <sup>1</sup> Einsiedel, A.A., and E.F. Einsiedel. 2004. Museums as agora: Diversifying approaches to engaging publics in research. In Creating connections: Museums and the public understanding of current research, ed. D. Chittenden, G. Farmelo, and B.V. Lewenstein, 73-86. Walnut Creek, CA: AltaMira Press.
- <sup>2</sup> See for example the recent report "Monitoring Activities of Science in Society in Europe: Challenging Futures of Science in Society - Emerging trends and cutting-edge issues", European Commission, 2009.
- <sup>3</sup> See Ecsite newsletter 78, spring 2009.
- 4 www.5scwc.org
- <sup>5</sup> http://www.ecsite.eu/?p=58
- <sup>6</sup> This discussion can be found in Macdonald, S. 1998. Exhibitions of power and powers of exhibitions. In The politics of display: Museums, science, culture, ed. S. Macdonald, 1-24. New York: Routledge.
- <sup>7</sup> "Public Engagement in Science Report of the Science in Society Session". European Commission, 2008
- <sup>8</sup> Koster, E., and J. Falk. 2007. Maximizing the external value of museums. Curator 50: 191-6.
- <sup>9</sup> Nanoscale Informal Science Education network, http://www.nisenet.org



How can we take our projects from interaction to participation, and why is it so important? Nina Simon is an international museum consultant and exhibit designer based in Santa Cruz, CA, USA. She runs the design firm Museum 2.0. In this adapted extract from her latest book The Participatory Museum she explains how science centres and museums can make the most of participatory methods, both online and in house.

# Just looking? Designing opportunities for visitor participation in museums

There are lots of compelling aspects of museums artifacts to see, stories to hear, activities to do. But when I visit museums, there's one thing that interests me more than anything else: the people. As an exhibit designer, I've always been fascinated by what visitors do in museums, how they respond to exhibitions, and how they connect with the experiences provided. Walking around museums, I love listening to the conversations visitors have around artifacts, the personal memories they share, and the opinions they offer about what's on display.

In my work, I focus on promoting participatory engagement in museums, designing ways for visitors to share their own stories, memories, and artistic creations relative to the artifacts on display. While curatorial expertise is an important part of the museum experience, I believe there are also important benefits to exhibits that invite visitors to create and share rather than just look and learn. When visitors share their own stories of a grandmother who used a kind of dish or a trip to a foreign country, it helps them connect personally to the objects on display. Visitors'

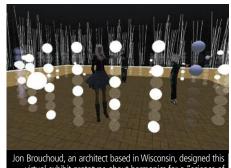
voices include opinions and ideas that may not be covered in the authoritative story of an event or place. Visitors' contributions can make a stale museum feel like a lively place that reflects the diverse perspectives of the community.

Participatory exhibitions come in many forms. In complex projects, museum staff may invite visitors or community groups to help co-design entire exhibitions. For example, I have led several projects in which teenagers and artists were invited to develop ideas for exhibitions, prototype their ideas,



Over 200 students and school administrators gathered at The Wild Center for two days in the Fall of 2009 for an Adirondack Youth Climate Summit. The goal was for each school team to develop a climate action plan with measurable steps to reduce their carbon footprint. The museum acted as the convener and facilitator of the student driven process.





Jon Brouchoud, an architect based in Wisconsin, designed this virtual exhibit prototype about harmonics for a "science of music" exhibition at The Tech Museum in San Jose, California.

and help professionals build them as science museum exhibits. In some cases, we've used online tools to work with international participants; other times, exhibitions are co-developed with a group of locals through in-person meetings.

Co-design is a powerful way to bring fresh ideas into museums and to connect people to the institution who may not see themselves as well-represented in authoritative histories or collections. When museum staff invite non-professionals to participate in the creation of exhibits, they signal their genuine interest in supporting and including those community members' stories. For example, the Vietnam Museum of Ethnology in Hanoi uses co-design techniques for many of their exhibitions, seeking out locals who might be able to contribute artifacts, stories, and ideas to projects in development. The resulting exhibits often feel more authentic and emotionally powerful than those presented in the authoritative voice of the curator.

Curators still have an important role in participatory exhibitions, but it is a role that is more focused on facilitating content collection and authenticating contributions than on generating content from scratch. I often think of myself not as an exhibit designer but as a community manager, working with participants to understand where they are coming from and to come up with creative vehicles for their objects and ideas. As a designer, I still often control the process by which they participate, but the resultant exhibits represent collaboration and shared ownership.

In Sydney, Australia, the Powerhouse Museum's 2009 Odditoreum gallery is a fine example of an institution opening up the authorship of artifact labels to schoolchildren, a children's book author (Shaun Tan), and visitors at large. Visitors had the opportunity to try their hand at writing their own imaginative label for a strange pair of shoes or giant tricycle. By focusing on speculative instead of authoritative labels - asking people what things might be instead of what they actually are - the museum was able to make

available an activity that is typically restricted to expert staff. And as visitors wrote their own labels, they weren't just having a laugh. They were examining the objects and making observations that they could tie into their stories. These are the kinds of skills that museum staff members hope every visitor will achieve - looking closely, being creative, and getting invested in the lives of objects.

Not everyone wants to write a label or help design an exhibition. Some of the most successful participatory techniques invite visitors to share their reactions to exhibits and artifacts that the museum already has on display. Consider the incredibly popular *Top 40* exhibition at the Worcester City Gallery and Museum (UK) in the summer of 2009. In that exhibition, visitors could use paper ballots to vote for paintings to move them up in a weekly "top 40" ranking chart. The paintings' ranks were tallied weekly and displayed on physical labels in the gallery as well as online and in the local newspaper. Visitors visited frequently to see how the ranks had changed and to advocate for their favorites. As Collections Manager Philippa Tinsley noted, "Spontaneous discussions broke out in the gallery on the relative merits of different pictures; visitors of all ages came back again and again to see where their favourite was in the chart that week and to cast another vote - at times they were queuing outside before we opened."

This story represents some of the benefits of participation: engaged visitors, a social, lively environment, and a sense of the museum as a place that is owned not just by the staff but by the community as well. Visitor participation isn't just a plaything, an opportunity for visitors to "do something" or "express themselves" while in the institution. At its best, participation is a substantive form of conversation, a way for visitors' voices to be heard and responded to, both by staff and by each other.

For large institutions like the Powerhouse Museum, experiments in visitor participation often begin on the Web. By inviting visitors to comment on photographs or share their own memories related to objects in the digital catalogue, staff members start to see and understand the meaningful value that comes from engaging visitors as active partners. Staff and visitors form new relationships in which information transfer goes both ways. The museum is still an authoritative source of content, but it is also a generous host for conversations, questions, and other sources of knowledge. The next step is to bring those conversations into the physical institution. Doing so requires thoughtful design, so that visitors'

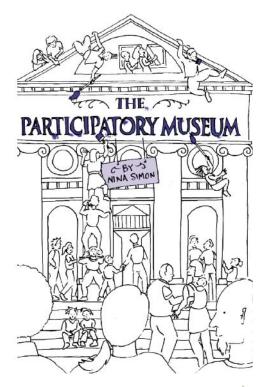


contributions can be usefully focused into a product that is interesting, educational, and delightful for all visitors. It also requires willingness on the part of staff to share their authorial control without giving up their valuable content expertise. While it's not always easy or comfortable to do, inviting visitors to actively participate in museums and cultural institutions makes those institutions better able to serve their audiences and local communities. I look forward to hearing what you think - and I hope to see it on the walls of a museum someday soon.

To respond to the article, and find out more about The Participatory Museum, see

www.participatorymuseum.org

and read Nina's blog at www.museumtwo.blogspot.com





Science centres and museums may be familiar with PlayDecide, a game of participatory democracy on science topics. Anna Kole, Public Health Project Coordinator at European Organisation for Rare Diseases (EURORDIS) looks at how this game is being used with patient groups to inform European policy, opening up opportunities for more cooperation in our field.

# **Empowering patients through participation**Polka

EURORDIS





Patients' Consensus on Preferred Policy Scenarii for Rare Diseases





Rare disease patients want to be involved in the definition of strategies and plans for rare diseases that are currently being developed at national and European level. Policymakers understand the need to involve patients and citizens at large, so that decisions on science and technology reflect public needs and concerns. How can civil society, and particularly patients, be more effectively involved in decision-making? This is the premise behind the partnership between Ecsite and EURORDIS in the POLKA project. POLKA seeks to facilitate the consultation of the European rare disease community at large, with the aim of building consensus on preferred public health policy proposals for rare diseases.

"Decide games are designed to empower patients and their representatives to become advocates for their cause," explains Anna Kole, of EURORDIS.
"The idea of the exercise is two-fold: to provide a structure that allows patients to feel safe while learning and discussing a topic that they may



know little about, and also to equip patients with the tools they need to advocate - facts, examples, and well defined arguments. Although the tools take the format of a game, they are in fact interactive exercises intended for a very serious audience with very serious needs."

In order to achieve this goal, EURORDIS is mobilising its extensive network of patient representatives to organise as many PlayDecide sessions alongside their membership events in as many countries as possible. The target is to facilitate between 600 and 1000 group discussions across Europe!

In the scope of the POLKA project, Eurordis has partnered up with Ecsite to create the following new games in 22 European languages on www.playdecide.eu

- Stem cell research
- Pre-implantation genetic diagnosis
- Neonatal screening
- Cross-border health care
- Is there any upper limit for spending on a single patient? The case of Orphan Drugs
- Diagnosis, information to the patient and genetic counselling

The games are now downloadable on the newly launched FUND website. With many innovative features, it is a vital tool to spread the games and centralise the results. Patient representatives in Denmark, Finland, Romania and Hungary have already started playing the games and decided on their preferred scenario for rare disease policy - and in their own language.

You can see the results from these events on www.playdecide.eu. The website enables users to download games and upload results into a common database. The results can be viewed by anyone visiting the site and will serve EURORDIS within the POLKA project to communicate on the preferred health policy of the rare disease community. The new open source web platform includes the following new features: ability to modify and create new games; translate games into your local language; announce events online; share an inspiring story; get support from others by joining the Facebook Group.

"The website is really interactive and participative. It is very user friendly and some of our members have already started taking full advantage of its features", says Anna Kole. "It is interesting to

#### **ABOUT FUND**

FUND is a platform to enable active players in the cities to network and create opportunities for dialogue and engagement with science.

FUND consists of:

- An open source platform which allows all interested parties to innovate on the successful "Decide" format, at www.playdecide.eu
- A scheme of microgrants (microFUNDs) to enable collaborations between science centres' and local organisations and city administrations
- Training, on-line support and exchanges of best practices among local networks are a fundamental part of this project.

FUND is coordinated by Ecsite and co-funded by the European Commission through Framework Programme 7 Science in Society. Sissa Medialab, Trieste, Italy and New Economics Foundation, London, UK are partners.

For more information see www.playdecide.eu



note that each patient group has used the games in a different way to obtain the same results." In Denmark, the rare disease national alliance used the PlayDecide game to raise awareness about rare diseases and the issues surrounding them amongst industry and politicians. In February representatives from Rare Disorders Denmark met with members of the pharmaceutical industry to discuss orphan drug policy with the help of the PlayDecide game on the cost of care (the case of orphan drugs). The debate produced a pleasant consensus: everything should be done to save a patient's life regardless of cost effectiveness. Another meeting was organised, with patient representatives and Danish politicians from three different parties, in order to play the PlayDecide game on neonatal screening. The session resulted in a vivid debate and the politicians were forced to take a stand on burning questions like: What should we screen for and who should decide? One of the main conclusions was that there must be a clearly stated purpose when screening. Also that it is important to follow up with information, counseling and treatment when a screening for a rare disease shows to be positive. The debate was observed by a journalist from a Danish newspaper, who ran a story on neonatal screening and its implication for rare disease.

In Finland, the patients' national alliance, used PlayDecide to raise awareness amongst the general public on Rare Disease Day at Heureka, the Finnish Science Center, Vantaa. The science centre proved to be a fun and accommodating place to organise PlayDecide sessions under the auspices of the Minister of Health and Social Services.

In Romania, the National Alliance organised a session of PlayDecide with staff members, volunteers and medical students on the topic of neonatal screening. "Everyone had something to gain", argues Dorica Dan, President of the Romanian National Alliance (RONARD).

"PlayDecide made our team members more aware about rare genetic diseases and their consequences and revealed to them the ethical and moral issues surrounding genetics and prenatal screening. Also, knowing that the results will be updated on the website made them believe that their opinion is important and they have a say in this issue. The experience was an eye opener for the medical students present who realised they needed more information on rare diseases."

RONARD plans to organise more PlayDecide sessions back to back with their EUROPLAN conference on June 18 and 19.

Last but not least, the Hungarian National Alliance (HUFERDIS) has started a series of PlayDecide Workshops to train moderators and to encourage



Rare Diseases Denmark organised a PlayDecide game in February 2010 with members of the pharmaceutical industry to discuss orphan drug policy with the help of the PlayDecide game on the cost of care.

participants to reproduce the experience amongst their circles of activity.

Members of EURORDIS and Ecsite were invited to the kick off session that took place at the end of March with 20 participants (patients, patient representatives, special education teachers, researchers and students from the Faculty of Special Education of the Eötvös Loránd University) who came to learn about the PlayDecide games and be trained as moderators. "The idea is to introduce them to the game and then encourage them to play with others. Workshops are free, the organiser only asks that each attendee organise one session per subject", explains Gabor Pogany, President of HUFERDIS.

HUFERDIS are recipients of a microFUND, which is a small grant especially designed to organise activities around PlayDecide from the FUND project, coordinated by Ecsite. "HUFERDIS is very happy to have received this grant and are very motivated to organise games all over Hungary,' says Beata Boncz of HURFEDIS."This grant will allow us to organise PlayDecide with our members on a larger scale by training volunteers to organise games with people who may not be aware of HUFERDIS or of rare diseases." Each of these national groups are well on their way to making PlayDecide a big hit across Europe and individually taking part in a larger initiative to learn about rare disease patients' opinions on these controversial topics in a new and innovative way. 'We find PlayDecide is a complimentary way to collect the opinions of rare disease patients in an alternative way (as compared to surveys) and a

more accessible way to allow rare disease patients to express their opinions given the simple format of the game that can be organised anywhere. It is an opportunity to bring together patient representatives around a fun yet productive activity,' says Anna Kole from EURORDIS. PlayDecide has the potential to be adapted to meet local needs. A special education teacher attending the Hungarian workshop, decided to use it as part of her PhD thesis on participative research and disabilities. She would like to adapt the games in order to make them accessible to disabled people bringing in a whole new perspective to the debate on health policy options in Europe.

Those patient groups who organise the greatest proportion of sessions in relation to the size of their organisation will be given additional incentives such as prefabricated games or the opportunity to organise a PlayDecide event in a museum or create games for additional topics. A special 2-day visit to the EURORDIS offices in order to discuss the results with members of the board and staff, in Paris or Brussels, is also envisaged. Award recipients will be decided by the POLKA steering committee at two intervals in 2010 and 2011.

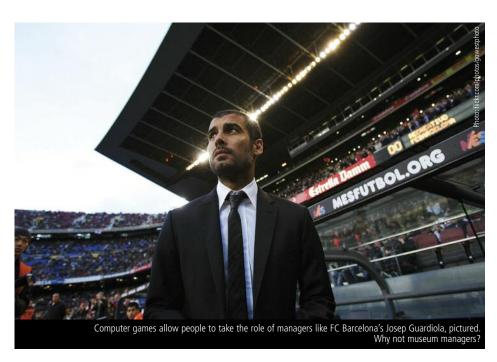
Museums interested in working with patient groups for rare diseases can contact EURORDIS through their website **www.eurordis.org** or Ecsite at info@ecsite.eu

For more information about FUND and PlayDecide, visit **www.playdecide.eu** and search for PlayDecide on Facebook to receive regular updates.



Managing a science museum, you deal with crucial questions of science and culture every day. What if the public could share in this experience? Juha van 't Zelfde is a researcher of ubiquitous culture and urban networks with VURB, a European framework for policy and design research concerning urban computational systems. He founded Non-fiction, Office for Cultural Innovation, a vehicle for experiments in art, technology and urban culture. Here he shares an idea where public engagement in science and culture meets childhood computer game nostalgia. The game may not exist (yet!), but this is the exploration of an idea, and a means of engagement...

## Who wants to be a museum manager?



It was in 1995 that I managed to get my hands on my first copy of Championship Manager 2. CM2 was a computer game in which you could be manager of any of the big (and small) teams in the English, Spanish and Italian football competitions.

The first edition appeared in 1992, and by the time its name was changed to Football Manager (FM) in 2005, the game had grown to become the ultimate sport management game, with football competitions and associated players from every continent.

You begin the game by creating a profile and selecting a team from one of the world's many football leagues.

Let us, for example, take FC Barcelona, the most successful team in 2009, with such famous players as Lionel Messi, Thierry Henry and Zlatan Ibrahimovic. When you make up your profile, you are asked to do more than just fill in your name and age. You also make a choice about how you

join the team as a manager: as a former world-class player (a Rijkaard type), a successful manager (a Van Gaal type), or as an unknown rookie with no experience at all (a Van 't Zelfde type). Let us begin as an unknown trainer: Juha van 't Zelfde, 30 years old, half Dutch, half Finnish.

The next step is that you are welcomed to the team by Chairman Joan Laporta, Johan Cruijff's famous friend. On behalf of the Board, Laporta expresses their faith in your appointment and their expectation that you will make their team the champions. With the likes of Messi, Henry and Ibrahimovic in your selection, this of course has to be possible, but should you need a little extra support, you have a transfer budget of €15 million at your disposal. Barcelona has a stadium that seats 98,000 spectators, world-class training facilities, state-of-the-art training for young players and a total budget of €664 million. You also have a staff, including an

assistant-manager, coaches, youth coaches, physios and scouts. In short, everything is just as it is in real life, and you feel responsible for the future of the team.

What makes the experience of playing FM so exceptional is the dizzying array of statistics and data that come your way. Players have more than 30 different characteristics, divided into technical, mental and physical qualities that are valued by a number from 1 to 20. The lightweight World Footballer of the Year, Lionel Messi, for example, scores 20 for flair and technique, but only 9 for strength and 10 for aggressiveness. The managers, trainers and scouts also have statistics to chart their qualities. All of these figures fluctuate. They can go up or down, depending on how you deal with the players, how you employ your staff, the shape you give to the training, which tactics you use in the games, whether you win the games, how you respond to the press and how the public responds to you. If you improve, the players improve, and vice versa. The result of all this is that you really get the feeling that you are leading the team, that your choices are deciding factors in the club's success.

After this, football is never the same again. The first time you go watch a real football game, you see it all through the eyes of an FM manager. Worse, you want the real managers to play FM as well, so that they too can make their clubs better.

When I recently played Football Manager 2010, it occurred to me how wonderful it would be to translate this to the museum world, so that you could become manager of the Tate Modern, or to bring it closer to home, the Stedelijk Museum in Amsterdam. Alexander Ribbink would welcome you, express his faith in you and entrust the collection, the museum building and the staff to you.





At the same time, he would make a budget available that you could use as you see fit. Suddenly, you would have to choose between purchasing a new work by Olafur Eliasson, appointing a new head of marketing, or developing the museum's strategy in the field of Internet and new media. That new work of Eliasson's is expensive, but it would bring in new visitors and generate a lot of international attention.

A new head of marketing could mean an indepth investment for the organisation and make all of the museum's departments more transparent. The online strategy would make the museum more approachable and accessible, but it would consume a great deal of time and require considerable external (and expensive) expertise.

Just as in FM, Museum Manager - which is of course what this game would be called - would let you begin with a smaller organisation and work your way up to the higher 'divisions'. In the footsteps of Willem Sandberg, you could make the Stedelijk a unique museum with an exceptional collection that is squarely in the middle of society and actively seek collaborations with other disciplines.

This would have consequences for relationships with the city, sponsors and other partners. If you are a success, New York's MoMA will ask you to become manager of their museum, just as happens in the football world.

Suddenly, you are in charge of an immense

collection and astronomical budgets and have an international network of experts at your fingertips. But you are expected to produce results. Can you handle the pressure?

The extra dimensions that such a game could add to the accessibility of a museum are manifold: by connecting to social networks and media like Facebook and Twitter and perhaps even Foursquare a museum can become viral and ubiquitous, be omnipresent, portable and

shareable for any player. By visualising progress and rewarding achievements, players can become ambassadors of museums like they are now of their favourite bars and clubs in cities; and by mapping players, objects and unfolding scenarios, new threads of information weave an ever-expanding interactive museosphere that is queryable.

It will have its purpose not just outside the building, but also inside: as a training tool for junior staff member, or as an instrument for research and development for conservators and curators, using the artificial intelligence game engine to experience possible results of their exhibition strategies.

This will not be just a solitary museum experience, but possibly the first ubiquitous massively multiplayer online serious game, exploring not only the inside of the museum (the art and the organisation behind it) but the outside also: the possible things a museum can be. It might just change our understanding of what a museum is.

I cannot wait to play Museum Manager.
Then, the first time I go back to visit a museum, I will observe it through the eyes of an MM manager. Moreover, I will want real museum managers to play MM, so they too can improve their museums.





Could online tools be the key to engaging teenagers? We take a look at one way this is being done outside of science centres and museums, in the form of the UK online teen science event "I'm a Scientist, Get me out of Here!" Sophia Collins, the producer of the event, shares the secrets of its success.

## The secrets of engaging teens with science



I'm a Scientist, Get me out of Here! is an online event where school students choose which scientist gets a prize of £500 to communicate their work. The title comes from the popular UK reality TV show "I'm a celebrity, get me out of here!" where contestants are voted off one by one. Scientists and students talk on this website. They both break down barriers, have fun and learn. But only the students get to vote.

The event was run in the UK for two weeks between March 15-26. Around 1,400 teenagers in 70 schools around the UK participated, probing and evaluating the work of 25 scientists through on-line questions, answers and chats. The next event in the UK is scheduled for June 14 - 25 2010. The event is kindly funded by medical research charity the Wellcome Trust, to promote public engagement with biomedicine.

Find out more about the project at www.imascientiace.g. www.imascientist.org.uk

"itz hometime but we want to stay and ask questions"

These are the words of a 14 year old student, at a school in inner-city London. The school has some of the poorest academic results in the school district, well below the national average. And yet a classroom science activity had the students so gripped that when the bell went for the end of the school day, they insisted on staying for another 15 minutes to ask more questions.

The students are having an MSN-style online chat with some scientists. They started with fairly simple questions, 'How long have you been a scientist?'

and 'Why is the sky blue?' But then something happens - the immediacy of the chat format, the inventiveness of teenage brains, the unexpected experience of a grown-up seriously answering their questions - and the chat starts getting richer. You can see the ideas bouncing off each other and going in all directions.

By the end of the chat this class had moved from a question about whether science could ever stop ageing, to discussing what the world would be like if people didn't die.

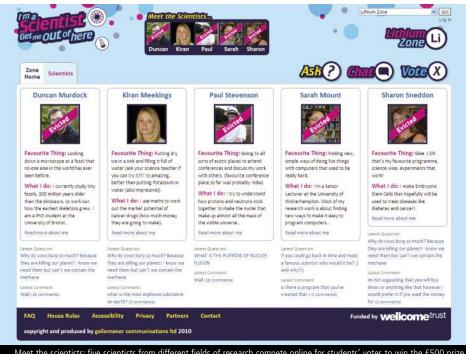
And there were all sorts of other random conversations along the way. Everything from favourite popstars, to how blood circulates, to what it feels like if another scientist scoops your work. After another chat, one of my staff (a usually cynical young man) brought a tear to my eye by declaring it was "an honour to be associated with the event".

When I asked why, he said, "The kids are so excited, and they are asking guestions I know I've never asked or even thought of..."

Live chats like this are part of the event I run, I'm a Scientist, Get me out of Here! We were blown away the first time students insisted on staying after their lesson finished, "when normally they've got their coats on before the bell has finished ringing" as one teacher told us. After a while though we started taking it for granted, it happened so often.

As well as these live chats, students submit questions for the scientists to answer on our website. This gives an opportunity to go into more depth, and extend the conversation over days. Feel free to have a browse, if you don't mind getting distracted for the next couple of hours. We're constantly amused, intrigued and impressed by the questions students ask, from "What is it about humans that led to us inventing science?" to "Do vou think that robots will ever rule the earth?"

One scientist told me that this was "the most science-related fun I've had in ages," while a teacher emailed to tell me her class was splitting into fan clubs for the different scientists.



Meet the scientists: five scientists from different fields of research compete online for students' votes to win the £500 prize





Educational material was also developed for in-school activities to accompany the event

"with the sort of devotion they've only had for pop stars up until now."

Teenagers are notoriously the worst audience to engage, so what is it that gets this response from them? I've spent years working on this event format, and naturally I've got a few theories.

## Doing it online makes it less intimidating and more intimate

I'm not saying we should do away with face-toface. I think that can be a great way of getting kids engaging with scientists. But do you remember people coming in to school to give talks when you were a teenager?

Who put their hands up to ask questions at the end? Usually, the clever kids who can think of questions the teacher will approve of. And possibly the naughty ones who want to be cheeky.

I'll tell you who didn't. Not the shy students. Not the ones who got lost five minutes into the talk and really would have liked to ask what the guy was actually talking about. Not the ordinary middling students who can't think of a smart question but desperately want to know if it's scary sometimes being a policemen or where astronauts go to pee. Doing it online makes it much easier for kids to ask the questions they actually want to ask, and then they can start getting interested.

# Teenagers are actually desperate for the chance to talk to grown ups

For many kids the only adults they ever get to talk to are their parents and their teachers.

They are on the cusp of the big scary adult world, they really don't know what it's going to be like and they want people to answer their questions!

Once they realise these real live scientists are actually going to do this, those questions about the adult world start pouring out. "Do you get on with the people you work with?" "Do you ever get bored at work?" "How did you decide what to study at University?"

I also think sometimes they can't quite believe they'll be able to pull off being a grown up. And becoming a scientist? Way too intimidating! Lots of teenagers are convinced that scientists are all Einstein-like geniuses, so they couldn't become one themselves.

When they realise, as one girl put it, that "scientists are just like normal people!" it's a revelation. The scientists talk about their holidays, their pets, their favourite jokes and suddenly students can see that these are people like them, and they could grow up and be a scientist too.

And lastly, the true secret weapon...

#### Giving students some power engages them much more deeply

The scientists are competing for a prize of £500 (€570) to communicate their work and the students are voting who gets it.

This makes the young people feel that they are being taken seriously, for once. Don't we all get turned off things if we aren't listened to and feel we don't have a say? No-one wants to be lectured at, but that is what happens to teenagers all the time.

But it's not just that they feel less ignored; giving students a vote and some money to allocate makes everything real - it's not just an essay or a classroom debate about science ethics. It's not an academic exercise. We're



saying, here's some actual money - who do you think should get it?

To answer that question for themselves, students have to really think.

And they raise all sorts of issues: How can we know what the outcome of research will be? How can we weigh one kind of knowledge against another? Imagine you had a medical advance that would save a small number of lives, how could you possibly weigh that against a different medical advance that improved the lives of a much bigger number of people? These are thorny issues in science funding and teenagers engage with them, because they are actually being asked to decide.

I'm not pretending that all the teenagers cast their vote for the highest of reasons. Some will vote for the scientist who likes the same band as them. Or whose joke made them laugh. Or who's got the nicest photo. But I'm prepared to bet they still do that having thought more about complex science and society issues than they were probably going to otherwise. And it leaves them with a sense that these issues are something it's possible for them to have a say about, so it's worth them thinking about them.

We need a populace who can engage with science and engage in discussions about science. There are decisions that have to be made as a society, not by experts behind closed doors. Students who have cast their vote in I'm a Scientist feel that science is a thing they are part of. And that makes all the difference.

This article was originally printed on the 2020 Science blog:

http://2020science.org/2010/04/13/im-a-scientistget-me-out-of-here/

## **NEWS FROM ECSITE**



The project PLACES - Platform of Local Authorities and Communicators Engaged in Science, coordinated by Ecsite - will start on the 1st June 2010. PLACES is a four-year European project establishing and developing the concept of the European City of Scientific Culture.

### PLACES to start on June 1st 2010

Ecsite is pleased to announce the launch of a large-scale European project: PLACES. The project focuses on developing and strengthening City Partnerships, bringing together 67 science centres, museums, festivals and events, each partnering with local authorities, and 10 European regions. The project facilitates cooperation among these alliances to structure their science communication activities, sharing tools, resources and results.

To do this, PLACES establishes a working community that will share activities, resources, ideas and innovations. The operational links stimulated by PLACES will generate much new knowledge, contributing to develop the whole field of science communication, and will impact citizens and policymakers with the social, cultural and scientific added value of scientific culture.

Ecsite PLACES Coordinator Antonio Gomes da Costa explains how the project came about: "The PLACES project takes as its starting point the existing best practice already implemented in science communication institutions and their local partnerships. With PLACES, we have the opportunity to spread this best practice, structuring and deepening these city partnerships right across Europe. PLACES aims to catalyse the move from occasional city-level collaboration to long-term dynamic local networks, strengthening the impact of this work. As such, one of the major results will be a solid set of recommendations for the notion of the European City of Scientific Culture."

PLACES is funded under the European Commission's Framework Programme 7, whose aim is to stimulate the harmonious integration of scientific and technological endeavour and associated research policies into European society, building an effective and democratic European knowledge-based society.

As well as the project's initial partners, many more actors and stakeholders are encouraged to participate in PLACES during and after the project lifetime. After the four years of the project, a new and wide European community will continue to

share and exchange ideas, experiences and information on Science in Society issues.

The work developed in PLACES will provide a wealth of data, good practices and innovative strategies concerning Science in Society issues. Besides the valuable knowledge contributing to the advancement of the science communication field in general, PLACES will produce concrete recommendations for policymakers and the EU regarding the engagement of citizens, local authorities and the key role of science communicators in the development of the Cities of Scientific Culture.

#### **OBJECTIVES**

The main PLACES objectives are:

- To develop and promote the City of Scientific Culture as an operational concept and as concrete practices, empowering citizens and policymakers to incorporate science and technology into the democratic life of citizens and local / regional governments
- To establish a common platform to promote cooperation, offering a wide and diverse community of actors a means of structuring their science communication activities
- To deliver appropriate recommendations on the "City of Scientific Culture" and on science communication strategies, to city partnerships, local authorities and the European Commission.
- To create solid ties between hundreds of cultural and scientific actors and to structure a lasting community of professionals engaged in Science in Society issues.

#### **PLACES TOP PRIORITIES**

In PLACES, whatever the scientific disciplines involved, participants will have to put emphasis on controversial issues.

PLACES aims to engage actors on topics that are widely considered difficult to address, and will select the activities where the public is explicitly engaged and has a real possibility to express views.

The two main priorities in PLACES are:

- Engage the local authorities and other science communication actors in controversial issues
- Focus on two-way dialogue and public engagement

#### **STRUCTURE**

PLACES brings together three networks: Ecsite (www.ecsite.eu), the European Network of Science Centres and Museums (coordinating partner); EUSCEA (www.euscea.org), the European Science Events Association; and ERRIN (www.errin.eu), the European Regions Research and Innovation Network.

A fourth partner, the Observatori de la Comunicació Científica of the University Pompeu Fabra, in Barcelona, will be responsible for the Impact Assessment of PLACES.

46 Ecsite members, 21 EUSCEA members and 10 ERRIN networks are the PLACES Third Parties, who are already committed to working on the project. A list of each Third Party can be found on the PLACES page at www.ecsite.eu.

Given the breadth of the project and to widen the scope and relevancy of the results of PLACES, a Stakeholders Assembly will be implemented, with members such as media, universities, research centres, NGOs and private companies. The Stakeholders Assembly will provide advice and comments, and validate the outputs of the project.

The project is managed by a coordinator team from Ecsite, the Coordinating Partner, with the support of an Executive Committee specific to PLACES and composed of 11 persons belonging exclusively to the Consortium.

For more information, contact Ecsite PLACES Coordinator, Antonio Gomes da Costa: agomesdacosta@ecsite.eu

## **NEWS FROM ECSITE**



## OPENSCIENCE RESOURCES PORTAL NOW ONLINE

The Open Science Resources (OSR) portal is a highly organised interface that enables you to access the finest digital collections in European science centres and museums, follow educational pathways connecting objects tagged with semantic metadata and even enrich the contents provided with social tags of your own choice. The portal was developed by a consortium of European partners taking part in the Open Science Resources project, coordinated by Ecsite and cofunded by the European Commission under the eContentplus programme.

Sign up now to explore the online content, add your own content and create learning pathways now: www.osrportal.eu

For more information contact Jennifer Palumbo, Ecsite Projects Coordinator: jpalumbo@ecsite.eu

#### OPEN NANO LAB GUIDELINES NOW AVAILABLE

The experience of NANOTOTOUCH served as the basis for the creation of an handbook,

"Professional guidelines for establishing an Open Nano Lab", which will describe the structures and capabilities necessary for the communication of research and the discussion of all the social, ethical and social aspects surrounding nanotechnology.



To order the handbook, please contact Paul Hix: p.hixdeutsches-museum.de

For more information about NANOTOTOUCH, please contact Jennifer Palumbo, Ecsite Projects Coordinator: jpalumbo@ecsite.eu

## PILOTS PROJECT SET TO RELEASE FINAL RESULTS

Since it began in October 2008, the Pilots project has produced four European training workshops for the professionalisation of science centre and museum explainers in Mechelen, Milan, Paris and Dortmund. But the training courses are only one element of the project - Pilots has brought together 500 explainers online from across Europe on the Pilots Hub web community. The project has raised awareness of the role of the explainer throughout its activities, including the follow-up Co-Pilots events which are taking place in every institution which sent explainers to Pilots events. The final results of the project include a full report into the quantitative and qualitative research that Pilots undertook into the role and training needs of the explainer, and the full set of educational materials produced by the project partners and refined through the four training courses.

For more information please contact Michael Creek, Ecsite Projects Coordinator: mcreek@ecsite.eu or see www.thepilots.eu for details.

#### **XPLORE HEALTH**

Xplore Health is a European project, coordinated by Barcelona Science Park to build and promote an online portal on the latest health research. The portal will contain multimedia tools for public engagement, and will be linked to activities in science centres, museums and schools, that will nurture public engagement with health research and its wider ethical, legal and social aspects. Project partners are Barcelona Science Park, Ecsite, European Schoolnet, Centre of the Cell and Ubach Munné y Asociados. The project duration is 32 months.

Modules of the website will be published every three months from September 2010, each module covering a different subject. Use of Web 2.0 tools will stimulate direct feedback from users as well as the submission of new contents by qualified scientists and press officers. Throughout the project, activities will be organised in schools and museums around Europe in parallel with an intense promotion at European level.

Tools developed by the project will include:

• Videos: where an introduction to the health issue will be made, with background

- information together with state-of-the-art research contents facilitated through interviews with European researchers.
- Eight new dialogue games: These tools introduce policymaking as a process where different choices and options are available. Through dialogue and listening to different points of view the participants realise the complexity of policymaking.
   Eight new games will be designed for the project, and translated into four languages.
- Experiment protocols describing an experiment which will be developed in different open labs in Europe, inviting the public to participate in state-of-the-art European research.
- Virtual experiments: an opportunity for the user to virtually recreate current research experiments and to get an understanding of what research is.
- Animations to explain projects and scientific principles with interactive graphics,
- Educational packs which will be developed in such a way that even audiences outside the educational community may use them.



The five Xplore Health outreach institutions have now been selected after a call to all Ecsite members: we are happy to be working with Domus in A Coruña, Spain, Jardin des Sciences in Strasbourg, France, Centre for Life, Newcastle, and At-Bristol in the UK and Copernicus in Warsaw, Poland to test and develop open lab activities using the results of the latest European health research, linking science centres, schools and patients groups through an online portal.

For more information please contact Michael Creek, Ecsite Projects Coordinator: mcreek@ecsite.eu or see the Ecsite website at www.ecsite.eu.

## LISTINGS



This issue, we take a look at how Ecsite members are using online tools to engage their visitors. You can follow the Ecsite Executive Office on Twitter (@Ecsite) and check out our Twitter feed of all the science centres and museums across Europe (euro-science-ctrs-museums).

## NEANDERWEB2.0: NEANDERTHAL MUSEUM SOCIAL NETWORKS

www.neanderthal.de, the website with many new functions, designed for adults and kids, interactive and RSS-feed-enabled, relaunched in 2008.



Since February 2010, the museum has started social networking successfully: 300 Facebook fans, 700 Twitter followers and 200 - 300 subscribers per blog article in a short time. The museum plans to use other Web 2.0 tools like Flickr and YouTube in the near future.

#### Neanderthal Museum, Mettmann, Germany

Contact Sebastian Hartmann:

hartmann@neanderthal.de

www.neandertal.de

Facebook: search for Neanderthal Museum Twitter: http://twitter.com/Neandertal1 Blog: www.neanderthal.posterous.com LVR-Industriemuseum and Westmoreland Museum of American Art (US), this blog-based exchange brings together high school students from Ruhr Valley regions and Pittsburgh, creating cultural understanding of each region through technology.

American Association of Museums and facilitated by

#### LVR-Industriemuseum, Oberhausen, Germany

Contact: transatlanticbridge2010@yahoo.com http://buildingatransatlanticbridge.blogspot.com/ celebrate, the Museon is publishing a blog about the weird and wonderful world of wildlife. Pictures and reports to make you think about things happening all around us but seldom noticed. Up-to-date news of the natural world coming to you almost daily through to the end of winter 2011.

#### Museon, The Hague, Netherlands

Contact info@museon.nl

Find the blog at: www.wildewijdewereld.nl www.museon.nl

## SCITECH'S TECHNOLOGY PROGRAMME

Scitech's Technology programme gives Year 8-10 students access to new media learning tools to develop and complete tasks. The programme is delivered via a specially-equipped 'Techno Truck' that visits schools throughout Western Australia and includes a mobile computer lab of iPhones and MacBook Pros. Students use these tools to video document their constructions and investigations which they then edit and publish

#### Scitech, West Perth, Australia

Contact Kate Elder: Kate.Elder@scitech.org.au www.scitech.org.au

## MUSÉE DES ARTS ET METIERS

The Facebook page of the Musée des arts et métiers puts in place a real exchange with our visitors thanks to a less formal tone than the official website



The Dailymotion page hosts video presenting the collection and temporary exhibitions. And Technix Museum is a video game online aimed at the junior public of the website of the Musée des arts et métiers.

#### Musée des arts et métiers, Paris, France

Contact Coline Aunis: coline.aunis@cnam.fr Facebook: search Musée des arts et metiers www.dailymotion.com/musee\_des\_arts\_et\_metiers www.technix-arts-et-metiers.com/index.php

## BUILDING A TRANSATLANTIC BRIDGE

Funded by a grant of Museums and Community Collaborations Abroad, a programme of the Bureau of Educational and Cultural Affairs of the US Department of State in partnership with the



# WILD WIDE WORLD: NEWS OF WILDLIFE HAPPENINGS TO BRIGHTEN UP YOUR DAY

2010 is the International Year of Biodiversity. To



## ONLINE CONNECTION FOR A BETTER INTERACTION

Tunis Science City has initiated three online tools: a website, an online newsletter entitled science

## LISTINGS



for all, and a Facebook page. The public can give their suggestions, comments and points of view about the events they have already attended and those they would like to see, and even book visits to Tunis Science City's exhibitions and activities.

#### **Tunis Science City, Tunisia**

Contact Adel Zouaoui: zouaoui@cst.rnu.tn www.cst.rnu.tn

## **EXPERYMENT SCIENCE CENTRE ON FACEBOOK**

EXPERYMENT constantly gains new opportunities to reach both its visitors and people interested in science and education.

In 2010 its fan page on Facebook was established, and the number of fans is constantly increasing. The EXPERYMENT fan page gives them fresh information on actual events, present films and photos. Meet us on Facebook!

### **EXPERYMENT Science Centre, Gdynia, Poland**

Contact Natalia Grzywacz-Leszkowska: n.grzywacz-leszkowska@gci.gdynia.pl www.experyment.gdynia.pl

## THE BRAIN: USE IT OR LOSE IT

In this travelling exhibition, currently on show at Experimentarium and available for rental from October 2012, visitors are guided into a wide range of capacities of their own brain. This experience starts on the exhibition website, continues at the exhibition guided by a personal guiding-system and concludes on the web with a personal homepage.

#### Experimentarium, Hellerup, Denmark

Contact Nils Hornstrup: nilsh@experimentarium.dk www.experimentarium.dk

## NATURE AND BIODIVERSITY NEWS & VIEWS

News & Views features short articles on biodiversity and the natural world written by experts.

Aimed at a general audience, users can share views via text and multi-choice questions. Topics

include invasive species, biofuel crops, and farming & wildlife. The interactive site could be used in education programmes. We are happy to discuss ideas for its development.

### Centre for Ecology & Hydrology and the ALTER-Net European network

Contact Andrew Sier: arjs@ceh.ac.uk http://newsandviews.ceh.ac.uk

## **ONLINE TOOLS FOR INFORMATION DIFFUSION**

Monastir Science Palace uses different tools to diffuse information to its participants and visitors: a web site in three languages, a newsletter to inform its participants about the news and the coming events and a special Facebook page "Friends of Monastir Science Palace." It also announces its events through the Centre du Calcul Khawarizmi portal.

Monastir Science Palace, Monastir, Tunisia Contact: psm@psm.rnu.tn www.psm.rnu.tn

## MUSEOS CIENTÍFICOS CORUÑESES IN WEB 2.0

The Museos Científicos Coruñeses use several free Web 2.0 services to share their activities. Pictures from new exhibitions are uploaded to Flickr, self produced videos are uploaded to YouTube, and news is published on Twitter.

The use of these services provides high interactivity with visitors and allows us to contact members of the public that have not been reached before.

#### Museos Científicos Coruñeses, A Coruña, Spain

Contact Susana Perez-Castelo: susana@casaciencias.org www.casaciencias.org

#### **SCIENCE DEBATE**

Science is continually breaking new ground in GMOs, cloning etc. developing a wealth of knowledge with enormous promising benefits for the public.

But the development on these fields could also have a negative or ethically controversial outcome. In the museum lobby, our visitors have the opportunity to watch short video



presentations which challenge their views on such disputable topics.

They can later post their thoughts and comments in the relevant discussion area of our Facebook page.

## Science Center of Thessaloniki and Technology Museum, Thessaloniki, Greece

Contact Eleana Balla: balla@noesis.edu.gr www.facebook.com/NoesisScienceCenter

## "MY VILVITE" PERSONALISED WEB PAGE

To enhance visitors' experience and strengthen learning, VilVite has integrated the visit to our centre and the web. Based on the "Learning Lab" (by Expology) and a RFID ticked we offer our visitors post-visit retrieval of information and video clips from their visit. After having registered on our terminals during the visit a personal "My VilVite" password protected page is created on our site.

#### VilVite, Bergen, Norway

Contact: sad@vilvite.no www.vilvite.no



#### COURSES • CONFERENCES • COMPETITIONS



#### **ESOF 2010**

#### July 2<sup>nd</sup>-7<sup>th</sup> 2010, Turin, Italy

Euroscience Open Forum - is the biennial pan-European meeting dedicated to scientific research and innovation. The fourth edition of ESOF has now entered its final course.

ESOF2010 is a unique opportunity for meeting science operators in Europe. Under the slogan "Passion for Science", scientists of all disciplines, teachers, journalists and representatives of industry, as well as the public at large, will meet to present and discuss the frontiers of scientific and technological research, the relationship between science and society, policies for promoting innovation and fostering cross breeding between science and business. The core of ESOF2010 is the Scientific Programme which offers close to 150 sessions and over 450 speakers from 40 countries. The registration for the conference is open.

For more information visit www.esof2010.org

#### The BIG Event 2010

#### July 21-23rd 2010, Newcastle, UK

For the first time, the Event will be jointly hosted by two organisations with a completely different approach to science communication - the Centre for Life in Newcastle and Culture Lab. A draft programme is now online - and it's not too late to get involved! Improve your own practice, join the most important discussions of the science communication current agenda, and form a network of science communication professionals. This year's programme is based on the theme of "Parallel Worlds", where STEM communicators can learn from other sectors - as well as contribute to other organisations.

For more information see www.big.uk.com/bigevent

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## NORDIC SCIENCE CENTRE ASSOCIATION ANNUAL CONFERENCE: "VISITORS LEARN AT SCIENCE CENTRES"

#### September 15th-17th 2010, Vantaa and Helsinki, Finland

Heureka, the Finnish Science Centre and the Finnish Museum of Technology have the pleasure to invite you to this year's Annual Conference to be held in Vantaa and Helsinki, Finland, on September 15-17. The theme is topical: "Visitors Learn at Science Centres". The NSCF is very pleased to announce Professor John Falk of the Oregon State University as keynote speaker. He will speak on Thursday, September 16, on the theme "Identity and the Museum Visitor Experience". The Conference fee will be around 240 euro including all receptions, lunches, coffee breaks and excursions in the programme.

For more information, contact Ms. Päivi Garner at Heureka: paivi.garner@heureka.fi or see the NSCF website: www.nordicscience.org



European In-service training course: School and science museum: cooperation for improving teaching, learning and discover

7<sup>th</sup>-14<sup>th</sup> November 2010, Munich, Germany

The objective of the course is the development of knowledge and competences relative to science education through the use of museums as educational resource. After the great success of the first three editions, the fourth edition of the course takes place again at the Deutsches Museum of Munich. The course will be held by a group of experts from Belgium, France, Germany, Hungary Italy and Spain specialising in museum education, science education, teacher training, research and evaluation, new technologies, etc. The course consists of lectures, round tables, museum visits, interactive workshops and practical activities. The language of the course will be English but the materials used will be available in different languages. Primary school teachers and museum educators who are citizens of the countries-participants in the Socrates Programme are invited to participate. Both teachers and museum educators interested have the right to apply for funding of the expenses of the course through Comenius or Grundtvig grants.

For more information, see www.museoscienza.org/smec

