Platform of Local Authorities and Communicators Engaged in Science

Modules used: A1, B2, C1

Science Event

2012

This is a standardised version of the original case analysis number 3. Specific names and locations have been substituted from the original document number 3 with generic references in order to preserve the anonymity of every participant.

In case you would like to read the original document, please contact occ@upf.edu.

Contents

Abstract

A science event, organised across different towns, is selected for our case study. Our research questions refer to the reasons why lay people and the main actors participated in the event, and the personal and social impact of the event on these visitors and actors.

The information was collected in two ways:

A) Document analysis (Module B2)

B) Semi-structured interviews with visitors and relevant actors (Module A1, Module C1), a total of 28 interviews.

The main results are:

- For visitors, the main reason for participating was the possibility and desire to learn new things, whereas the organisers refer to the need to create a better image of science and scientists.

- For visitors, the event had both an emotional and cognitive impact –they not only learned new things but experienced satisfaction and enjoyment.

- All individual actors involved in the organisation of the event acknowledged that it helped them improve their communication skills when reporting science.

- The event also provided other specific effects for each of the representatives from the various institutions.

- The social impact for institutions involved with the organisation of the event included:

    - Enhancing the institution's visibility and public image

    - Raising its competitiveness

    - Networking

Two groups of recommendations are formulated. The first group refers to the conduct of future events and the second to the more general issue of popularising science and the "science-lay community" relationship.

Introduction

Science communication – an emerging field

In this country, science communication studies are still in the very early stages. Throughout history various practices and initiatives were undertaken to popularise science, but we still lack both systematic and well-focused policies in this field as well as professional debates on the specific nature of science communication.

Empirical studies carried out over the past decades clearly show that citizens do not have an adequate idea about scientists and the essence of scientific endeavour. Based on the results we obtained in previous studies on the public understanding of science, social representations of the scientist and science communication (all of which were of a comparative perspective design), we have come to the following conclusions:

- People in general and, our citizens in particular, have a positive but idealised image of scientists (reference 5)
- Compared to other nations, our citizens have a very vague idea about what scientists actually do (reference 1)
- Countries in Europe do not encourage the presentation of a varied image of science on their TV channels (reference 4).

Against the background of these results, the need to continue with this type of studies looms large. This is the main way through which we can trace the tendencies in the public perception of science, as well as assess the impact of the various policies and initiatives in this respect. That is why our participation in the PLACES project is extremely useful, both from a professional and from a practical and policy point of view.

Research questions

Our main research questions are:

- Why do lay people and principal actors visit or participate in the event?
- What is the personal and social impact of this event, as a specific science event, on the public (citizens)?
- What is the personal and social impact of this event, as a specific science event, on the actors involved in the event (individual scientists,

scientific institutions or media, third-sector and business representatives)?

The main research questions also include the following specific research questions which refer to concrete areas of impact of this science event on the public and the actors involved in the event:

- What is the impact on the competitiveness, public image and future institutional development of the scientific institutions involved in this event, as a specific science event?
- What is the impact on the public image and future institutional development of participating NGOs and businesses of this event, as a specific science event?
- What is the impact on the engagement of the media with scientific topics and science communication of this event, as a specific science event?
- Does this science event enhance networking and collaboration between different actors interested in science communication?
- Does this science event influence scientists' career plans and development?
- Does the involvement of scientists in this science event influence their engagement with science communication?
- What are the learning effects of this science event on individual scientists in terms of acquisition of knowledge, understanding the science audience and skills development?
- Does this science event influence people's attitudes towards science and scientists and their interest and trust in them?
- What are the learning effects of this science event for citizens in terms of acquisition of knowledge, understanding of science and skills development?
- What is the emotional impact of this science event on citizens and individual actors?

The rationale for the selection of the case

This science event was selected as a case study for the following reasons:

- It could be defined as a true scientific event in so far as it:

- Consisted of a series of diverse activities –several competitions, press conferences, an innovations fair, Media coverage–.
- Aimed at raising public awareness of science, promoting dialogue between science and society and encouraging young people to engage with science (reference 2, p. 16-17).

- This science event has been taking place in this country for 8 years now. It is part of a European initiative supported by the European Commission.

The aim of the event is to focus public attention on researchers and science in general and to reveal their role in our everyday life, economic development, social welfare and the further integration into our common European home. Another objective of the event is to encourage young Europeans to pursue a scientific career, converting Europe into a leader in scientific research.

In this country, the science event for the 2012 project was undertaken by a consortium of participants: an Innovation Centre at an Academy of Science (coordinator), a technical university, a Young Talent Club, three renowned universities from the three cities (City 1, City 2 and City 3), with the partnership of the country's Scientific Association, Physicists Association, a scientific journal, an art gallery and other organisations.

Methods

In this study the level of analysis was a scientific event. We investigated the impact of this science event on two main dimensions –the general public and the main actors.

For the general public, we tried to reveal both the immediate impact of the event on first-time visitors and the long-term effect on visitors who had attended it in previous years.

With the research questions outlined in the Introduction, our aim was to reveal the impact of the event on visitors' and participants' motivation, on career development, on learning enhancement, on the public image of participants in the event (scientists, scientific institutions, NGOs, businesses), on the development of communication skills and on networking among actors.

To achieve these objectives, two data gathering methods were used:

- Document analysis (following the instructions of Module B2) –we analysed the website of this science event, the advertising material, programme of the event, logos of the event, leaflets, a poetry book written by local scientists and published for the event, a book of aphorisms about scientists also published for the event, impact assessment of the previous event in 2011 based on quantitative analysis (mainly percentage distribution) carried out by the organisers (See Annex 2). We decided to use a document analysis method in order to identify the channels through which the information about the event reached the public and to assess the effectiveness of each of these channels. It was also important for us to distinguish the main messages that the organisers of the event wished to convey to the public regarding science and scientists. We also wanted to see whether the organisers themselves monitored their activities in order to trace their shortcomings and achievements.

- Semi-structured interviews with visitors and relevant actors. We decided to use this as a data collection instrument as this science event is an event where everything happens on site, making it difficult to follow-up respondents at a later stage. Also, semi-structured interviews allow respondents to share their opinion about issues relating to the event which we might have neglected to mention.

That is why we used two modules from the toolkit: Module A1 semi-structured interview for visitors (including a module for repeat visitors) and Module C1 semi-structured interview for the relevant actors. Thus seven

interviews designed to reveal the impact of the event on visitors and relevant actors were conducted with citizens. Some of the questions in the semi-structured interviews were similar for all respondents which allowed comparisons, and some questions were specific for a particular type of actor. (See Annex 1)

Sample

The sample comprised n ≥ 6 people for each type of actors. Thus, 28 interviews were carried out (12 with visitors: 6 first-time and 6 more than once); 6 with scientists and 10 with representatives of various institutions involved in the organisation of the event). Each interview lasted between 30 minutes and an hour.

Apart from the general public, the relevant actors approached were: individual scientists from different scientific institutions; representatives from the science institutions involved in organising the event; journalists (editors of popular science journals); representatives from supporting businesses or NGOs.

The interviewers were 4 experienced sociologists from the network of an Institute for the study of Societies and Knowledge at an Academy of Sciences. The interviewers were gathered for a short briefing at the institute. They were told that their task was to encourage the interviewee to honestly share his/her impressions, experiences, attitudes and beliefs. At the same time, it was emphasised that the interviewer needed to keep the conversation within the framework of the issues being studied, avoiding discussions on irrelevant themes. The interviewers were also told that they should try not to use terms like “impact”, “effect”, etc. but to use everyday expressions, so that the conversation did not sound like a formal interrogation. Each interviewer was given a good-quality digital recorder (the audio records are stored at the institute). The interviewees were asked to provide a written copy of the audio interview in due course. They were also asked to write a brief informative text about their own impression of the event. A short introduction was designed during the briefing for each type of interview. The interviewer was supposed to start the conversation with these opening words. With slight variations, the introduction was the following:

“I would like to ask you to answer a few questions relating to your participation in the science event. In this way you will help with the conduct of the PLACES project, which is part of the European Commission’s “Science and Society” programme. The main objective of the project is to create an opportunity for institutions and individuals involved in the popularisation of science as knowledge and as a profession to exchange their experience and structure their activities at a regional and national level. Your answers will be summarised together with the answers of other participants with

no reference to the individual interviewees. The results of the study will be available to the general public at the end of 2013."

Three towns were visited by the interviewers during this science event. The interviewers went to, at least, three sites of the event within each of the towns.

Results

Organisation of the event

Applying a document analysis method, we posed the following three questions:

What type of media do organisers use to inform the public about the upcoming event and to attract people to it?

To attract the potential audience of the coming event, the organisers of this science event used various channels and forms of information including the event's website and logos and various press conferences. The event's website was created early enough and comprised various interesting sections. There was sufficient information about the science events which had taken place in previous years. The announced competitions were attractive, as well the "gallery' which showed pictures and clips from previous events. However, some of the interesting sections were empty as late as two weeks before the event. Our assessment is that the decisions of the organisers to give two press conferences one ahead of the event –on 18 July– and one immediately before the event –on 26 September– were adequate.

The following two initiatives can be viewed as an important way to attract public:

- Organising three competitions: "Young and Energetic Scientists" (YES), "Zoom in Science" and "Be Bio"

- Publishing two books –a poetry book written by local scientists and a book of aphorisms about scientists

It should be noted, however, that there was no information about the event in the most popular media – highest circulation newspapers or most popular TV channels. We would consider this to be the best way to reach a much more diverse audience. Furthermore, organisers should not rely only on 'one shot' information about the event –the information about the event with its logo needs to be published on the front pages of the newspapers with highest circulation and in the prime time of the popular TV channels.

What are the main messages regarding science and researchers that the information material used convey?

The advertising and information materials conveyed two main messages:

- Science is not a dull and abstract activity. It is a rather interesting and useful pursuit which can be enjoyable and can bring satisfaction not only to the researchers but to lay people too.

- Researchers are not “aliens” –they are normal people who deal with everyday life, who dream and laugh. These messages are well chosen and perfectly applied to the public in this country because they try to “break up” the idealised positive representations of the scientist, and of Science as an incomprehensible abstract study which can be practiced only by a few (reference 5).

Do the organisers show self-reflexion on their experience and do they rely on the feedback from the public?

The organisers are definitely not indifferent to the feedback from the public. For a couple of years now, they have carried out surveys during the event in order to see what was successful and what was not. As part of the science event in 2010 and in 2011, a Young Scientists Club conducted two surveys. In each city where the event took place, about 10% of visitors were interviewed. According to the data in 2010, the event was attended by more than 5,000 people. The data showed that this science event already had fans and regular visitors. In all cities, the majority of the respondents (around 44% of every town) were not first-time visitors. Definite answers in all towns that visitors would certainly return next year showed how successful the 2010 event was. In 2011, the majority of visitors in every town were students and researchers and most of the people came to the event for the first time. One city was an exception, where 52% of attendees had been to the event in previous years. A positive attitude towards this event was also evident by respondents’ willingness to return the next year: in all towns visitors answered that they would certainly return next year. In the Chemistry Faculty, this figure was 91% of those interviewed, in a Science Academy 74%, a technical university 66%, another university 31%, one city 46% and another city 79%. This is a clear sign of the success of the event in 2011.

The main problem according to both surveys relates to advertising. Poor advertising of the event is illustrated by the fact that most visitors in 2011 found out about it “from friends, colleges” (47% from a Science Academy, 39% from a university and 28% in a technical university). At the same time, only 5%-7% of the people of these same locations heard about it from Media advertising. Obviously, this lack of promotion constitutes a weak point in the organisation of the event, and it seems to have deteriorated from previous years. Compared to 2010, the percentage of people from the three cities who heard about it through media advertising was insignificant. In 2011, a new group of visitors emerged, those who learned about this science event through Facebook.

Unfortunately, our analysis of the 2012 campaign does not differ greatly from the conclusions drawn by the Young Scientists Club in previous years. Clearly, radical changes are needed in terms of the information channels used by organisers as well as how and how frequent the information is emitted.

Personal and social impact of this science event

The interviews were analysed in the following way: The transcribed interviews were randomly distributed among 4 independent experts (judges) –two of the judges were sociologists, one was a scientist-physicist, and one a journalist. Each one of them read all transcribed interviews. They were asked to list:

- The most-frequently mentioned motives for participating in the event
- How visitors and participants in the event assessed its benefits and what effect the event had on them or on the their organisations

Below we present the categories/results listed by at least two judges. The analysis showed that both the motives for participating in the event and its effects fall into two main groups –motives and effects of the visitors and motives and effects of the participants. For each of the categories, we give quotations from the interviews.

Motivation (reasons) for participation

Although there are common motives among participants, organisers and visitors, we can clearly distinguish the leading reasons of the two groups – visitors vs. organisers.

<u>Visitors</u>

For the visitors, the main reasons for participating in the event are curiosity and the possibility and desire to learn new things:

This is my first year, I was curious and I decided to see what was going on (City 1)

For the university, because we love science (City 1)

Because I enjoy visiting such cultural initiatives, where one can learn something new to enrich one's knowledge (City 2)

Our Maths teacher. She suggested going, but we had already chosen… Mutual interest (City 3)

Actors involved in the organisation of the event

The main reasons for the organisers are related to the need to crease a better image of science and scientists among the lay community and to raise the prestige of science and scientists:

A desire to present science in a more attractive way in order to make young people commit to the pursuit of knowledge (Scientist)

To show the 'human face of the scientist'… 'because if scientists are viewed only from a purely professional point of view, work only with their students, carry out experiments, they remain anonymous and this leads to a misunderstanding in society, people start to ask themselves whether what scientists do is something really important… and ultimately, aren't scientists strange, idiosyncratic people?' (Scientist)

I back any initiative which would popularise mathematics as a source of wit, logic and beauty (Scientist)

(Nowadays) there is no "science–society" platform. Citizens and young people have almost no information about what scientists do. The public image of the scientist is outdated. We want to break out, to change the stereotype of the scientist. Personally, I also wanted to give a chance to talented young scientists, to show what they can do at this science event (Representative from a scientific institution)

I was proud to be invited to participate from among 1,200 staff working at the university. This is recognition. I work at a scientific institution, I have a position in the community. There were other Deans and Rectors at the event. To have given a presentation and to be part of the organisation of the event was very important, you can make the people you work with visible...' (Representative from a scientific institution)

Science and the scientists need to be promoted, they need PR. The stereotypes about scientists need to be changed, we need to show their 'human' face (Media representative)

Prejudices and over-expectations towards science can be changed only if science does not remain isolated in laboratories, institutes and departments (Media representative)

I like the idea of popularising science in society. I believe that most people do not understand the meaning of science. No doubt this is largely due to social and economic problems but I am sure that the development of society which is aware of the meaning of scientific and technological progress can be also supported by the organisation of events like this science event (Media representative)

Social and personal impact

Impact on visitors

We start by presenting the immediate impact this science event had on the people who came to the event for the first time, as well as the long-term impact it had on the people who had been to this event in previous years.

The analysis shows that for the people who visited this science event for the first time, the event had both an emotional and cognitive impact –visitors not only learned new things and better comprehended the meaning of scientific research, they also felt more confident in using science in their everyday lives and experienced satisfaction and enjoyment:

Science is not only in the books. When one hears about it from the 'insiders', you comprehend the material much better and I think this is very useful. What I learned this evening I will use in the future. (City 1)

Yes I do (feel more confident) in the sense that one sees what is being done at universities and research institutes. With the rush of everyday life, people spare almost no time to learn something beyond their normal direct interests.

Definitely it has (personal relevance) because all that is shown here to a great extent is related to the everyday life of people, it is the result of human activity. In these evening, one can get a lot of information on different fields of knowledge (City 2)

I enjoyed the dinosaurs exhibition a lot, which was placed in the building of the regional library… one can learn a lot (City 2)

I am satisfied that more and more young people will start coming to such events. Maybe events such as the Museums at Night, this event and others should be held at the same time, might be more interesting (City 2)

Most of all I enjoyed the answers to the questions the three teams were asked… they were very interesting. And also the presentation of the third team on physical health – the film was fascinating (City 1)

Such events where things are presented professionally, with high quality, not as they are in the textbooks, help to break the stereotype, this is so nice, it should happen more often (City 1)

People clearly see the 'two faces' of science –on the one hand, deeply changing the world and enhancing welfare and on the other, harming nature:

This is not a question which can be answered with a single word –just saying 'great'. The reason is that everything that surrounds us now, the achievements, facilities; everything is a product, a direct consequence of scientific endeavour –of the work of research teams (City 2)

Man tries to play God, to interfere in things he/she does not understand and this might cause great problems and cataclysms. Industrial development leads to the destruction of the ozone layer… there should be limits which must not be passed (City 2)

The long-term impact of the event on people who had visited it before is that they become "addicted to science" and start to follow scientific news and achievements regularly. They are also more likely to see the more general cultural impact of such type of events which pertain to the community and the town where they are organised.

Yes, I have applied and followed (science ideas and news). I teach biology and I have used things I saw at this science event. A couple of years ago there was a laboratory on the street –I attended this with my students…this year I liked the debate and also intend to apply it with my students.

I follow science news much more frequently. I am interested, and also because I work with young people.

Of course my visit to the event made me think more about science and to seek our things related to it (City 1)

It is important for the city –people get together, communicate, the positive attitude they showed, the team work (City 1)

Social impact on institutions involved in the organisation of the event

The social impact of the event for institutions participating in its organisation takes three main directions:

- Enhancing the institution's visibility and public image
- Raising its competitiveness
- Networking

Increased visibility and public image

All institutions which took part in the preparation of the event share the opinion that for them this event was a way to advertise their organisation among a wider audience.

Not only greater visibility for the university, which has its place in the town, but most importantly for those working at it, the scientists, who revealed a different side of themselves (Representative from a university)

At an institutional level (the benefit) is mainly positive PR. Personally –I always learn new things, enjoy the skills, knowledge and talent of young citizens… meet new people (Representative from a scientific organisation)

We are a small company and participation in such a large scale initiative is positive advertising for us. (Representative from a business organisation)

My journal became more visible in society. The number of papers related to the issue of science and society increased (Media representative)

Our media became part of novel ideas and practices in the realm of science and technology (Media representative, radio)

Raising the competitiveness of the institution

For the organisers, the event provides greater opportunities for their institution to promote its mission and activities by competing with other similar organisations.

Attracting new researchers –Maybe; recruiting students– Yes, definitely; Economic advantages –Yes, we find new business partners and donors
(Representative from a university)

Young people, school children see where they can continue their education, and what is more, they find answers to the most difficult question –'why' should I continue studying. Their parents see for themselves that they can entrust their children in good hands, and they will graduate as competitive engineers. The evidence is that next year some visitors become students at the university (Representative from a university)

First and foremost recruitment of students (Representative from a university)

For our association as an NGO, participation in this science event is extremely important because it is related to the popularisation of what scientists actually do
(Representative from the third sector)

Networking

Participation in the event is definitely a way to establish new contacts among institutions and to enhance previous collaborations.

(Not that much research) rather ideas for new contacts and relations with business organisations and social institutions (Representative from a university)

1. Joining a pan-European event; 2. Partnership with the best universities in the country; 3. Presenting scientists not in their traditional surroundings but in an unconventional ambiance; 4. Pursuing a long-term mission of the university; 5. Enjoyment for the people working at the university; 6. Entertainment for the people of the town of the city 1 (Representative from a university)

We started collaborating with new partners in projects related to science communication and activity assessments (Representative from the third sector)

Impact on individual actors involved in the organisation of the event

The individual actors involved in the organisation of the event include: scientists and representatives from different institutions –universities, scientific organisations, media and the third sector. The analysis shows that there is one sphere in which the event influences all individual actors. All individual actors acknowledge that participation in the event helped them to acquire knowledge about different science audiences and to improve their communication skills for reporting science. However, the results also showed that the event had a specific effect for representatives from the different institutions. For example, for representatives from non-academic institutions, participation in this science event provided an opportunity to enhance their career and job prospects and to establish new contacts. As for the scientists, they experienced the event as a "mirror" in which they can "look at themselves" and "see and assess" their work through the prism of lay people, which might even lead to a change in their self-perception.

Acquiring knowledge about different science audiences and improving communication skills for reporting science

All individual actors in the event underline that it helped them get acquainted with the different science audiences and to share the opinion that popularisation of science is a challenging activity which requires special skills. This is the experience of scientists in particular:

I developed my communication and organisation skills. I learned to write scenarios, to be a moderator at an event for entertainment. I received the recognition of my colleagues (Media representative)

Enhanced my skills to bring science closer to people (Media representative)

I was impressed with the event. Now I have better idea about the attitude of society towards science and higher education, and a better view of the problems in these spheres. On the other hand, I myself had the chance to communicate with intelligent people, young and old, scientists who have devoted their lives to the welfare of society. I think that everybody at the university appreciated the event, which indicates that it is heading in the right direction (Representative from a university)

It is always a pleasure to see young people committed to science. You learn from them and from senior scientists. Thus you acquire experience
(Representative from a university)

A positive sign for the future of the mission to bring science closer to the public is the fact that scientists themselves can see the advantages of participating in such events. They learn new things about the public; they learn things about themselves, get unconventional feedback for their work, develop communication skills (Scientist)

From the questions visitors asked regarding my work (active aging), I learned that they are not interested in the aspects of my research that I consider most important… now I know that young people, students, school children need unconventional ways to discover science… something similar to the way science is presented here at this science event (Scientist)

It is indicative that scientists are aware that in general they lack good communication skills and that in order to promote the image of science among the public it is important that they acquire such skills. They also feel the need for special training to present their work in lay terms. I noticed that during the debate some colleagues could not avoid using terms that people would never understand, and that created certain tension… talking to people helps you overcome the stereotypes of professional jargon, which is a great challenge (Scientist)

You need to visualise the message you want to convey, to be more creative. Most colleagues do not break out of the standard way of presenting information. They are afraid that they will lose the respect society cherishes for them… we shouldn't take ourselves too seriously. To find a suitable metaphor with which to present a scientific idea, without using technical terms, is a very special skill which is needed in order to be able to explain your research to a 6-year-old child, or to an elderly violist (Scientist)

Scientists need to be trained in presentation skills for different audiences. It is a pity I never participated in such courses (Scientist)

Unfortunately in this country there is no system for training scientists in presentation skills… I tried to convince the university authorities to launch such a course at least at the Faculty of Journalism. But nobody listened to me (Scientist)

I try to teach my students how to explain specific ideas in a language that people would understand. I am proud that they surpassed me with their ideas. V.St., working on a project for the computer modelling of the "energy landscape" of cellular mechanisms, used several metaphors (a material model of a hilly plane, balls with different potential energy, magnetic discs thrown randomly by visitors so that they could feel the idea of her model, etc). St.A. turned around in circles to illustrate the notion of "involution"... I think Rutherford once said: "If you cannot explain your scientific work to a violinist, you don't understand it deeply enough" (Scientist)

Enhancing career and job prospects

(Thanks to my participation in this event) I have been invited as an expert to other events related to Science in society (Media representative)

I was invited by the organisers of this science event to collaborate in other projects too (Representative from the third sector)

Establishing new contacts

For me personally I met many interesting people, I learned a lot, and last but not least, I enjoyed my participation (Representative from the third sector)

I established contacts with interesting people, who have interesting things to tell, and know how to tell them (Media representative)

For me personally this event helped me get closer to the academic community in this country, to get acquainted with the 'stars' in their research field (Media representative)

(I met) young PhD students, people for whom science is a passion (Representative from the third sector)

Enhancing self-knowledge through "the public mirror"

As already mentioned, for the scientists participation in an event such as this, where they meet different audiences, helps them view themselves and their work from a different prism:

(Participating in the event) is addictive which us a buzz, a great social experiment where I see myself and my colleagues from a different point of view. This evening I was an actress, I read verses, I presented a poetry book written by scientists. This is an opportunity to see your senior colleagues in a more relaxed atmosphere, to see the shining eyes of students watching their teachers. I learned about how scientists from other disciplines view the issues I have been working on (Scientist)

Conclusions

Based on the analysis of how this science event was organised in this country and its social and personal impact, we can draw the following main conclusions.

Scientific events influence different audiences in different ways

Both the motives for participating in the event and the effects of said event may be divided into two main groups –the reasons for participating and the effects thereof for visitors and those for the organisers of the event. For visitors, the main reasons for going to the event are curiosity and the possibility and desire to learn new things, whereas for organisers the motives are related to the need to create a better image for science and scientists among the lay community and to raise the prestige of science and scientists.

The event has both common and differentiated effects on the individual actors involved with its organisation. All individual actors acknowledge that participation in the event helps them improve their communication skills for reporting science. However, the results also show that the event has a specific impact for representatives from the various institutions. For example, for representatives from non-academic institutions, participation in this science event provided an opportunity to enhance their career and job prospects and to establish new contacts, whereas for the scientists the event helps them get acquainted with the different science audiences. The social impact of the event on the institutions which participated in its organisation is three fold:

- Increasing the institution's visibility and public image
- Raising its competitiveness
- Networking

Scientific events are learning events

A scientific event functions as a learning event in a number of different ways. First, for all individual actors their participation in the event helps them acquire knowledge about different science audiences. Second, the visitors to the event learn what type of activity science is and what type of people scientists are. Thirdly, scientists experience the event as a "mirror" in which they can "look at themselves" and "see and assess" their work through the prism of the lay person, which might even lead to a change in their self-perception.

Science is not emotionally neutral: Emotions do matter

A scientific event has a strong emotional connotation –visitors not only learn new things and better comprehend the meaning and the importance of scientific research, they also become more confident in their abilities to use scientific knowledge and experience satisfaction and enjoyment. Scientists also enjoy their participation in the event –it makes them feel proud, happy and satisfied.

There is a need to create a culture of science communication

Popularisation of science can be successful only if it ceases to rely on sporadic campaigns but gradually develops a culture of science communication. This culture is a complex phenomenon comprising various elements such as:

- Developing communication skills among scientists
- Raising awareness of the general public towards science
- Active engagement of different public authorities, such as ministries, municipalities, national associations, involved in the promoting of science culture
- Active involvement of the mass media in science communication
- Special attention to school children and promoting science among them

Recommendations

The analysis of the way this science event was organised and carried out allows us to suggest two types of recommendations:

- Recommendations referring to the conduct of future events
- Recommendations referring to the more general issue of popularising science and the "science – lay community" relationship.

Recommendations referring to the conduct of future events

- A media partnership (high-circulation newspaper and/or TV channel) is necessary. Specialised journals, such as that which was part of the team, are very important but they have a limited audience, and this audience is already "hooked on" science.
- Science events need to be held not only in big cities but also in small towns and villages.
- The events should be held in more diverse venues. As well as traditional sites, such as universities and academy of sciences, they could also be held in public parks, shopping centres, streets in a town.
- The event should be subject of more aggressive advertising the month before it starts.
- All sections on the event's website should be constantly updated with interesting information.
- This science event is worthy of becoming a tradition.

Recommendations referring to the more general issue of popularising science and the "science – lay community" relationship

- Events related to science should be organised in such way that they do not coincide with major political events. As we discovered in our previous studies "politics is still the main topic the public is concerned with" (reference 1). This year, the first press conference about this science event coincided with the terrorist attack on Israeli tourists in the town of Bourgas and this rendered our event "invisible" to the mass media.
- As different audiences use different information channels, science popularisation as well as events related to it need to be advertised in as many diverse Media as possible –both "traditional" and new.

- Bachelor and MA programmes for journalists need to include modules which would provide specialised training on how to present science and science-related events. This is especially important for countries like ours where there is no tradition of reporting science and related events.

- Our analysis confirmed the conclusions that training scientists to communicate their research to the public should become a common policy of the European Commission.

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