9.
Presenters and presenters' institutions

Annette Smith National Science Week & The BA Festival of Science, UK

9.1
General overview

The presenters at Science Communication Events are crucial to the success of these projects. They are the interface between the subject matter and the audience or they are the facilitators of a discussion. Because of the way that most of the Science Communication Events we observed have grown up, there is often too little emphasis on the ability of presenters to communicate their message. Too often, we find that scientists with insufficient training are plunged into Science Communication Events resulting in a less than perfect experience for them, and for the audience. This is particularly unfortunate as one of the key elements of the Science Communication Events described in this book is the direct contact which they provide between real working scientists and the audiences. This feature is one of the distinguishing elements of Science Communication Events. In many cases, however, natural talent is discovered and nurtured and the experience is rewarding for all. This chapter aims to collect some of the excellent practices we have observed in visiting Science Communication Events across Europe to help our colleagues in finding and developing effective, engaging presenters.

Types of presenters

The nature of the different Activities demands a variety of qualities in the presenter. For example, a talk on a scientific subject of great interest to an adult audience needs a presenter with very different qualities to a hands-on Activity for young people, and a science café requires a facilitator with further different abilities. The following table outlines some of the formats of Activities and some qualities one would look for in a presenter (see next page).

Activity	Presenter qualities
Talk for an adult audience	• Engaging speaker • In-depth knowledge of the subject • Able to answer questions succinctly • A sense of humour
Hands – on activity for young people	• Able to explain briefly and clearly the purpose and background to the activity • Pleasant, relaxed manner with young people • Practically skilled at performing the Activity • Able to answer questions about the subject matter • Creative with unexpected situations
Science theatre show performer	• Skilled, convincing performer with good stagecraft • Knowledgeable about the subject matter • Able to engage the audience
Experiment demonstrator	• Skilled at performing the experiments • Able to engage the audience at the same time
Facilitated discussion (eg Science Café)	• Prepared to be the "voice of the audience" • Quick to pick up audience members who wish to speak • Skilled in keeping comments and points brief and to the point – even with VIP speakers and talkative members of the audience • Skilled at injecting pace into the discussion
Poster exhibition	• Prepared to engage with the visitors • Helpful and courteous

Because of the nature of many Science Communication Events, presenters have been drawn from a variety of sources, and sometimes the requirement to be knowledgeable about the subject matter means that less emphasis has been placed on the need to communicate effectively. The choice of presenters has sometimes been less selective than might be wished for.

9.2 Different models for presenters and analysis

The following recommendations for good practice were extracted from the visits to Events and from the experience of the team:

1. Give presenters experience in presenting
Often research students and lecturers are recruited – but it seems that when they have had even a little experience of presenting Science Communication Activities, their abilities increase markedly. (Austria, Stuttgart)

2. Give presenters feedback in a "dry run" situation
Where presenters are "learning" it is important for them to receive some feedback is in order to be able to improve. They can be asked to give their presentation in front of the organiser and a few others and constructive criticism is then offered. This can be configured as a "self-help group" for a number of presenters, and can be enhanced by filming or audio recording the presentation.

3. Don't be afraid to "audition" presenters
If you are selecting from a number of possible presenters, and especially if you are paying for a presenter's services, auditioning or making sure that you see a presenter in action before you hire them can be very helpful. (Edinburgh Science Festival)

4. Produce "presenting tips"
Many organisers feel inhibited by the idea of instructing distinguished scientists in presentation skills, however, the organiser is the expert in running an event. A set of notes and tips may be more appropriate for some people. An example of some presenting tips used at the BA Festival of Science in the UK is shown below. Also, as happens in Austria, pre-Event conferences for the presenters can improve their skills.

5. Use presenters who will connect with the audience
There are no hard and fast rules for this. Professor Stephen Hawking connects with an audience brilliantly using an electronic voice and no body movement at all, and any experienced Science Communication Event organiser will have encountered many similar examples. Note that young people relate well to other young people, and students are closest in age to children. One of the most exciting and dynamic science festivals in the visit programme used children from the age of around 5 as presenters, and this was particularly effective in attracting a young audience. (Madrid Science Festival) Visitors will look around for "someone like me" at an Activity, and will be happier and more relaxed as soon as they realise that they are not alone.

6. Communication courses
Some Science Communication Event organisers offer communication courses to presenters. They can include written and oral techniques and last for a few hours or a few days. Experience shows that these courses must be tailored carefully and sensitively to the presenter's own requirements and experience. (Genoa Science Festival, International Science Festival Göteborg and others)

7. Share experience
Ask fellow organisers for recommendations, and share your information with others. This is particularly useful when looking for facilitators of discussion Activities, who may come from the worlds of broadcasting or print journalism.

8. Make sure that presenters are aware of any legal requirements
It is up to the Event organiser to make sure that there is a strategy in place to ensure compliance with all relevant legislation as it applies to presenters. Risk assessments may be required, or child protection legislation which requires a criminal record search or there may be issues of intellectual property rights and insurance. Presenters should also be aware of people in the audience with special needs such as mobility and hearing difficulties.

9. Offer educational advice
Presenters who are new to creating Activities for school-aged children may need advice about the current science curriculum in schools – be prepared to help them with this and to put them in touch with experts if needed. The chapter on "education" in this book will help with the principles of informal education.

10. Consider how presenters might learn from each other
If presenters have the opportunity to see the reaction to other presenters, or to network and swop experiences, they have an opportunity to learn from each other.

Rewarding presenters

In the vast majority of cases observed for this project, presenters are not paid for their time. This is something of an anomaly as they are so central to the success of the Event. They take part in the Events because they have been encouraged to do so or their research funding includes a requirement to involve the public, including young people, in the work that they do. Most often, presenters are reimbursed for their travel and subsistence costs. In spite of this lack of financial reward, it is important to recognise the value of presenters in some way, and organisers should build this into their planning. Most organisers will write to thank volunteer presenters, others will thank their institutions – some may issue certificates if appropriate.

There is, however, a growing resource of professional science presenters. Using these as presenters for a Science Communication Event gives the organiser some control over quality, but can lose the freshness that a volunteer brings. The use of professionals is obviously a budget-based decision and negotiation may be helpful, while realising that a professional may have no other source of income.

9.3 Best practices and outstanding ideas

During the visits to European Science Communication Events, a number of different examples of good practice were encountered for the selection of presenters. The richest sources of presenters in general were the universities and research institutions. The following are some of the practices used and observed:

- In Austria the presenters were drawn from universities, companies and schools and also included 41 of Austria's most illustrious scientists
- Also in Austria, many of the institutions had experience in doing popular hands-on Activities, so the presentations were of a high standard and very interactive
- In Stuttgart, the lack of experience showed as many displays were overly scientific and too detailed
- Also in Stuttgart, however, the experienced presenters found the right tone to communicate effectively with visitors, and the visitors especially appreciated additional personal explanation of the exhibits from the exhibition guides.
- Thirty Catalan researchers visited thirty schools to talk about their research and also their personal experiences. They had a practical and approachable attitude which was very successful with the young people.
- For Edinburgh Science Festival, the presenters are selected by interview and audition leading to very high quality science shows and hands on Activities in the main section of the Festival.
- The quality of presentation was found to be significantly lower in Edinburgh among less experienced presenters
- A rich source of presenters in Edinburgh was found among writers of popular science books who combined the Activity with an opportunity to promote their latest book.
- In Portugal, school pupils do research projects alongside real researchers, so there is a close relationship with the presenters
- In Madrid the children become the presenters. Young people from the age of five upwards run the hands-on Activities in booths for the general public.

- In Wrocław, ministers of religion (professional communicators!) take part in the science festival
- In the UK professional broadcasters and journalists facilitate discussion and "in conversation with" type events
- In Sweden, the presenters were offered a free two-day workshop, developed at Stanford University, where their communicating skills were trained.
- In Denmark, staff from the children's library run and present events
- In Denmark and in the UK talks for schools are "franchised" during Science Week. Schools are given a programme of speakers to choose from – this allows the organiser to check carefully the ability of the presenter before offering them on the programme.
- In Poland a well-known TV producer takes part in informal training sessions for presenters.
- In Germany TV journalists run hands-on Activities and science shows
- At several Events there are presenters from other fields, such as firemen, policemen, stonemasons, medical doctors and other health workers

9.4 Summary

We have seen a great variety of presenters while engaged on this project, from many types of institution. None come with a guarantee that they will be successful in conveying their message and engaging their audience. Some conclusions and recommendations can be drawn, however, which could be helpful to those who plan to run Science Communication Events:

- When looking for presenters, think first of the audience. Children and young people respond well to young researchers who can communicate with them and are familiar with their world.
- Experience is very valuable – many times in compiling this chapter the writer has found examples of presenters who have been involved over a couple of years then becoming expert. So to complement a training session, some hands-on experience is very valuable – introduce a few new presenters each year to "increase the stock"
- Just because a scientist is well known and distinguished doesn't mean that he or she is a good communicator. Make sure that any scientist presenter speaks for a maximum of 30 minutes and is prepared to answer questions. Ask to see Powerpoint presentations in advance of the Activity and be sure that these are of suitable quality and not too numerous.
- Don't be afraid to audition presenters. If using professionals, ask to see a presentation before you book them for your Activity.
- Provide guidance and training. In addition to communication skills, make sure that presenters are familiar with the place where they are going to operate and with the location of equipment, audio visual equipment etc. Sufficient background information will allow them to relax and perform well.
- Don't forget that some of the very best presenters get very nervous and apprehensive before an event. Help them to relax and make sure that they are well looked after, with plentiful tea and coffee. Hold any drinks reception after the presentation.

- Pay great attention to safety and security. Make sure that presenters are police checked if they are to be in contact with children and that they give full risk assessments for their Activities. Do not use anyone who will not agree readily to these procedures.
- Use non-scientists as science show actors (Ireland, UK)
- Encourage the participation of many local initiatives with a non-scientific background (light houses in Portugal, fire departments in France and Warsaw, police investigations of crime acts in Wrocław and Warsaw) etc.
- Invite presentations on scientific achievements for the conservation of artifacts (Genova, Wrocław, Warsaw, France, UK),
- Invite experts in the Arts (music, dance, paintings, sculptures, photography) and the history of arts (Vienna, Warsaw, Wrocław).
- Encourage patrons and sponsors to present their own activities (Genova, Warsaw, Göteborg)

10. Funding

Peter Rebernik ScienceWeek @ Austria

10.1 General overview

The quality of the organisation of any Science Communication Event depends on the objectives set for the Event and the budget available to run the Event; it is essential that the budget is sufficient to achieve the objectives.

The amount of money needed to organise a Science Communication Event varies greatly, and depends upon:

- ***Size of staff and the office costs.*** The number of employees including part-time employees, determines a large proportion of the budget. Office costs such as rent for office space, heating, lights, cleaning, communication, copying, postage etc. should be calculated accurately.
- ***Geographical reach of the proposed event*** (national, regional or local)
- ***Cost and complexity of the proposed marketing campaign*** (advertising in newspapers in electronic media, special marketing ideas such as workshops for journalists or taxi drivers, promotional activities such as science clowns in the cities, colourful programmes with large print runs)
- ***The contribution of partners*** (such as universities, perhaps paying for their own Activities; government institutions assisting with the organisation; participating museums using their own space, marketing and personnel)
- ***Free-of-charge or in-kind services or goods*** (such as free advertising space, offices, transport and postage, volunteer helpers)
- ***Funding which is raised for special Activities or venues*** (such as open air science shows or a science play with paid performers, or renting a large exhibition hall or a stadium, inviting Nobel Prize winners or holding expensive dinners with VIPs)
- ***Added value for the Science Communicaton Event*** (such as training and paying students as explainers at every activity, training workshops on demonstration skills for presenters – or organising pre- and post- event conferences for all participants – or awarding special prizes for the best presentations or for visitors).

The main advice compiled from the analysis of the Science Communication Events visited was: Recruit as many influential partners as possible so that you can obtain as much in-kind provision of services and goods as you can, especially for marketing; try to recruit personnel from volunteer projects or similar programmes; ask for free office space from sponsors or government institutions; investigate exemption from as many taxes as possible (including for your sponsors) – and report in detail to your stakeholders on how efficiently and effectively you manage the budget.

For the financing of a successful Science Communication Event the following questions must be answered:

1. What is the total budget needed for the Event?
2. Where will the money come from?
3. Should the income support more than just the next Event?

What is the total budget needed?

The size of the budget varies greatly between the Events visited – from € 4,500 to more than € 3,000,000 – and the figures are not always clear. Sometimes, the institutions involved organise many other Science Communication Events (and therefore have no data on the cost of the Science Communication Event alone), some do not have the exact costs of the Event in their book-keeping, other institutions have personnel and office space for free, and many do not include the value of free-of-charge services or goods in their budgets.

The main items for which the budget of a Science Communication Event will be used, are:

- People: personnel, management board, advisors, helpers etc.
- Activity costs: hire of venues, cleaning, travelling etc.
- Marketing: advertising, brochures, promotion campaigns, posters, CDs, website etc.
- Office costs: rent and heating, IT, telephone, postage etc.
- Budget for participants: assisting with activities, materials, awards etc.
- Evaluation costs: preparation, surveys, report, presentation, contractors etc.
- Miscellaneous costs: royalties, preparatory conferences, taxes, fees, insurance

The largest part of the budget is taken up with personnel and marketing costs – and for special initiatives for achieving specific objectives.

Where does the money come from?

There are of course numerous sources for funding the Science Communication Event or providing free-of-charge services or goods. In most of the cases observed, the funds and assistance come from:

- Government (national, regional or local)
- Government institutions (such as universities) or agencies
- Public or semi-public enterprises such as public transport (e.g. advertising in the metro stations), airlines (free transport of VIP presenters)
- Trans-national agencies such as the European Commission or European scientific institutions (e.g. CERN, ESA)
- Companies as sponsors (money or in-kind goods or services such as SMS services)
- Public or private foundations or trusts, e.g. in the field of culture, education or science and technology
- Associations such as the association of physics teachers or national academy of scientists

Each source of funding requires a different approach. In some countries there are agencies which specialize in raising funds and sponsorship.

There is also a different strategy for each type of organisation putting on a Science Communication Event. If the organisation is a government institution it may be restricted and not allowed to seek sponsorship, whereas a charity is able to do this. Private companies are subject to changing budgets as they are connected more loosely to funding agencies.

A major problem for nearly all of the Science Communication Events observed is the maintenance of a secure budget to last longer than just for the next Event. Therefore, if long-term planning of the marketing budget or for the securing of partners is not in place, there might be a problem with the onward budgeting.

Is there long-range planning of the budget for more than just the current/ next Event?

10.2 Different models of financing and their analysis

The following models were identified or could be seen during the EUSCE/X project, mostly dependant on the ownership of the Science Communication Event organisation (government institutions are almost solely by government, private enterprises or agencies are more often funded from private sources):

- Funding only by government (city, region or national)
- Funding mainly by government (sometimes city and regional/national government together) with a few other sources (the other sources are usually one or two major companies or agencies)
- Funding by an equal mixture of government and other sources
- Funding almost completely by non-government sources ("private" Events)
- Changing structures – some organisations change their funding sources from one pattern to another, sometimes suddenly, sometimes gradually.

Organisations whose funding comes mostly from government tend to enjoy larger budgets with better stability, although when changes in government take place, sudden re-organisation or strategic changes can take place, which can be enough to stop all activities.

Local government, for example of regions or cities, is often proud to support their science communication facilities and their Science Communication Events – often more so than national government.

The support of (local, regional or national) government might act to lever the support of government-related institutions such as schools and universities.

Even government funded organisations are increaingly encouraged to try to source funding outside of government. Some of the government controlled organisations (such as research councils) are not allowed to raise external funding, mostly because they have to be unbiased and free from any pressure from sponsors.

That said, most sponsors do not use any pressure to affect the subjects or presentations, but rather want to be presented as part of the scientific community or part of a communication process with the public.

Special efforts are made to attract companies as sponsors. The following strategies are found to be effective, always considering that free services (e.g. transport, web space) or goods (e.g. computers) are always welcomed, in addition to funds.

- Person-to-person talks: the head of the Science Communication Event organisation (or the head of the board or the minister responsible) knows the head or the marketing head of the company personally; this personal method seems to bring the greatest success in securing funds.
- Categories of sponsorship: several categories are defined, for example from "contributor" to "premium partner" with increasing packages of funds and associated increasing benefits for the sponsor.
- Participation of sponsors: the sponsors take an active part during the Event, for example providing scientific content (not just their products) and personnel or the sponsor's CEO takes part in special events such as "Dinner with the Royals" or press conferences at the opening.
- Special events to attract sponsors: these events could be conferences or dinners (networking events) or workshops for the personnel of the companies, e.g. instruction on how to present their scientific contents, how to lobby governmental institutions, how to reach children or other target groups – or simply how to participate in the Event more effectively.
- Sponsors as partners: If the Science Communication Event organisation allows, highly valued sponsors can become active partners, participating in the advisory board of the organisation, assisting in marketing, involved in the scientific educational programme e.g. for young people, providing their products and also contributing money – or financing special Activities.
- Presentation material: It is sometimes difficult to explain what a Science Communication Event is without the help of pictures, even better with (short) videos, made at the previous SCE. This material should be created professionally, show the complete engagement of the visitors and presenters, the wonderful atmosphere, some photogenic "tricks", the broad range of Activities and also pictures of VIPs such as ministers, CEOs of interested companies, movie or pop stars taking part in the Event.

As mentioned previously it appears to be very valuable to report to all of the stakeholders on the efficient and effective management of the budget, and on the objectives achieved. The main difference in the total amount of budget available for the various Events seems to be driven by the following:

- High or low GNP (Gross National Product); it seems obvious that countries like Lithuania or Poland have smaller budgets for their SCEs than Switzerland, Norway or the United Kingdom. On the other hand, there are differences in the percentage (and amounts) of the government budgets dedicated to R&D.
- Special European event; the occurence of the European Capital of Culture (Genoa in 2004) can be used to increase funds beyond normal budgets for that city.
- Combination of stakeholders; it seems that an association of stakeholders (research institutes, companies, government agencies) can increase the budget, but only if these stakeholders can have some control of the organisation.

Surprisingly, the amount in the budget rarely increases with time or with the quality of performance.

The budgets for most of the Event organisations barely increase with the rate of inflation, regardless of their success in achieving their objectives. Since some governments tend to be more reluctant to spend money than others, efforts to raise sponsorship money seems in most cases the only way to increase the budget – the other way being to look for further interested stakeholders. It is very important to negotiate for an increase n the budget with the arguments of increasing quality, increasing achievements of the aims and increase in inflation.

Following further consideration of the different levels of budgets observed, these factors became evident:

Geographical reach

There is no obvious correlation between the budgets of national, regional or local Science Communication Events. Some of the Events based in one city have the largest budgets. It clearly depends on the marketing plan. It seems that local Events tend to put a lot of marketing effort across the city, trying to reach the whole population, whereas national Events do not attempt to market to the whole nation – they may leave the responsibility of marketing locally to the participants in the regions; hence they do not need a proportionally higher budget.

Ambitiousness of the marketing plan

This is one of the main reasons for the difference in budget size. Efforts to inform large parts of the population in advance by advertising in newspapers, with large posters on billboards, banners across the streets, and on radio and television can be very costly. The budgets for advertising in the "old" EU member states range from € 100,000 to one million Euros. The Science Communication Events in the "new" EU member states try on the whole to obtain free coverage in the media (unfortunately this is seldom in advance, so it cannot attract an audience to the Event) and rarely advertise. Very few organisations include monitoring the effect of the marketing campaign in their evaluation. Nevertheless, it seems that, due to the different marketing plans, in many cases local Events can get better public recognition than a national Event. Some of the Events also benefit from their long tradition – "either a lot of marketing effort once or small marketing efforts for a long time".

The main principle should be that the marketing effort matches the marketing objectives. If there is an objective to reach a high percentage of the total population, the marketing effort must be very high. If only a certain target group is to be informed, for example a group which is easily defined and reached such as students, kindergarten teachers, taxi drivers or doctors, the budget for marketing can be much lower.

A combination of strategies is to be recommended: comprising definition of a small target group, which can be reached easily (and cheaply) , such as students or pupils of certain school types and ages – with a separate strategy for the more general audience such as families with small children or office workers of private companies. The methods for reaching a large percentage of the first, main target group will rely on their own institution's communication systems – which will be cheap and easy to use. The objectives for the main audience must be lower, for example to reach 5%. This objective can be met using appropriate media or partners.

Participants

The budget also depends on the participants involved (universities, schools, government or research institutions, museums, companies, even social institutions etc.) in the Event. In most cases, the presenters from these participants work and present for free and do not charge for using venues (museum or university spaces). Most of these participants also organise their own marketing.

If the Event organisation has to pay for the participants, e.g. for the materials for each Activity from the schools or universities, the budget increases considerably. Usually, some Science Communication Event organisations pay several hundred to one thousand Euros per participant. For several hundred participants, the amount might reach an additional € 100,000 or more.

In this case, the Science Communication Event organisation can impose more control on the content of the presentations using the principle "Money for quality" if it supports the participants with funds.

Sometimes, the participants do not receive any money, but receive considerable amounts of marketing material, ranging from simple posters and programmes to give-aways such as pens with logos and even sweaters, T-shirts and banners. This is recommended, if the budget allows for it, because then a common branding is achieved, with the advantage of better marketing (the public will remember it more easily) and a feeling of a "common cause" among the presenters.
In some cases, the participants who receive no funding forget to use the common branding. However, participants who feel free of central guidance, can sometimes be more creative in their marketing and presentation ideas.

In any case, one recommendation is to set up a "Participants Club ". This "club" can be used to pass information to the participants, to get structured feedback, to say "thank-you" and to have some kind of control, over their planning and organisation.

Most presenters participate in Events for free. However, within the world of science there are famous personalities, well known people, often authors or media stars who have something to contribute to the Event. As such Activities are part of their job, they naturally charge a fee for to attend. An Event may benefit greatly from hiring some of these professional science presenters; media coverage may increase and thus the profile of the Event in the eyes of sponsors and partners.

However, these funds must be found. Several of the Events reported success in co-operation with the British Council (and similar organisations from other countries), who have generously supported a number of British researchers participating in Events in other countries.

Finally, as noted earlier free-of-charge or in-kind services or goods can cut down costs – and many sponsors would rather provide goods or services than cash. The Event organisation can save up to hundreds of thousands of Euros when such goods or services are acquired in large amounts.

Funding of special Activities or venues

Some Events are concentrated in one city and in a single venue such as a large exhibition hall – and this might be costly, if not sponsored, perhaps up to € 10,000. Cleaning and preparation must also be accounted for.

Some Events use groups of tents in public places in the middle of the city. The cost for renting these tents can also reach tens of thousands of Euros – and the

cost of electricity, garbage cans and toilets etc must to be accounted for. Some Science Communication Event organisers use event management companies to organise thes venues.

The use of a public open-air arena could also be costly at € 20,000 or more. Special Activities such as conferences and dinners with VIPs - maybe Nobel Prize laureates can be expensive, depending on the arrangements for the dinner – and the cost of inviting the VIPs, may include their travel and accommodation.

Development strategies

Many Science Communication Event organisations have strategies to enhance the quality of their Events or to reach the right target audience better – with resulting effects on the budget.

Among these ideas are pre-Event workshops to assist in improving the quality of the presentations. Also post-Event conferences can bring the participants together again to evaluate the Activities for improvement the next time. The cost of these Events depends largely on the support given to the participants such as travel costs, information material, special dinners etc. These costs are rarely sponsored.

The cost of special awards for "Best Presenter" or "Best Visitor" have to be included in the budget.

One of the strategies encountered was the training and organisation of "explainers", who were present at each Activity, assisting the visitors to understand the science of the Activity. If training and "explaining" working hours are paid, this can amount to several hundred thousand Euros. Sometimes, these costs can be covered by agencies or institutions dealing with unemployment.

10.3 Best practices and outstanding ideas

Good practice was demonstrated by all of the Science Communication Event organisations where the budget and the objectives of the project matched.

Even the smallest Events such as the one in Lithuania could reach their objectives with the given budget of a few thousand Euros by not being over-ambitious and creating a friendly, inclusive Event. Of course, if the event is successful,the objectives become more ambitious – and the budget has to increase.

Other SCE organisations have much more expansive objectives – and need more money.

Good practice also occurs when the funders feel that their money is spent wisely, efficiently and effectively – and receive a report on the whole project describing this.

It is good practice – and very necessary – to have a good accounting system so that of the costs of organising the Event are known. Some of the organisations observed were not able to give details on the budget, because the costs for the Event were merged with the other activities of the institution. This is unacceptable for a modern business and undermines good planning and the effective use of the budget.

It is also good practice, for the Event organisation to have more than one or two sources of funding. It is also recommended that there is a mixture of financial sources including government and private funding, from "big spenders" to many small helpful friends (perhaps creating a support association to engage

the "friends" of the Event). This mixture can help particularly when budgets are endangered because of changes in government. The remaining funding partners might help to persuade the new government to keep funding a good project.

Good practice for minimizing the budget but increasing effectiveness is to recruit good marketing or advertising partners. In many cases, newspapers and radio stations are willing to cooperate and advertise the Event. Sometimes, the organiser will have to guarantee some exclusivity to a media partner.

Another good practice is to appoint staff to be responsible for certain parts of the budget, especially if there is more than one venue and city for the Event. These people can be trained together in the background to the budget and can help with the efficiency of budget management.

Good practice would be to have long-term contracts with funders (government or private sponsors) as happens in Edinburgh (mostly 3 year contracts). The Event organisation should put considerable effort into negotiating such contracts in order to be able to concentrate more on the quality of the Science Communication Event instead of constantly fundraising.

Some of the outstanding ideas with a significant effect on the budget – listed in no particular order, because the effect depends on the total structure of the Event:

- Forward Planning: Very few Science Communication Event organisations plan their budget in such a way that, say, 20 % of the budget is retained for the following year or for funding new projects in the field of science communication. This good practice is strongly recommended by Freiburg, Germany.
- Overheads: Make sure that in drawing up the budget the true costs of overheads (staff costs on top of salary, office costs etc.) are included.
- Huge posters in every subway station: The Madrid Science Festival achieved this major advertising free of charge from the subway.
- Partner in the Entertainment Business: The Science Days near Freiburg, Germany, recruited the theme park Europa-Park as a partner to host the Event, a park which attracts about 3.7 million visitors each year. This influential partner reduces the marketing costs considerably, has a complementary target audience and assists in professionalizing the event.
- Give the managers from the sponsoring company a role at the opening and at other events (for example: Science Week in Austria).
- Combine the Event with another event or worskhop. This was organises effectively in Ljubljana, Slovenia, where exhibition, Activities and a workshop in international science communication took place at the same time and in the same building, an art gallery.
- Create a "Club of Major Sponsors": Austrian Science Week achieved its budget with more than 90 % of private sponsorship in 2004 mostly from 4 companies. These were featured intensively in television spots advertising Science Week.
- Connect themes of the Event to specific participants (e.g. companies)
- Lottery money for Science Communication Events: in some countries, especially in Switzerland, the organisation received funds from the national lottery with a proposal that "fun money" should assist in communicating "fun science".

- Special conditions for sponsors' employees: some Events admit sponsors' employees for no charge, others open at special times or in special venues for sponsors.
- Entrance fees: if the Activities are worth an entrance fee, the Event organisation should charge. This creates additional work and costs for accounting, taxes, data handling, ticketing and appropriate personnel. But the image of an Event with an entrance fee will not suffer; in fact audiences often value an Event which charges a small entrance fee more. One of the advantages is the ability to count the number of visitors precisely, another one the possibility to give attractive free tickets to invited guests (journalists, sponsors[7] etc.) or reduced price tickets to those (e.g. families), who want to visit more than one Activity.
- Special venues for free: there are many possible venues for an Event organisation, which are free even for special events. Therefore, some Events use the parliament building or town hall for the opening or for conferences, the railway stations for performances or libraries for receptions.
- Use of similar organisations: in some cases, the Event organisation can cooperate with similar organisations such as arts festivals (e.g. Edinburgh for marketing) or tourism agencies. This can reduce the marketing costs considerably while increasing the number of people knowing about the Event.
- Cooperation of SCEs: in the future, European Science Communication Events could cooperate to reduce costs. They could develop common interactive travelling exhibitions, (electronic) games, booklets, shows, educational materials etc. There is no end to the imagination, if one has partners and good mutual motivation. EUSCEA, the European Science Events Association is a very good platform for initiating such cooperations
- Good relationship with the tax authorities: in many cases, non-profit organisations are tax-exempt. But, sometimes only good relationships can persuade the authorities to use their leeway to grant tax-exemptions or alleviation (from VAT, corporate taxes etc.).
- Continuing good relationships with sponsors: some Science Communication Event organisation managers have regular lunches with the managers of the sponsoring companie (Göteborg) to maintain contacts, some raise sponsorship using working breakfast meetings (Vienna), because this is a good time for stressed top managers.

Short Overview list of "Best Practices":

- Match budget with project objectives (it is useful to create a table showing objectives and the dedicated part of the budget)
- Report on budget use professionally
- Ensure good book-keeping and accounting standards
- Aim for a mixture of funding sources in public and private, big and small
- Try to attract advertising partners
- Appointment of reliable staff with responsibility for the budget
- Negotiate long-term contracts with funding sources – and annual increaase due to inflation, quality and size

Short Overview List of "Outstanding Ideas":

- Put a part of the budget aside for other projects or for the future
- Use public transport for the possibility of free advertising
- Look for partners in the entertainment business for cooperation
- Court the sponsors' managers
- Create a "Club of Major Sponsors"
- Try to raise money from the lottery
- Give special entrance rights to sponsors' employees
- Collect entrance fees (but consider the effort and costs involved)
- Look for special venues, which are free (parliament, town hall etc.)
- Make use of partnerships with similar organisations having similar objectives (tourism, festival etc.)

10.4 Summary

For consideration	Alternatives	Impact on Budget	Recommendations
Geographical reach	National, regional, local	As experience shows: very little impact	None
Marketing	Definition of the target group ranging from EVERYBODY to only students or primary school pupils – or making no definition	Great impact ranging from nearly zero to several 100.000 depending on the definition – if there is no target group defined, the money for marketing should be saved	Adopt a layered strategy: define a small target group, where nearly everybody should be contacted – and a strategy for the main audience with a much lower percentage
Partners	Finding partners who fund their own Activities or contribute – versus paying for everything centrally	Can be quite a large impact not only on the budget but also on the responsibility and efforts of the partners	Found a "Partners Club" to exchange information and keep control
Free services & materials	Find sponsors who grant free services and materials	Can be quite a large impact	Create a range of benefits for sponsors, depending on the value of the sponsorship
Special events and venues	Central Activities versus decentralized	Centralized Activities increase the budget somewhat, but increase the control on the money and information flow between the participants	Centralize as much as is sensible according to your objectives of the SCE
Development strategies	Assist centrally in increasing the quality and reach of presentations – or not	Quite a considerable impact on the budget, but necessary	Never try to save money by disregarding the quality of the presentations and the improvement of the event
Evaluation	Perform a full evaluation of the event	Expensive, but indispensable for reporting to stakeholders and improving the event	Make sure that sponsors are aware of the cost of evaluation

11. Marketing

Annika Lotzman Dahl & Jan Riise International Science Festival, Göteborg, Sweden

11.1 General overview

Firstly, it has to be said that a Science Communication Event IS a form of marketing. Probably without exception, all events have "raise awareness of science and technology" as an important objective. So what the organisers want is to make people, especially young people, interested in the world of science. Thus, a Science Communication Event is one of many ways to market science.

This chapter deals with experiences from the Events visited, but also includes some basic guidelines and ideas about how to think about marketing and communication strategies.

Definition of marketing

The term "marketing" is a difficult word, meaning different things to different people. To many people and often enough, "marketing" means brochures, advertising and other sales promotion activities. To others, marketing is discussed in a broader "business school" sense, including aspects such as product design and distribution, pricing strategies, branding and communication plans.

In this way, marketing may encompass almost everything that the Science Communication Event does in order to achieve its objectives. The design of Activities, choice of venues and how an Event may be organised are covered in other chapters of this book.

Target groups

Most Science Communication Events would use words like "general public", "interested public" or just "people" when describing the anticipated audience (see also chapter 3) – but this means "everybody", which is not a target group at all. If you want to shoot "everywhere", you do not have a "target".

For those Events that include specific school programmes, "schools" or "school children" would also be mentioned, thus defining the Event's major target groups. However, a more fine-tuned segmentation of the groups may prove fruitful, as will be shown in the following analysis.

There are also a number of other groups who would have an interest in the Event: stakeholders, sponsors, regional contact people, members of staff and participating presenters, to mention some of them.

Media

Media coverage is often regarded as part of the marketing of an Event. This is often the case and the media also seem to like Science Communication Events, both as events and as sources of interesting news.

However, it is important to keep in mind that the media work on behalf of the readers, listeners and viewers; it is the editors who choose what and how to communicate, not the Event organiser or the individual participating scientist. Nevertheless, media coverage is, despite the somewhat capricious choice of news, an important marketing channel. Media contacts and relations should definitely be part of the marketing plan.

Internet and mail

The internet provides an extraordinary opportunity to distribute information and to communicate with the different target groups. The challenge is to attract visitors to the Event's website, especially visitors from priority target groups, such as young people.

Budget

The amount of money spent on marketing varied greatly between the Science Communication Events studied, as does the proportion of the budget.
It is impossible to compare different Events, not least because of the uncertainty concerning in-kind sponsorship and other arrangements for reducing costs.

The marketing plan

The marketing plan, as a tool for the Event's communication with all its target groups, will be discussed in detail in part 11.2.

11.2 Different models of marketing and communication and their analysis

The Events studied here have very different conditions, budgets and experience in the field of marketing. Some have professionally produced marketing plans, some use professional agencies and some have access to colleagues within the same organisation for consultation and/or production of marketing and information material. Others do most of the work themselves or "in-house".

For the long-term survival and development of an Event it is probably necessary to find some professional advice and at least have some sort of structured and co-ordinated plan related to the different target groups. This chapter aims to provide some assistance in that respect, and some tools are briefly described below.

This is a particular area where Science Communication Events may find many advantages in participating in EUSCEA and other networks. The exchange of best practices may be both inspirational and profitable!

Target groups

Generally speaking, most Events talk about the general public and/or school children as their major target groups. It could be argued that "everyone" can't be a target group, but, as we shall see, there is more than one dimension to this.

But first, let us present a list of other important target groups, useful for the Science Communication Event's marketing and communication plans.

- Stakeholders. This group includes the people who represent founders, sponsors, other funding organisations, board members, advisors and other with an interest in the organisation as such: planning, financing, evaluation, strategies, development, staff, new partners etc. (Internal communication)
- "External VIPs". This is the group consisting of people from government (politicians and staff), authorities, foundations and industry, who for different reasons do not (yet) belong to the group of stakeholders. These are people that would be invited to VIP occasions, such as opening ceremonies, and also be informed about the overall activities of the Event. (External communication)
- Presenters. In a way, the presenters form part of the Event organisation, and as such they are a target group for internal communication, not least concerning the objectives of the event and what is expected from them.

- Staff members and colleagues of staff members. Internal communication regarding the development of the project. In many cases, the SCE is organised by a small group of people within a larger organisation, e.g. a research council, and their colleagues may be regarded as important ambassadorsfor the Event.
- Media, meaning journalists and reporters publishing stories from and about the Science Communication Event and often also about science in general. (Media companies as potential stakeholders or sponsors are covered in the above groups). (External communication)
- The audience, the "general public" or the "school children", may be further divided into sub-groups, or real target groups. The choice of groups to concentrate marketing resources to relates to overall objectives or strategies of the Science Communication Event. (External communication)
  - adults with an academic education
  - adults without an academic education
  - young people, not at schools, different ages
  - students at university level
  - students and pupils at lower levels, different ages
  - teachers
  - women
  - special groups, easily reached through their organisations such as police, fire brigade, red cross helpers, taxi drivers
  - etc.

The general public also includes groups of people that for different reasons will not respond to the attempts to communication; people speaking a different language, small children, people who are away from home or for other reasons incapable of participating.

Be careful, when defining a target group such as "general public": The Eurobarometer (http://europa.eu.int/comm/public_opinion/index_en.htm) estimated that 50 percent of the public simply is not interested in science – and will not be persuaded to become interested.

As the Science Communication Event organiser in most cases works as an intermediary on behalf of one or more other stakeholders (founders, sponsors) such as universities, research councils, cities or regions, there is a need to also communicate "upstream", that is to ensure that the stakeholders and sponsors feel comfortable with the Event, which implies an appropriate level of knowledge about what is going on. How this is actually carried out varies: newsletter, personal meetings and lunches, invitations to specific activities etc. The important thing is not to forget the representatives of this group or to include them in the "target group".

The participating scientists and presenters should also be regarded as a separate target group. They are asked to make preparations and give some sort of presentation, in most cases without being paid anything extra for their efforts (see chapter 9 Presenters). Their needs for information differ from those of potential visitors, and as such they qualify as a separate target group. A generous communication strategy towards this group, including newsletters, phone-calls, invitations to

meetings and other activities and maybe a specific part of the Event's website, can provide many positive spin-offs. Not least important is the good-will that may persuade the presenter to act as an ambassador and persuade his or her colleagues to become presenters themselves. The group includes people working at the participating researchers' organisations such as information officers at universities, faculties etc.

Another important group for the marketing efforts is the people working with the Event. In many cases these people are volunteers, doing this for little or no salary. A well-informed and motivated group of volunteers may do wonders! Finally, the event organising team, of course, needs to be involved and informed.

Finally, thinking in terms of plural target groups may make marketing and communication easier. Acknowledge the fact that different target groups have different needs. Treat sponsors and other important "friends" with great respect, and make sure that they get the information they want at times that are convenient.

They also read different media, look at different advertising pages, are impressed by different pictures and themes, etc. The marketing team of the Event has to match the ways of reaching the target audience with the correct methods. It may be adviseable to construct a table with the different target groups and the possible means to reach this and only this group. Then the team can decide which methods will be most effective with the lowest budget.

Media

The success of Science Communication Events in generating media coverage has a number of explanations, including the local, regional and national media landscapes and the general interest in science journalism. But to some extent the reasons are to be found among the Event staff involved; without their dedicated efforts and hard work (talking to journalists, producing press releases, calling one more time, etc) the outcome will be much less significant.

National associations for science journalists can be helpful for distribution of information. In some cases, these associations have participated, e.g. as moderators for science cafés. It is normally favourable for both sides if journalists play an active role in the Science Communication Event.

Some activities that may stimulate interest among editors and journalists:

- press releases
- press conferences
- media seminars
- personal contact
- telephone calls
- personal invitations to activities

When writing press releases, it is important to keep in mind some of the characteristics that make the information attractive to the media: it should be "news", it should have an influence on many people and it should be easy to relate to – "close to home". Interesting and attractive images are also very important. The BA's template for press information is found in section 11.3.

Internet and e-mail

Science Communication Events use the internet mainly for information about the programme and individual activities. Some Events have their own site and own domain name, while others may publish the information on the organisation's

domain. (see Appendix B Events visited). The choice is: the strengthening of the brand name versus the chance to reach website visitors that otherwise would have been missed. The perfect combination is a domain name reflecting the Event's name, coupled with banner advertising, including links or even redirection to the sites of stakeholders, sponsors etc.

However, relatively few Event organisers use the internet for marketing Activities besides the distribution of general information about programmes, venues, presenters etc. There are a few exceptions: The Edinburgh Science Festival publishes its programme exclusively on the internet prior to the event. During the Festival a printed version is available at the venues, but the previous system of distribution with a major newspaper has been abandoned.

The BA Festival of Science has invited web visitors to take part in competitions and polls on the website. In 2004, the competition was about finding the most popular science fiction character (eventually won by Dr Bunsen Honeydew from the Muppet Show, by the way). This creates a lot of visits to the website where information about the Event is placed.

The internet could also be used for other purposes, e.g participation in mass experiments, where the website includes forms for entering data, as well as other information about the project and its outcome, or for gathering evaluation data. (See also chapter 5 Activities and chapter 12 Evaluation and Monitoring)

Mailing lists are frequently used for the distribution of newsletters and other information about the SCE. This is a cost effective way of reaching large groups of people in specific categories..

Budget

It is important not to forget marketing when the budget is made up. It is no use at all to have the most wonderful Event, if people do not know about it.

The budget for marketing, especially the promotional part, is important. The promotion activities constitute almost the only channel between the Event and the target groups. Without promotion, no one knows about the Event.

Naturally, many Science Communication Events have realised that, from the start, it is important to take advantage of an existing distribution channel, such as the major regional newspaper, radio station or TV network. If the partner agrees to publish ads or distribute the programme for free or a reduced fee, the budget may be used for other marketing purposes.

And, as schools are often a major target group, a similar agreement with the school authorities is desirable – thus making it possible to distribute the publicity free to all schools.

The marketing plan

A complete marketing plan comprises several dimensions of an organisation's activities, including budgets, financial objectives, visions and missions. A marketing plan worksheet may be most useful. It will include a number of headings: target groups, communication objectives, strategies (who, what, where, how and when), communication tools and evaluation.

Target groups are discussed above. It is important to keep the different groups in mind; their needs for information and the sources they use may differ significantly.

When thinking about objectives, it may be wise to think "SMART". Objectives ought to be Specific, Measurable, Achieveable, Realistic and Time-bound. This is further discussed in chapter 12 Evaluation and Monitoring.

Having established the major target groups the next step is to answer the following three questions:

1. What do we want them to know?
2. What do we want them to feel?
3. What do we want them to do?

Obviously, the answers to question number 2 are different for the sponsor and the school child. "This is a context I am happy to be associated with" (due to its nature, creating something good for society) and simply "This is fun".

In the same way, question number 3 generates different answers. The Science Communication Event organiser would want the sponsor to maintain or increase the sponsorship the next year, whereas the most obvious action we would want the member of the general public to do is to visit the event.

This means that a proper marketing plan has to take into consideration all of the target groups and their varying interests and needs for information.

Example 1: The "ordinary visitor", someone representing the "general public" Communication objectives: the potential visitor should know that there is a Science Week coming up, he or she should think that it seems fun and interesting. Finally he or she should want to visit the Science Communication Event.

Example 2: The teacher in school with pupils of 12–14 years old. Communication objectives: the teacher should know that the upcoming Science Communication Event offers a number of Activities for schools and that they complement the curriculum in science. He or she should feel that this is an opportunity to add something to the ordinary classroom lessons. And finally he or she should make a reservation for the class at a specific time.

The Four P's

Traditional business school textbooks in the 1980s brought us the "Four Ps of marketing": product (or service), place, price and promotion. The "Four Ps" can be useful when evaluating the Science Communication Events offer to the People (the fifth P – the target group(s) – around which the four others are concentrated)

Product: Most Science Communication Event organisers care deeply about the product, the individual Activities of the Event. They work hard to ensure the overall quality is high, the level of the subjects in question is appropriate and that they fit into the framework of the Event. This means that they are suitable for the defined target groups, that they fulfil what is promised in the advertisement and that they are designed according to the objectives of marketing (i.e. to reach a particular age group).

However, in some cases, most often national Events, the Event organisation may act as a co-ordinator rather than taking overall responsibility for the quality and contribution to the objectives of the individual activities.Quality is then maintained through support resources, telephone and e-mail contact with organisers, meetings and evaluation strategies.

Place: This is the hallmark of a science communication event – using unusual places for the communication activities. This way, the barriers are lowered and the opportunity for people to participate spontaneously is increased dramatically. The European Science Communication Events show different patterns in this respect. Some have all of their activities outside of research institutions and uni-

versities; others arrange activities in many places, while others concentrate on the campus areas. (See chapter 6 Venues).

Price: Is science communication something that people will and should pay for? This is viewed differently in various countries. In Sweden science communication is supposed to be free, as long as the universities and publicly funded research institutes take part. It is reasonable, it is argued, for tax payers to have an opportunity to be involved in research activities and the outcome of them. In the UK, on the other hand, Edinburgh Science Festival – the role model of many Science Communication Events – has had tickets for its Activities for many years, obviously feeling that few potential visitors are dissuaded from attending by this. The idea is that the Activities are so professionally attractive (similar to movies or the theatre) that people will be willing to pay for them. The BA Festival of Science offers a mix: the Festival's "scientific core", is arranged like a conference, with tickets, registration and conference material, while the "Festival Fringe" offers a wide range of free activities in other locations.

Promotion: Activities carried out in order to raise the awareness, curiosity and interest of the intended audience. The most obvious promotion material when it comes to Science Communication Events are programmes, brochures, advertisements, radio and TV spots, flyers and other material. But also activities like trailing shows in the street, participation at other events, "word-of-mouth" count as promotion. This is a real challenge for the creative and daring Event organiser. Almost anything is possible.

The time dimension

If time and resources are sufficient, it is a good idea to think about a timeline for the marketing of a new Science Communication Event, and to build this into the project plan for the Event.

The first step is to create awareness of the Event. The idea is to give the obvious answer to the question "What do we want them to know": "There is a Science Communication Event going on during a weekend in September." The second step is to gain the interest and the curiosity of the potential visitor; this is where clever headlines, press releases about special guests and Activities during the Event as well as small but awareness raising activities at shopping centres come into the picture. This is also the place for ads with a little bit more information. And finally, the advertiser would want to get to the "buying decision", that is when the reader (listener or viewer) is prepared to decide to participate, to be a "visitor". However, this decision is probably reached quite late, perhaps the same day as the Activity is taking place. Example of messages communicated over a period of time:

- *First step:* Science Communication Event from this date to that date. More information on the website.
- *Second step:* This year's theme is "Love" or "Physics" (or whatever). Activities in shopping malls and schools 1–2 months prior to the event. Graphic design of ads and programme introduced that combines themes and organisation profile.
- *Third step:* The crown princess (or other suitable celebrity) opens the event at this time at that place. See you there. Complete programme available here, there and on the website.

Of course, a campaign like this takes a lot of time and money – resources that may be scarce. But it could be helpful to have such a timeline in mind, no matter what kind of communication budget is available.

Creating a brand strategy

It is always advisable to try to establish a common and consistent image of what the Science Communication Event is. This image includes a graphic profile, colours and a number of other characteristics. The brand or trademark is often thought of as just a logotype and maybe the use of a certain typeface. But in a wider sense it includes everything the public may associate with the Activities and presence of the organisation or, in this case, the Event.

Naturally, the better the Event is perceived by the public, the better the chances are to actually reach and influence the desired target groups. Of course, figures vary for many reasons, but a successful local Event could be recognised by 75–80 percent of the population; naturally the figure would be less for national Events: in the UK a third of the population are aware of the National Science Week (34 percent). French and Danish surveys report comparable figures for their national Events. These are results of careful brand management.

This means that the Event's values and philosophy really matter. Including words like "access", "friendly" or "creative" can help to promote the Event's values and philosophy.

- Partnerships with newspapers or broadcasting corporations are usually favourable. The reach of the mass media cannot be underestimated, but beware of advertising space that is too small to be useful and the costs of design and formatting which means that "free ads" can be rather costly.
- Banners, flags and posters in the city help to strengthen the event's trademark
- As does participation in other events throughout the year
- Creative Activities for marketing purposes raise the awareness of the event
- Consider the choice of place, the location of the Activities as a part of the marketing efforts
- Good contacts with the press (that is the journalists, not their companies as above) can be very fruitful. Respect their work and provide them with the material they want. The BA's template for press information may be very useful
- The Event's web site can be used for all year marketing. Competitions, mass experiments and Q&A pages draw visitors to the site.
- Take good care of the Event's trademark. Using colours and logos in a consistent way helps to increase the recognition of the Event with the public. It is adviseable not to change the logo each year. If necessary, limit the changes to small details.
- Use copywriting for headlines and texts. It is really disappointing if people don't come simply because they did not understand the subject.
- Be bold! Most successful marketing campaigns include some crazy idea…

11.3 Best practices and outstanding ideas

THE BA FESTIVAL OF SCIENCE

UK

URL: www.the-ba.net

Institution: British Association for the Advancement of Science

Contact: Annette Smith

E-mail: annette.smith@the-ba.net

Media – The BA Press Office
The BA Festival of Science and the British National Science Week benefit from the BA's (British Association for the Advancement of Science's) highly professional press office resulting in extensive media coverage. All of the Event's scientific talks are presented to journalists in a similar way, where some of the content is highlighted through a number of headings in the press paper. This is produced by the press office, based on the presenter's response to the following questions:
1. Details of the presentation (1000–2000 word summary)
2. What is the key finding of the work/research?
3. What is new and interesting about this work?
4. What is the relevance to the general public?
5. What is the next step?
6. Others working in this specific field?
7. Details of relevant publications
8. Interesting images

Vetenskaps festivalen

INTERNATIONAL SCIENCE FESTIVAL GÖTEBORG

Göteborg, Sweden

URL: www.goteborg.com/vetenskapsfestivalen

Institution: Göteborg & Co

Contact: Annika Lotzman-Dahl

E-mail: annika.lotzman.dahl@goteborg.com

Audience – other events
The Göteborg International Science Festival participates in other events in the city throughout the year. Such events include the annual book fair and next year's European Athletics Championship. This gives the Festival direct access to potential visitor groups that normally would not participate in the Activities of a Science Communication Event.

Other good examples include the following:

Stakeholders – working lunches
The manager of the Göteborg International Science Festival regularly sees the representatives of the sponsors over a working lunch to keep them informed about the development and ideas of the upcoming and recent events

Stakeholders – "Friends of the Festival"
The Genoa Science festival has created a group called "The Friends of the Festival"

Media – Hands-on TV science
At the Science Days in Rust/Freiburg, Germany, TV journalists are invited to present their own hands-on activities at the Science Days, which normally results in TV reports from the event.

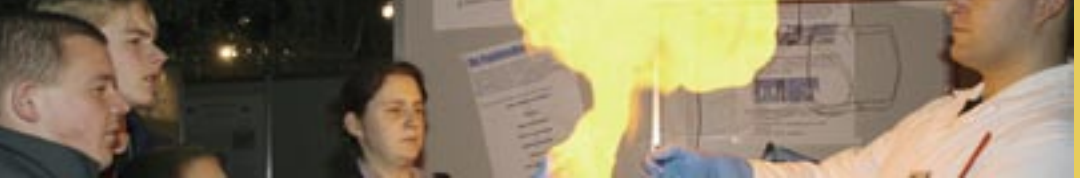
Teachers – Teacher training
The organiser of the Science Days in Germany, the Förderverein S&T, also offers training programmes for teachers. As many teachers are members of the same teacher's network, the efforts are multiplied.

Teachers – Educational material on the website
The Science Days in Germany provides special educational material and information on the website for teachers who will visit the Event with their classes.

Audience TV spots Wissen Sie, dass'
Science Week in Austria 2004 had a co-operation agreement with the Austrian Broadcasting Corporation, to transmit a number of short slogans "Wissen Sie, dass..?" ("Did you know that…") with a reference to Science Week

Audience – Europa-Park's advertising
Science Days in Freiburg, Germany, co-operates with the Europa-Park and benefits from the amusement park's marketing and distribution of information

Audience – unusual marketing channels
The Lower Silesian Festival of Science in Wroclaw, Poland, had marketing help from the church. At the end of Mass the congregation was encouraged to visit the upcoming science festival. This was done because all churches in the area were invited to participate actively in certain Activities.



12. Evaluation and monitoring

Annette Smith National Science Week & The BA Festival of Science, UK

12.1 General overview

The main purpose of evaluation of a Science Communication Event is to establish whether it has achieved its stated aims. Evaluation will comprise not only monitoring the numbers who attended and operating questionnaires to assess the enjoyment of people at the event, but also looking at the impact of the Event, for example on the educational attainment of children attending or on the engagement of adults with science and scientific issues. The field is complex incorporating quantitative and qualitative research, and is therefore expensive and difficult to organise at the same time as organising an Event. It is understandable that some of the Science Communication Events we visited for the EUSCE/X project conducted no evaluation and only limited monitoring of their Events. However, the following chapter aims to offer tips and hints for painless evaluation which include cost effective ways to gather data.

It is very important for the professionalisation of the field that newcomers, as well as existing organisers build efficient methods of measuring the effectiveness of their Events into the early planning. More and more, stakeholders require evidence that their support is used effectively, and the value of informal learning and public engagement is rightly questioned.

The early advice learned from the analysis of the Science Communication Events visited:

1. Plan evaluation as you plan your Event
2. To improve or demonstrate success to stakeholders you have to keep records of the Event
3. Use your student helpers to gather information
4. Offer a prize to visitors to encourage them to return questionnaires
5. Pay for really independent specialised evaluation or better still, get your sponsor to pay
6. Only ask for the information you need
7. Create an action list from your conclusions

Background to evaluation

Before planning the evaluation it is important to establish the main aims of the Science Communication Event. These could include raising awareness of science and science-based issues, or enthusing young people so that they consider a career in science. Whatever the main aims of the Event, the organiser then needs to think about objectives – what needs to be done in order to achieve the aims. Objectives must be set in such a way that they are SMART, i.e.:

Specific
Measurable
Achievable
Relevant and
Time bound

Setting SMART objectives is the beginning of the evaluation process as this allows the organiser to set up the mechanisms by which to measure the objectives. Examples of SMART objectives for a Science Communication Event that aims to raise awareness of science and science-based issues among the public in a particular town might include:

- Increase the number of visitors each year by 5%
- Achieve 70% satisfaction with the Event among visitors
- Provide effective support for Activity organisers

Some of the quantitative information required to evaluate against these objectives will be gained by monitoring. This is the counting of numbers of visitors, numbers of Activities and so on, which can usually be collected from the organiser's spreadsheets and databases. The audience satisfaction data can be gathered by questionnaires, administered via the internet, by telephone, by having forms out at an Activity or by personal interview.

Of these methods, the most accurate and efficient is the personal interview, although this is expensive in terms of time and effort. The least efficient is probably the internet survey, unless a really good system for driving people to the questionnaire is found. One possible strategy to do this is to have the survey on computers at the Event, with the possibility of a prize as a reward. For all methods, the data then has to be collected and collated in order for statistics to be gathered. This data collection and entering is a long clerical task, unless the data is gathered on-line, which must be completed after the Event. If volunteers can be used for this task it will save the organising team some work, but it is very important that the accuracy of data input is checked. A database is set up to collect the information, from which charts and tables can be constructed easily using standard software.

For really detailed in depth, qualitative work on specific issues small groups of specially chosen individuals can be gathered to discuss a particular facet of the Event. These are often called focus groups and comprise representatives of particular categories (for example event organisers, presenters, segments of the audience) who can be gathered together with stimulus materials and an experienced facilitator who will tease out information on the issue under investigation. The information gathered is then very specific and usually extremely useful, but this is a very expensive process.

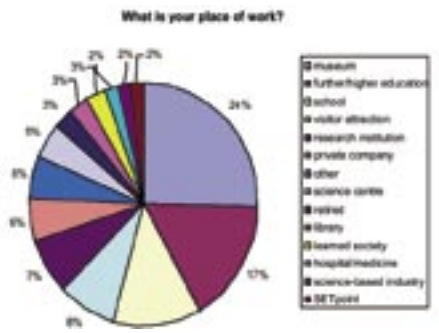
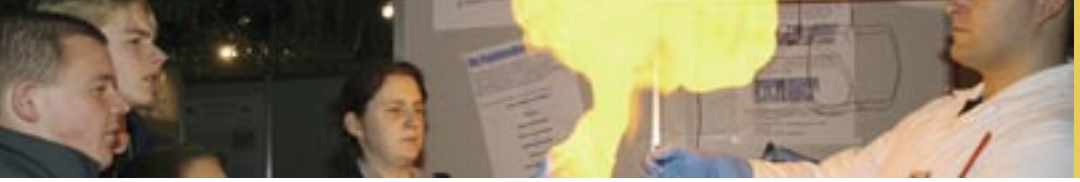


Fig 11.1.
This chart shows where the organisers of activities for the UK National Science Week work.



Some Science Communication Events have used surveys to assess what proportion of the population has heard of their Event. This is an interesting statistic for Event organisers to have to hand, but the question must be phrased very carefully. For example, in the UK, when we ask "Have you heard of National Science Week" about 34% of the population answer "yes", but when the interviewees were asked what time of year National Science Week is held, the percentage of people who know drops dramatically. For local Events, the percentage of people who are aware of the Event often is significantly higher. It is obviously easier to reach a larger proportion with local marketing.

There is also a huge difference between the results for this kind of survey conducted in person and over the telephone. Often this kind of information only becomes useful when it is repeated year after year (a longitudinal survey) so this must be built in to a long term plan.

In addition to these parts of the evaluation strategy it is important to monitor the media coverage of the Science Communication Event. This is always of interest to sponsors, and can be done by the organising team or by professional cuttings services. The professional services are very good at collecting printed media references to the event, but less good at monitoring broadcast references. To do this, the best way is often to ask friends and relations to listen out for references to the event on TV and radio and to note when and where they heard them.

It is very valuable to look at the visit rate to the Event's own website, and also the pattern of visits. This is easy to do with readily available software. Monitoring of websites which mention the Event may prove harder, but one strategy is to put the name of the Event into a search engine to see how many references appear, and from which sites. Also, looking for references on well used news sites (for example BBC online news in the UK) can yield some information.

Finally, a few words about statistical significance. It is of vital importance that the selection of interviewees is properly done. It is unacceptable to claim statistical significance for questionnaires returned by a self-selected group or where no randomness was introduced (for example by instructing student helpers to interview every tenth person through the gate). Of course, every opinion may be important (e.g. e-mails to the organiser or comments made in personal discussions), but the only valid basis for conclusions regarding the overall response is the randomly chosen group of respondents (if "everyone" is impossible). Many Science Communication Event organisers will find evaluation in general difficult to build into their planning, and may find randomising the sample of visitors to be questioned completely impossible. In this case, a qualifying comment should be used whenever the figures are used, reflecting the randomness or otherwise of the sample.

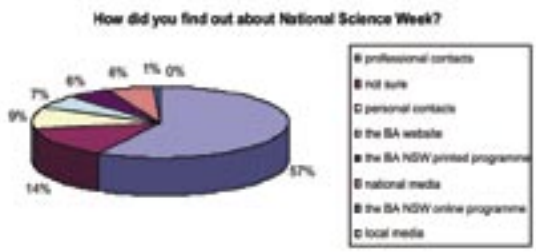


Fig 11.2
This one shows how people found out about the UK National Science Week.

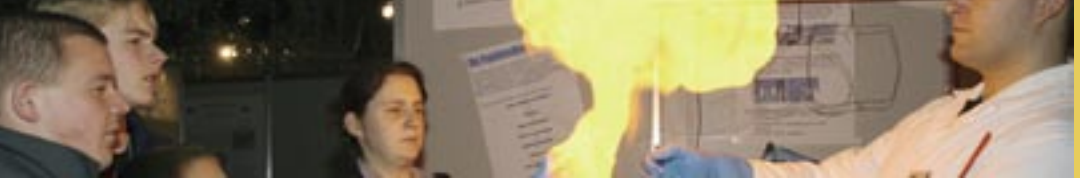
Table 1. Example of the BA press coverage charts: 1) National Press coverage in 2004 for the BA Festival of Science

National press coverage 2004	No of Items	Column Inches/ Duration	News/ Feature	Comment /Editorial	Preview /Review	Listing	Other/ Not Specified
Independent	23	329.75	22	1			
Guardian (incl. Guardian Weekly)	31	687	30	1			
Telegraph	23	499.75	23				
Times	30	587.35	28	1	1		
Financial Times	12	232.75	11	1			
Irish Independent	1	24	1				
Sunday Times	2	56.25	1		1		
Observer	1	2		1			
Daily Express	9	301	9				
Daily Mail	12	110	12				
Daily Mirror	8	50	8				
Daily Sport	2	21	2				
The Morning Star	1	2	1				
Evening Standard	6	85.75	6				
Metro	8	50.5	6	2			
TOTAL	**169**	**3039.1**	**160**	**7**	**2**		

Table 2. Examples of the "action list" drawn from the publicity part of the BA Festival of Science evaluation in 2004.

Publicity

1. Maximise University attendance by having a representative of the University External Relations department on the Steering Group
2. Cross reference the additional information in the back of the programme with the front
3. Think of ways to highlight the "useful information" section in the programme
4. Make sure that the "Festival in the City" programme is thoroughly cross-referenced with the main programme and check all entries with organisers
5. Send the Festival in the City programme to all science communication professional contacts
6. Produce fewer posters in a mixture of sizes
7. Research local interest groups and send targeted publicity
8. Promote individual events in any advertising resulting from a media partnership deal
9. Factor in the cost of design and specialised formatting of the ads received from a media partnership
10. The coding of events in the Festival programme was well received and should be developed



12.2 Different models of evaluation and analysis

The models of evaluation for the Science Communication Events visited varied widely. The smallest and newest Events tended not to evaluate at all, while larger, well established and well resourced Events tended to complete sophisticated evaluation and monitoring providing rich information to sponsors and visitors. Some examples of good practice and interesting ideas were:

- Catalonia Science Week had three dedicated pollsters looking at a representative sample of the Activities. Each pollster visited 15 Activities. There were also surveys of the different audiences - adults, schoolchildren, institutions and the press impact was measured.
- In Edinburgh, very detailed monitoring information is collected – the age, sex and home location of visitors is monitored and the attendee numbers are counted against the time of day and the theme of the Activity
- In Portugal, emphasis is on the number of Activities rather than the number of visitors
- In France, a professional evaluation firm is used and the percentage of the French population who are aware of the Fete de la Science is measured. This also happens in Denmark and in the UK, and is an interesting exercise for national science weeks as well as being a statistic which interests sponsors tremendously.
- In Genoa, the evaluation was extended to include a survey of attitudes to science among young people, locating the science communication event directly into this set of statistics so that this will allow comparison in future years of the effect of the science festival.
- In the Netherlands, non-visitors were surveyed, and this strategy was also used in the UK to discover the reasons for potential visitors not coming to the Science Communication Event. This is an excellent way of discovering the effect of the marketing campaign.
- In Göteborg, the student assistants who are employed as guides and general helpers also conduct interviews with the visitors for evaluation purposes.
- The BA Festival of Science evaluation includes in depth focus group work on very specific aspects of the Festival conducted in order to elicit specific information.
- Science Days in Germany target the evaluation on exhibitors, students, teachers and visitors through interviews with 50% of the teachers and 10% of all other visitors. A large number of responses are thus achieved and some sound statistics result. The process is carried out by trained students and completed by scientists at the university, keeping costs very low.
- For the UK's National Science Week, the individual Activity organisers are surveyed in order to find out about the level of support offered by the central organisation.
- In Warsaw, students who write an internet newspaper during the Festival, collect questionnaires from the visitors – these are not statistically significant, but help to provide some information and suggestions for future development.

- The Göteborg Festival evaluation includes comparisons between different types of venue and location. This has brought new insights about where and how different target groups approach the Event. The percentage of young people seems to be consistently higher at drop-in locations.
- In the UK, a pack of branding materials was trialled. Focus groups and telephone interviews were commissioned to find out how effective this was, and the strategy was altered to take account of the responses.

12.3 Best practices and outstanding ideas

From the experiences outlined above, one of the main recommendations would be, for a selection of the objectives, to gather comparable data year on year (or event on event). This gives a good idea of the way an event is growing and developing, and there is no substitute for thinking in advance of the event and setting this up early. In addition to this, involving sponsors and supporters in the process is very useful. Not only will they indicate exactly what measures will be useful to them – and sponsors have to justify their spending back at their companies and institutions – but they will realise that the process is expensive and time consuming and may well provide some additional funding for it.

12.4 Summary

The main recommendations from this chapter are:

- Set aims and objectives for the Event right at the start
- Plan the evaluation early based on the objectives
- Collect year on year information
- Discuss with sponsors and supporters what needs to be measured
- Use face to face interviews wherever possible
- Incorporate the results of the evaluation into future plans
- Review the evaluation and make recommendations for next time
- Don't over-evaluate – make sure that you need all of the information you gather, on other words, don't ask questions where the answers will not be used

13.
The European Dimension

Peter Rebernik, ScienceWeek @ Austria

13.1 General overview

Science and technology are international and not regional or local fields of human endeavour. Scientific culture and its results embrace the entire world, and there is virtually no research that is carried out in national isolation – science is international by definition.

Science transcends political and geographical boundaries, especially in the age of electronic communications. The enormous projects such as the search for a workable nuclear fusion power generation system, the investigations into the structure and forces between the basic particles of matter and international diseases like BSE and avian influenza demand cooperation between countries, and the European networks for scientific research are strong. Likewise, networks across Europe between science communicators are fruitful and creative as can be seen from this report.

Having stated this, it is also clear that one wants to know about the scientific research and developments and its specifics in its own surrounding – also above the level of one's own country.

Over the recent decades, we have seen an increasing effort to create the European Research Area (ERA) by the European Commission. This is in line with the overall objectives and visions of the European Union, manifested not least in the Lisbon agenda. One of the reasons naturally is the aim to increase European cooperation and partnerships for further scientific achievements – all adding to the competitiveness of our continent, compared to mainly America and East Asia.

Thus, it has become an objective also for European Science Communication Event organisers to include the European dimension of the scientific culture – the ultimate objective naturally being to stimulate and show – above all – the resources and possibilities in Europe.

Most often, the European dimension is cared for by visiting scientists or other Activities from another European country. This exchange of Activities has been supported from a range of partners, not least the British Council (and other similar organisations such as the French Institute and the Goethe Institute), that generously has made numerous visits of British researchers to other countries possible.

Each Science Communication Event organisation will decide, how much local, national, international and European "touch" it will communicate to the public.

Since EUSCEA is a European association and the White Book deals with European Science Communication Events, a certain "European Dimension" seems essential.

There are many reasons to add this European dimension such as:

- Science and the scientific community as it functions today with its institutions (universities, research labs etc), culture, structure and knowledge base, *originated mainly from Europe* (starting maybe with Galileo Galilei and Newton; although Chinese, Indian, and Arabic contributions were

quite notable in the past, but not to the structure we experience in the current science community – and the Japanese and the enormous American influence during the last decades);

- Europe is in *competition* with the other continents like America and Asia – and therefore, the public should know and understand the European contribution – and European scientists should be encouraged more and more; not the least, the Lisbon agenda to strive for a more competitive stand of European science enforces the need to increase the European dimension also of Science Communication Events.
- Science and Technology has an *influence on daily life* of all Europeans. Problems in one country (e.g. BSE, the cow disease, avian influenza) can easily become problems in all European nations after a while and can only be solved in multi-national scientific cooperation. Science Communication Events can help to increase the acceptance for decisions or advice on the European level (e.g. of the European Commission) within this field.
- Science is also a factor of *identification for our society*, in this case with the European society as one of the binding bonds of this continent (like music, common history and art). When Europeans think about their culture, science is – and should be considered - an essential part of it.
- Some organisations emphasise the achievements only of the local scientists. The European Dimension can bring this into a *broader perspective*.
- A European dimension can also assist in binding the different countries of Europe closer together with increasing cooperations, getting to know each other, the others' science and technology history (e.g. nearly every country invented the typewriter or similar inventions during the last century) and current cooperations in science; especially bridging possible gaps between the "old" and "new" and "future" member countries of the EU.

Although the European Union is the main organisation of Europe, the "European Dimension" should not exclude countries on the European continent, which are not EU members.

All European Science Communication Events organisations are encouraged to add such a "European Dimension" to their Event and Activities.

In writing and researching this book, the authors have confirmed the value of cross-European sharing of knowledge and experience. The EUSCEA organisation provides a context for this co-operation and projects such as this White Book, which brings together European experience and expertise producing some unlooked-for collaborations and creative solutions and also many challenges facing science communicators in addition to their stated goals.

Indeed the value of European collaboration is seen markedly as the work of EUSCEA continues. The organisation is invited to take part in collaborations beyond Europe, further into the Eastern European geographical area and into the Middle East, Israel, Korea, China and beyond. The bond with South Korea has been particularly strengthened by special Science Communication Activities shown in Daejeon every year since 2002. EUSCEA, European Science Events

Association, is the association for all SCE organisations, currently with nearly 50 member organisations from 25 countries.

It is also important for the network of Science Communication Event organisers to connect with the other Event organisations across Europe, and with the trans-Europe science and technology collaborations.

A "European Dimension" can be reached by attaching a special "flavour" or part of the project or intentional "colouring" to the Science Communication Event. There are many possibilities to achieve this, among them:

- ***Marketing:*** Adding the flag of the European Union to information material, into the website, into banners, invitations, advertisements, broadcasts etc.; raising EU flags next to the Activities; showing maps of Europe (possibly with the places of special European science achievements or from the guests);
- ***Inviting Special European Guests and Media:*** Special cooperation with media or invitation of journalists from other countries of Europe; special guest speakers (scientists, journalists, politicians etc.) from other European countries (or from the European Commission); electronic connections to other European countries;
- ***Exchange of Activities*** with other European Countries: Activities invited from other European countries or sent to them;
- ***Special European Projects:*** Mass experiments to be done within Europe for the general public in all European countries (like asking to tell the time, when certain flowers start to bloom in spring as done at the National Science Week in the UK); projects needing cooperation between universities, schools etc. between European countries;
- ***Cooperation with European Institutions:*** There are many European, and international, institutions like EUSCEA and others beyond the European Union, such as EUSJA, ECSITE, CERN, ESA, the British Council, OSCE, UNO, Red Cross, scientific associations and cultural institutions, which can be integrated into the national Science Communication Event. (see Appendix C, Networks)

The main advantages of adding a "European Dimension" are:

- Possibilities for the media to inform about new aspects of the Science Communication Event in Europe
- Possibilities for new project ideas within and between the hosting and the guest organisation
- Improvements of existing Activities by looking at the other performances and qualities
- Extended networking by really working together with people from other European countries
- Learning about different cultures and views on science

13.2 Different models and their analysis

The European Dimension seems rather new to most Science Communication Events.

- Very few of them use the flag of the European Union in their marketing (some at their website and posters, but mostly only, if funded by the EU). It is recommended for all Science Communication Events organisations to use the EU flag as much as possible on their marketing material.
- But, an increasing number of organisations invite Activities from other European countries to their own Event – with great success for their own image and for the media. Examples of hosting Science Communication Event organisations are the ones in Göteborg, Sweden, in Freiburg, Germany, in France, in Warsaw and Wroclaw, Poland, in the Netherlands and Austria. The costs for such exchange is often very small, but the effects for the public, the media and the colleagues from both organisations very positive. It is recommended to increase this exchange and to reserve special venues and times for marketing these "European Exchange Activities".
- Some do invite scientists and Nobel prize laureates from other European countries (as the Norwegians invited British scientists for the opening of their Research Days and the "Festival della Scienza" in Genoa, where many renowned scientists from other European countries were invited, hosted by enterprising families and given large audiences). These invitations are very successful for the public and for the media.
  Very few organisations invite journalists from other European countries. It is recommended to use such invitations much more intensively. Since the guests hold lectures mostly in English (or report back home in their language), the knowledge about this/these language(s) is also enhanced.
- Officials of the European Union are rarely invited to the Science Communication Events as speakers, although they are sometimes invited to contribute to preparatory conferences.
  It is highly recommended to invite officials of the EU. The advantage is visible for the media and the public. But, on the other hand, these important officials also get acquainted with the importance and the methods of Science Communication Events and of EUSCEA.
- Mass Experiments with a European reach have only been conducted by the British Association for the Advancement of Science. The experiment was to find the "funniest joke", in order to research the psychology of humour, with participants on the web from many European and international countries.
  It is recommended to use mass experiments in each country only. But, because of language problems, the reach of these experiments will tend to be largely national. This is rather fortunate, because the European public would be overloaded, if all 30 or so Science Communication Events organisations would issue mass experiments on a European level each year. Therefore, it is highly recommended to join forces only for ONE European mass experiment per year (in English language). EUSCEA can help in the coordination.

- Very little cooperation with European institutions is known. An important factor seems to be the British Council, which supports Science Communication Events in several countries, e.g. the start-up of Lithuania's first Science Festival. Also, the BA (British Association for the Advancement of Science) invites European officials to its "Festival of Science" as in Dublin in September 2005.

  It is recommended to use these institutions, either from other countries (e.g. by asking the embassies) or at the European level, to include them into the programme and to encourage them to participate actively.

13.4 Summary

To be considered and decided	Possibilities	Impact on Organisation & Resources	Recommendations
Focus on "European Dimension"	Small – Medium – Large	Above a certain effort, special responsibilities have to be created and appointed	"Medium" is recommended
Marketing	EU logo used; European maps shown	Just a "directive" not to forget using it	Highly recommended to use EU logo and European maps abundantly
Special European Guests	Scientists, Nobel price winners, journalists	Funds for travel & accommodation, looking after the guests	Highly recommended to invite science VIP and journalists from other countries
Exchange of Activities	One or more Activities; from one or more European countries	The more, the more impact on funds and management	This exchange is highly recommended; possibly with various participants each year; emphasis by using special venues and marketing
Officials from EU	From different levels and directorates-general and services of the EU; with different possibilities for participation (speech, lecture, discussion panels etc.)	Funds for travel & accommodation, looking after the guests	Highly recommended to invite these officials of different levels and DGs
Special European Projects	European mass experiment; creation of multi-lateral projects	Rather large impact with new funds and responsibilities	Recommended to participate at the ONE European mass experiment; recommended to design projects between certain groups like schools
Other European institutions	Funding and/or participation of them	Possibly positive impact on funds; possibly some effort in management	Recommended to search for influential and/or interesting European institutions to cooperate or to get as sponsors
New Other Ideas	PLEASE REPORT THEM VIA www.euscea.org		

Appendix A. Introduction to the Project

Peter Rebernik Coordinator

A.1 General overview

The need to bridge the gap between science and the public is widely acknowledged. In a modern society it is the citizen's right to be informed about developments that influence their lives, and there is also a need for a strong infrastructure for education, research and development as a basic requirement for retaining economic strength. To sustain such culturally important institutions, the citizens have to be properly and continuously engaged with scientific developments, scientific possibilities and about the scientific contribution to society.

Most governments regard public communication on science an integral part of their policies and support national and regional activities to stimulate communication between scientists and the public. The high value of more, sustainable and in depth improved Public Awareness and Understanding of Science, Technology and the Humanities (PAUSTH) is commonly known. Various means in diverse institutions and organisations are currently in use to promote PAUSTH in Europe. Among them:

Many public relations programmes at the research and development organisations have emerged over the years, for example. "university goes public", days of open doors at laboratories, "university for children", series of articles in newspapers or broadcasts in radio or TV on scientific subjects, series of lectures, science projects in schools, projects involving museums, science centres and botanical gardens, training of school and university teachers for science communication and several forms of exhibitions in science & technology museum and science centres.

Another form of science communication developed alongside these with the creation of science festivals, science weeks, science days and similar forms of interactive and public-oriented Science Communication Events = SCE.

These SCEs differ compared to the other forms of communication of contents and methods of science and technology in many ways:

- the Events are concentrated around a periodically repeated short time span (days, weeks)
- they aim to attract to the "people on the street"
- they often take place outside of the usual scientific or technological venues
- they comprise activities which are sometimes humorous, sometimes based on drama and other art forms and are interactive and engaging.

Several SCE organisations were created in the last decade in Europe, and previously had no forum at which to exchange ideas about Activities, organisation and measures of quality.

Therefore, the need for an institutional forum for the exchange of information and experience came apparent; to enhance the performance, the quality, the range, the themes, the methods and the European dimension of various SCE organisations and to initiate new organisations in new regions and countries.

These were the main reasons for starting the EUSCE/X project = European Science Communication Events Extension. An application was made to the European Commission, DG: Research, Science & Society, which was accepted in late 2002 and the project started in January 2003.

One of the main outputs of the project as planned was to be a "White Book" on how to initiate new and how to improve existing Science Communication Events – a sharing of "best practice". This "White Book" is the one you are just reading now.

Exchange of experience in this specific area was an exception, and this is the reason that EUSCE/X was launched. The same holds for EUSCEA, the European Science Events Association, which was founded in December 2001 in Vienna, Austria and now has almost 50 member organisations from 25 countries. Many Science Communication Event organisers are the only ones in their country responsible for a similar Event. For a serious discipline of growing importance to the knowledge society this was not acceptable.

Seven EUSCEA members joined forces for this peer review of Science Communication Events, both in their own countries and in other European countries. The main objective of the EUSCE/X project was to observe and discuss as many Science Communication Events as possible within the restraints of time and money. Other EUSCEA members fully supported the project and welcomed the project team to their Events.

The main part of the project which ran between 2003 and 2005 could never have been completed without the kind cooperation of representatives from those involved and visited: 21 organisations for Science Communication Events in 16 countries: Austria, Denmark, France, Germany, Ireland, Italy, Lithuania, Luxemburg, the Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden and the United Kingdom. The organisations for whom the seven members of the project team work were similarly cooperative and supportive.

A.2 Objectives of the project

The main objectives of the project EUSCE/X, which was the basis for this "White Book" were concerned with a structured collection of data and exchange of experiences with the aim of improving Science Communication Events in Europe and creating new ones. Specifically, the project aimes to help organisations to achieve:

(a) more efficient organisation for funding and for marketing
(b) more professional Science Communication Events with respect to their methods of communication and their educational value.
(c) more effective contact with and engagement of the public audience
(d) a greater European dimension, with opportuntites for international exchanges

The EUSCE/X project was planned for a duration of 36 months and contained General, Specific and Coordination Tasks.

The "General Tasks" consisted of preparation, intermediate analysis, specifically targeted conferences for Start-up and reviewing the results, and the finalisation of the project.

The "Specific Tasks", which form the core for this project, were the following:

- EUSCEA - Overall Task: Creation of a sustainable professional network among the SCE organisations in European member and associated states for the exchange of information and experience
- Creation of a specific detailed Database and Website of all SCE organisations for public (dates of events, addresses - email - telephone - websites, specialities) and internal use (comparisons) and as basis for further analysis and evaluation.
- Observing and surveying SCE organisations for a detailed insight and review also from the outside viewpoint of colleagues from other countries for a practical exchange of experiences and applicable data collection.
- Analysing all resulting data to come to conclusions for general and individual improvement recommendations, which are communicated back to the Science Communication Events organisations and observing/coaching the implementation of the accepted proposed steps and communicating the implementation results.
- Based on the results, creation of a package for assisting existing and new SCE organisations possibly in countries currently without SCEs - with personal assistance and with delivery of a general "White Book".

The "Coordination Tasks" concerned the coordination of the project members, the financial and planning control, the reporting and submission of deliverables, the distribution and control of the EC funds.

Appendix B. Overview of Visited SCEs

Peter Rebernik Coordinator

In 2003, nine Science Communication Events were surveyed:

France	"Fête de la Science"	nationwide	03.10.–19.10.2003
Germany	"Science Days"	Europapark, Freiburg	16.10.–18.10.2003
Ireland	"Science Week Ireland"	nationwide	10.11.–17.11.2003
Luxemburg	"Science Festival Luxemburg"	nationwide	08.11.–16.11.2003
Netherlands	"Wetenschap en Techniek Week"	nationwide	15.10.–22.10.2003
Portugal	"Semana da Ciência e da Tecnologia"	nationwide	22.11.–28.11.2003
Spain	"Feria Madrid por la Ciencia"	Region of Madrid	13.02.–16.02.2003
Sweden	"Internationella Vetenskapsfestivalen"	Gothenburg	05.05.–18.05.2003
United Kingdom	"The BA Festival of Science"	Manchester	08.09.–12.09.2003

In 2004, twelve Science Communication Events were surveyed:

Austria	"ScienceWeek @ Austria"	nationwide	07.05.–16.05.2004
Denmark	"Dansk Naturvidenskabsfestival"	nationwide	24.09.–03.10.2004
Germany	„Wissenschaftssommer"	Stuttgart	25.09.–01.10.2004
Italy	"Festival della Scienza"	Genoa	28.10.–08.11.2004
Lithuania	"Mokslo Festivalis"	Vilnius	04.09.–17.09.2004
Norway	"Forskningsdagene"	nationwide	10.09.–04.10.2004
Poland	"Festiwal Nauki Warszawa"	Warszawa	17.09.–26.09.2004
Poland	"Dolno I ski Festiwal Nauki"	Wrocław	17.09.–24.09.2004
Slovenia	"Slovenski Festival Znanosti"	Ljubljana	19.10.–21.10.2004
Spain	"9a Setmana de la Ciència"	Barcelona	05.11.–15.11.2004
United Kingdom	"Edinburgh International Science Festival"	Edinburgh	03.04.–14.04.2004
United Kingdom	"National Science Week"	nationwide	12.03.–21.03.2004

In general, Science Communication Events were visited and observed by a team of two project members. Questionnaires were sent out in advance to the organizers. At the Event, both organizers and other people involved (sponsors, participants, etc) were interviewed. In addition to this the, Activities were visited and described.

The following members of the EUSCE/X Project Team visited the countries (websites):

Austria	Mikkel Bohm, DK	www.scienceweek.at
Denmark	Annika Lotzman-Dahl, S & Jan Riise, S	www.dnf2004.dk
France	Magda Fikus, PL	www.recherche.gouv.fr
Germany, Stuttgart	Joachim Lerch, D	www.wissenschaft-im-dialog.de
Germany, Russt/Freiburg	Annika Lotzman-Dahl, S	www.science-days.de
Ireland	Magda Fikus, PL & Peter Rebernik, A	www.science.ie
Italy, Genoa	Magda Fikus, PL & Peter Rebernik, A	www.festivalscienza.it
Lithuania	Peter Rebernik, A	www.mokslas.lt
Luxemburg	Charlotte Willmer-Klumpp, D	www.science-festival.lu
Netherlands	Peter Rebernik, A & Paula Wallace, UK	www.wetenweek.nl
Norway	Aleksandra Kubicz, PL & Peter Rebernik, A	www.forskningsdagene.no
Poland, Warsaw	Katarina Thorstensson, S & Janneke Voltman, NL	www.icm.edu.pl/festiwal
Poland, Wrocław	Katarina Thorstensson, S & Janneke Voltman, NL	www.festiwal.wroc.pl
Portugal	Mikkel Bohm, DK & Annette Smith, UK	www.setmanaciencia.org
Slovenia	Aleksandra Kubicz, PL & Peter Rebernik, A	www.ustanova-szf.si
Spain, Barcelona	Mikkel Bohm, DK & Annette Lotzman-Dahl, S	www.setmanaciencia.org
Spain, Madrid	Joachim Lerch, D & Annette Smith, UK & Peter Rebernik, A	www.madrimasd.org/madridporlaciencia
Sweden, Göteborg	Mikkel Bohm, DK & Joachim Lerch, D	www.goteborg.com/vetenskapsfestival
United Kingdom	Annette Smith, UK & Paula Wallace, UK	www.sciencefestival.co.uk
United Kingdom	Mikkel Bohm, DK & Jan Riise, S	www.sciencefestival.co.uk
United Kingdom	Magda Fikus, PL & Joachim Lerch, D	www.the-ba.net

Appendix C. Science Communication Networks

Peter Rebernik Coordinator

C.1 General overview

There are many different institutions and associations in Europe, which work at least partially in the field of Science Communication Events and which can assist with projects and sometimes help with funding.

Principal amongst these for organisers of Science Communication Events is EUSCEA, the European Science Events Association.

EUSCEA was founded explicitly for Science Communication Event organisations, and is responsible for the project which has led to this White Book. The other European networks mentioned here have cooperated with EUSCEA or with individual Science Communication Events and could be approached for further networking.

Beyond Europe there are further science communication networks, and there is a proposal to set up a world wide network of Science Communication Events. This proposal will be investigated at the next meeting of the PCST (see p 120).

This list will, of course not be exhaustive. Please contact EUSCEA via the General Secretary (details below) if you have any additions or corrections for the next edition of this publication.

EUSCEA – the European Science Events Association

EUSCEA was founded in 2001 and aims to provide a network of support for the organisers of science festivals, science weeks and other SCEs across Europe. From relatively small beginnings, the network has grown to 46 members from 25 different countries. Each year an Annual Conference is held – in 2005 it was in Barcelona, in 2006 it will be in Reykjavik, Iceland on June 1 and 2.

Contact details
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MEMBERS

Country	Organisation	Name of event	Location of event
Austria	PHAROS International	ScienceWeek @ Austria	Wien
Belgium	F.T.I Foundation	Vlaamse Wetenschapsweek	Mechelen
Belgium	Réseau Scité	Printemps des Sciences	Namur
Cyprus	Cyprus Marine Environment Protection Association, CYMERA		Limassol
Denmark	Dansk Naturvidenskabsformidling	Dansk Naturvidenskabsfestival	København
Finland	Academy of Finland		Helsinki
Finland	Federation of Finnish Learned Societies	Science Forum (Tieteen päivät)	Helsinki
France	Institute de Physique et Chimie des Matériaux de Strasbourg, Groupe d'Etude des Matériaux Métalliques	Fête de la Science	Strasbourg
Germany	British Council Germany		Berlin
Germany	Förderverein Science und Technologie e.V.	Science Days	Köndringen
Germany	Phaeno GmbH		Wolfsburg
Germany	Wissenschaft im Dialog gGmbH		Berlin
Hungary	Hinsenkamp and Co International Communication Services DP		Budapest
Hungary	Society Dissemination of Scientific Knowledge (TIT)		Budapest
Iceland	The Icelandic Research Council (RANNIS)		Reykjavik
Iceland	University of Iceland		Reykjavik
Ireland	Forfás	Science Week Ireland	Dublin
Ireland	Moore communications		Dublin
Ireland	Royal Dublin Society		Dublin
Israel	The Bernard Bloomfield Science Museum Jerusalem, Hebrew University	Science Festival	Jerusalem
Italy	Associazione Festival della Scienza	Festival della Scienza	Genova
Italy	Eurac - Europäische Akademie Bozen - Accademia Europea Bolzano	ExplOra! EURAC Science Festival	Bozen/Bolzano
Italy	Perugia Science Festival		Perugia
Latvia	University of Daugavpils		Daugavpils
Luxemburg	Musée national d'histoire naturelle du Luxembourg	Festival International Des Sciences	Luxembourg
Malta	Malta Council for Science and Technology	Science Popularisation Programme	Kalkara
Netherlands	Nemo – Weten Week		Amsterdam
Norway	Norges Forskringrad	Forskningsdagene - The Norwegian Research Week	Oslo
Poland	Akademia wi tokrzyska im. J.Kochanowskiego	Kielce Science Festival	Kielce
Poland	Festiwal Nauki - Warszawa	Festiwal Nauki - Warszawa	Warszawa
Poland	Nicholas Copernicus University	Festival of Science and Art	Toru
Poland	University of Wroclaw - Uniwersytet Wroclawski	Lower Silesian Science Festival	Wroclaw
Poland	Progress & Business Foundation		Kraków
Portugal	ANCCT	Ciencia Viva	Lisboa
Slovakia	Centre for Advancement, Science and Technologie, SARC		Bratislava
Slovenia	The Slovenian Science Foundation	Slovenian Science Festival	Ljubljana
Spain	Fundació Catalana per a la Recerca i la Innovació (FCRI)		Barcelona
Spain	Research Directorate General, Ministry of Education, Regional Government of Madrid	Madrid Science Festival	Madrid

Sweden	Göteborg & Co, International Science Festival Göteborg	International Science Festival Göteborg	Göteborg
Sweden	Swedish Research Council		Stockholm
Switzerland	Stiftung Science et Cité	Science et Cité	Bern
Switzerland	Swiss Federal Institute of Technology, ETH	Festival des Wissens	Zurich
United Kingdom	British Association for the Advancement of Science	National Science Week	London
United Kingdom	University of Birmingham, Electronic and Electrical Engineering		Birmingham
United Kingdom	Orkney Science Festival	Orkney International Science Festival	Kirkwall, Orkney

For current contact details for all EUSCEA members and details of the dates of the next Events they are holding with links to individual websites, please see the EUSCEA website www.euscea.org.

C.2 Other networks

EUSJA – the European Union of Science Journalists Associations

Members of EUSJA are the national associations of science writers throughout Europe EUSJA, the European Union of Science Journalists' Associations, helps science writers throughout Europe to keep in touch with one another. EUSJA does not have individual members. To become a part of the EUSJA 'family' join your local science writers' association.

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ECSITE - The European Collaborative for Science, Industry and Technology Exhibitions

ECSITE is a not-for-profit organisation representing science and technology centres and museums throughout Europe. http://www.ecsite.net/

Contact details
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European Schoolnet

The European Schoolnet is an international partnership of more than 26 European Ministries of Education developing learning for schools, teachers and pupils across Europe.

Contact details
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Rue de Trèves, 61
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Fax: +32 2/790 75 85
E-mail: info@eun.org
Website: www.eun.org
Corporate portal: www.europeanschoolnet.org
Websites: http://www.eun.org, http://www.europeanschoolnet.org

ENSCOT – The European Network of Science Communication Teachers

ENSCOT is a project that ran from March 2000 – July 2003. It was funded by the European Commission under the Framework 5 "Raising Public Awareness of Science and Technology Programme".

The project brought together leading institutions and individuals involved in science communication teaching from across Europe, to exchange ideas on good practice in teaching, develop a European perspective for science communication courses and to act as a nucleus for other science communication teachers throughout the European Union.

The project has now been completed, but there is hope to launch an expanded network. Details of the resources produced by ENSCOT can be found on the website.

Director: Professor Steven Miller
Coordinator: Melanie Smallman
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E-mail: info@enscot.eu.com
Website: www.enscot.com

ESCIN - The European Science Communication and Information Network

ESCIN aims to improve the appreciation and understanding of basic and applied scientific research among Europe's citizens and opinion-formers. Set up in 1993, ESCIN brings together the heads of communication from 21 of Europe's major research councils, institutes and associations in nine countries.
Website: www.esf.org/escin/default.htm

Euroscience
ESOF Euroscience Open Forum

Euroscience is a grass-roots organisation open to research proffesionals, science adminstrators, policy-makers, teachers, PhD students, post-docs, engineers, industrialists, and in general to any citizen interested in science and technology and its links with society. It represents European scientists of all disciplines (includning social sciences and the humanities), in the public sector, universities, research institutes as well as business and industry.

EUROSCIENCE has initiated the EUROSCIENCE OPEN FORUM meetings which are meant to be a European meeting place for scientists, science teachers, media, politicians, industry and the public at large on issues of science and technology, society and policy.

The first successful ESOF meeting took place in Stockholm in August 2004 (www.esof2004.org). The second will be held in Munich in July 2006 (www.esof2006.org).

The head office of Euroscience is in Strasbourg
8 rue des Ecrivains, F-67000 Strasbourg
Tel: +33 (0)3 88 24 11 50
Fax: +33 (0)3 88 24 75 56
E-mail: office@euroscience.ws

PCST Network

The International Network on Public Communication of Science and Technology (PCST) is a network of individuals from around the world who are active in producing and studying PCST.

The PCST Network includes:

- Science journalists
- Science museum and science center staff
- Science theatre directors
- Academic researchers who study aspects of PCST
- Scientists who deal with the public
- Public information officers for scientific institutions
- Many others interested in these issues

The PCST Network sponsors international conferences, electronic discussions, and other activities to foster dialogue among the different groups of people interested in PCST, leading to cross-fertilization across professional, cultural, international, and disciplinary boundaries. The PCST Network seeks to promote new ideas, methods, intellectual and practical questions, and perspectives.
Website: www.pcstnetwork.org

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