

## Report on the Workshop of Public Awareness of Research Infrastructures (PARI) 2017: Communicating the importance of science to society

### Scope of the workshop

Science is exciting, enlightening, complex, fundamental, precise, logical, and creative, all at the same time. However, for the public to get in touch with it and understand why it encompasses all these concepts, efforts need to be made to bridge science and society. With this aim, communication teams at research infrastructures work with a range of methods and channels. They make complex information more tangible and disseminate it as broadly as possible so that the public can understand and be engaged.

This workshop aims to be a hands-on forum for communication officers and public relations staff to share their experiences and expertise. The aim is that participants return home with new ideas for their work, by learning how and with which means other research institutions are communicating the importance of science and of research infrastructures to society.

### Overview of the workshop - Short facts

- 110 participants met for the second time in Garching, Germany from 29 to 30 May 2017 at the PARI workshop to exchange, discuss about and find solutions on public engagement and communication at large scale research infrastructures.
- Three guided tours of the research neutron source FRM II, the European Southern Observatory (ESO) and the construction site of the ESO Supernova were offered.
- Four keynote talks dealt with “Science Communication and success measurement: frameworks, guidelines and some tips”, “20 years of public engagement with science”, “Is there a future for science communication?” and “Science communication research – what’s the big idea?”.
- Six topical parallel sessions: with talks based on submitted and selected abstracts were on “Visitor programmes and engaging the youngsters”, “Engaging the scientists”, “Branding and Funding”, “Unconventional outreach and social media”, “Evaluation”, “Enhancing collaboration”.
- Three interactive sessions were offered: a panel discussion on crisis communication, a mini workshop named “O Brother, where art thou (communicating)?” and a session “Making the case”.

### Main outcomes:

#### Science communication

Science communication is a quite recent term (1994/1995) and is still maturing. Its aim has been developing from public understanding via dialogue to public engagement and even citizen science.

## New Audiences

When communicating, the first step is to identify the key audiences and stakeholders. Science communication does no longer focus on those, who are already interested in science, but is rather aiming for new audiences, e.g. younger children, underprivileged people, in short words the “not-interested” in natural science. For this very diverse and hard to reach audience, communication managers came up with new ideas and shared it with colleagues. Examples are the Ignite IASTro tour in Portugal, where the researchers tour remote places and talk about their science, or the public discovery of stars in parks in Great Britain. It is also important to involve the staff of the research facility in preparing public events, as at the Alba Open day, where staff members from each division are in the organizing committee. Special audiences require special events, as the “Girls’ night out” at the Jodrell Bank Discovery Centre to attract more girls and women for choosing a science career.

## Engaging the scientists

Irrespective of the communication programme every facility has, every communicator needs the scientists. They know the nice little stories behind science, everybody wants to listen or read. So, how to use them as “undercover agents”? One proposal gains extra attention: an agreement with the organisation’s directors was concluded, so that each scientist may spend 5 % of his/her time for public outreach. This means either 2 hours per week or one day per month. This arrangement is not only useful for the communication department; it also shows esteem of the directors for their engagement. Identify enthusiastic students, train them and send them out for showing experiments, giving talks and discuss with the local people showed up as a successful way. The same is working for one event in three different laboratories, they both require a very strict organization, a lot of work, but a low budget.

## Unconventional Outreach

“The social contract is not complete until the results are communicated” (Jacqueline Mitton, Royal Astronomical Society’s Public Information Officer). This is the aim of all outreach activities. Of course, every organization has a webpage and most at least one social media channel, contacts journalists, has visitors and the scientists are giving talks to different audiences. Some even have a video channel with short movies, interviews, and comics or write blogs, some even manage several blogs to different subjects. Some have a regular podcast, make science theatre and music, dance their research and organize national tours in which, on a Saturday evening once a month, a group of nine researchers visit a city or town in “remote” areas. Others provide online tools for educational purposes, show Lego models of their instruments or collaborate with huge music festivals lasting a whole weekend.

## Collaboration

Just like scientists take part of scientific collaborations, communication officers may also benefit of collaborating among themselves, be it internationally, in campuses, conferences, or other contexts. After the PARI workshop, 30 communication officers met to fund a common working group within the ERF-AISBL organisation named RICE (Research Infrastructures Communications and Engagement) for a regular exchange and common projects.

### *Why to collaborate with regards to communications?*

By coordinating efforts we can reach wider audiences and the outcomes are better. By doing so, we prevent MAD -PR (mutually assured destruction by press release) – e.g. often a scientific discovery is the result of collaboration rather than just the actual research centre where it takes place, so it is important that all institutions that contribute to it are credited when the discovery is announced at international level. At national or regional level, institutions may highlight their own contributions so that locals can relate to it and feel inspired.

### *How to implement and enhance collaboration?*

It is important that networks of communicators meet regularly to discuss how to collaborate, set up a framework, and agree on rules. Guidelines should be provided when deemed necessary, and information should be shared as much as possible to ensure transparency and that all members are aware of any new developments. In some cases it might be useful to create lists on Twitter so that the accounts of all members can be easily followed. When members come from different backgrounds, or cultures, or from a country/area where communications training is not available, it is helpful to provide training so that future communications officers have support to do their work, and to ensure consistency among a network.

## Funding

As public funding regularly is not sufficient to realise all projects, alternative ways have to be found. Industrial partners have a large interest in investing in events or even infrastructures. They gain visibility or get benefits, such as use of rooms, exclusive tours, events or even access to junior employees. Challenges are to train the staff who actually has to ask for money. The more, a balance has to be found for the amount of effort put in and the money that is received. Another pathway for funding is using synergies with other organisations or interest groups, for example artists, who are looking for a free space and perform their art in a scientific surrounding, which attracts many new visitors. Design, film and art students are often happy to find interesting projects, where they can produce their art or films.

## Branding

The brand is the total sum of thoughts, feelings, perceptions, beliefs and attitudes of the target audiences. A brand involves a vision about what the organization wants to achieve in the future, a mission, values, key messages and a visual identity. Identifying the target groups is a prerequisite and has to be repeatedly adapted to the different phases of communication, for example there are different audiences in the construction phase than in the operation phase of a research facility. Persuading the management to recognize the advantages of a strategic approach is fundamental.

## Evaluation

Evaluating communication activities is important in order to report about activities and to improve them. The outcomes and the reach (what kind of audiences) can be measured. Activities on social media also need to be evaluated, for example the type of tweets that trigger more engagement than others. Social media statistics can also be combined with google analytics to attract and find out more about the visitors of the website. A regular evaluation of all communication channels and the audiences is highly effective for future measures.

## Crisis communication

In the case of a crisis, it is important to keep to the facts, communicate fast and efficiently: Get the facts right and be transparent. When an emergency occurs, it is important to keep people informed, even if there is no information yet, we should at least acknowledge that we know what is happening and that further information will follow. For such cases, it is important to train and prepare the staff, set up a procedure, which includes the scientists and ensures a consistent message. It is, however, hard to counter emotions expressed by NGOs with facts. Storytelling, i.e. showing the human face of science can be a solution to this problem. The focus should be on the “attackers” who can be reached, whereas “haters” will not change their minds and therefore it is pure waste of time.

## Social media

A strategy is also for social media important. It should be clear, which channels shall be used for what purposes. Many facilities have the latest advances in physics as content, but human stories or quizzes or humorous stories (April fools) attract more interaction. It is also interesting to combine social media statistics with the google analytics tools, to find out if social media attract visits to the facility’s website. Twitter also offers the opportunity to give a voice to scientists at live events, where they can answer questions<sup>4</sup>. Collaboration makes sense on social media, to share content and attract more users. The content should be regular and evaluated in terms of attractiveness.

### Evaluation of the PARI workshop

An evaluation form distributed at the PARI workshop and an online questionnaire accessible after the workshop was filled in by 37 participants.

Most of the respondents had learned about the workshop by an email from the organizers (35%), online announcements (18%) or recommendation (24%). The keynote lectures were overall rated with 3.8 stars out of 5 possible stars. The parallel sessions were rated overall with 4.1 stars (online questionnaire), the interactive parallel sessions with 3.9 (online questionnaire). The next PARI workshop in 2019 will be for sure (45%) and very likely (40%) be visited by 31 of the respondents. Garching was highly positively valued as a workshop location (4,5 stars out of 5). Many comments were given on improving the workshop in terms of content, for example several respondents suggested more hands-on sessions.