

## 243. Workshop Science, Politics and the Media: an Initiative to Trigger Science in the Public Agenda

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**Abstract.** In the last decades, European countries realized there is a need to develop public dialogue of science not only to promote scientific culture but also to promote scientifically informed political decisions. However, the echoes of European-wide initiatives have been difficult to be heard at a national level and communication channels between scientists, politicians and journalists remain poorly established. In Portugal, a hallmark in the promotion of a scientific culture was the creation of a national agency. In addition, research institutions are starting to consider science communication strategies to engage the public with their science and their scientists. In order to discuss the role of science in the Portuguese public and political agenda, a workshop was held in April 2010. The workshop involved leading researchers, journalists, and politicians and resulted in a series of proposals and further initiatives to promote the channels of communication between these communities, such as an audience at the Portuguese Parliament and publication of opinion articles in the press.

**Keywords:** National level initiative, Science in the public agenda

### Introduction

The European Union has been keen to implement coherent strategies for the promotion of a knowledge based society, where science has a determinant role. Despite the accomplishments of the last two decades, regular reports highlight the need to further promote public dialogue in science, as well as to develop scientifically-based decision making in global issues [1-5]. Thus, Europe has been investing in global initiatives in order to create a network of practitioners and stakeholders who shall bridge the gap between science and society at a European level (e.g. The European Union Framework Program 7 package in Science in Society). In addition, there are still significant discrepancies at national level regarding public dialogue in science.

In Portugal, an innovative initiative from the Ministry of Science and Technology has marked the last decade: the creation of Ciência Viva Agency, the national agency for the promotion of scientific and technological culture among the Portuguese population, which has been having a determinant role in the engagement of the young generations and the general public with science [6,7]. Similarly, research institutions have realized the need to come out of the social isolation they have devoted themselves historically.

In order to discuss the state of the art of the presence of science in the public agenda at a national and European level, a workshop was held in April 2010, in Lisbon, Portugal, under the title: Science, politics and the media. The workshop was organized by members of the scientific Portuguese community and gathered together leading researchers, journalists, politicians and science communicators in an open-ended public debate. The organizers aimed a two-fold intention regarding the role of science in the public and political agendas: to promote a joint reflection of Portuguese researchers, politicians and journalists on the existing channels of communication between each other in Portugal; and to transform the discussion generated into feasible outputs to increase the interaction between these three professional communities.

### The Initiative

#### *Workshop design*

The workshop was divided in three main sessions, each one dedicating specifically to the:

- (1) Relationship between the scientific community and the media, including the presence of science in the Portuguese media (Session 1)
- (2) Relationship between scientists and politics, including the role of scientists and the media in political decision making (Session 2)
- (3) Purpose and role of researchers and non researchers when communicating science (Session 3).

A panel of speakers representing the three communities was invited to kick off the discussion of each session, paving the way for discussion with the audience. Each speaker was asked to state specifically three positive aspects, three problematic issues and three possible solutions regarding the topic of the session in a 5 minutes intervention. After this initial intervention, the debate was opened to the audience.

The main points of each session were registered by a rapporteur whose responsibility was to convey and summarize the ideas discussed and present them at the workshop's closing session and in a post-workshop report.

The primarily target audiences of the workshop were the Portuguese scientific community, the media community and the political community, as the aim was to promote engagement and discussion between these three communities. Nevertheless, the workshop was open for the general public and disseminated accordingly.

A special session was organized at the Portuguese Parliament, as a result from the preparatory meeting with the deputy president of the Portuguese Parliamentary Commission for Education and Science.

## **Preparation meetings and dissemination**

The organizers promoted a series of preparation meetings with the invited speakers, which took place during the months preceding the workshop. These meetings intended at promoting pre-workshop brainstorming discussions with the invited speakers and at engaging them with the event.

Prior to the workshop, an extensive dissemination campaign was launched to assure that the event would have a mixed audience, including researchers, journalists, editors, decision makers and politicians. This included dissemination by email to university / research institutes, social networks, advertisement in websites related to science, media, or politics; media partners; and personal contacts to key personalities. In addition, the venue was selected to be credible, public and easily accessible, to ensure a "neutral ground" for discussion.

## **Achievements**

### *Preparation meetings and dissemination*

There were held 13 preparation meetings between the organizers and all the invited speakers individually. The meetings promoted the opportunity for the organizers to update and discuss with speakers the most relevant issues regarding the connections between Science, Politics and Media in Portugal and abroad. This had a positive impact in the organization of the workshop itself as much as in the participation of speakers. Most importantly, preparation meetings were a major contributor for the productiveness of the discussion held at the workshop, having had a direct impact on the appearance of specific, feasible proposals. Preparation meetings allowed, for example, the identification, and subsequent invitation of relevant researchers or decision makers not previously considered by the organizers (to be present in the audience); for the maturation of ideas presented by the speakers at the workshop; and in an invitation for a special session of the workshop to be held at the Portuguese Parliament. In this session, participants met members of the Portuguese parliament, namely from Parliamentary Commission for Education and Science.

A webpage, a blog, Facebook and Twitter accounts were created prior to the workshop in partnership with associated organizations. These tools allowed raising awareness towards the workshop. By April 2010, 1093 Facebook profiles had associated to the workshop profile, in over 500 page visits and over 1000 wall posts, comments and page likes were recorded. On the day of the workshop, 80 tweets were recorded to be related to the event, which was the most commented topic in the Portuguese Twitter community.

## **Participants**

A total of 190 people participated in the workshop, from which 150 were science related professionals such as researchers and science communicators, 32 media professionals and 8 politicians. This distribution was expected, given the topics discussed at of the workshop and the motivations for each professional group. Participants were affiliated to nearly 50 Portuguese different institutions. The majority of science professionals were senior and junior scientists; and science communicators. Media professionals were students and journalists from television, newspapers, and radio from 13 different media corporations and professionals from 5 public relations companies. Politicians included deputies, leaders and collaborators from 6 different institutions such as the Portuguese Parliament, the Portuguese government and other governmental bodies.

The creation of such a mixed audience, albeit predominantly scientifically based, was determinant to promote discussion on the views from the different professional groups. Public events with such mixed audience have not been

regularly held in Portugal.

### **The debate**

Science in the Portuguese media: The relationship between the scientific community and the media was addressed in the first session of the workshop, but its discussion extended to the other sessions.

The debate was launched by a Portuguese and a British journalist, who were asked to focus in their professional experience at their countries.

The relationship between journalists and scientists in Portugal was described as still lacking regular channels of communication. The journalists participating in the debate stressed out their difficulty in finding information about Portuguese science, as well as to have direct contacts of Portuguese scientific institutions and researchers. The recent creation of communication offices at research centers and universities was unanimously seen as a positive step forward. However, it was stressed that the number of research centers investing in these structures is still reduced. Thus, it has been highlighted the need to increase the number of communication offices at research institutions as well as the promotion of trustworthy direct relations between scientist and journalist.

In addition, in her contribution to debate the invited Portuguese journalist focused the many other difficulties that science journalists encounter, namely the incipient development of science journalism in the country.

The origins of science journalism in Portugal can be traced to twenty years ago when a restricted number of journalists and editors promoted the establishment of science sections in specific reference newspapers and other media. However, even though two decades have passed and despite the good quality of the work developed, there is still an extremely reduced number of professionals specifically dedicated to science journalism in Portugal nowadays. It was agreed there are presently only circa 20 science journalists actively working in national media covering both the activity of approximately 40,000 scientists in Portugal and science at international level. Moreover, this reduced number of journalists is not expected to grow in the future, given the negative impact of the global economical crisis in media business. On the contrary, the tendency has been towards the reduction of the number of science journalists working for media worldwide by turning them into generalist journalists. This tendency is even more deleterious in Portugal, where there has been an unprecedented burst in science, not only in quantity of scientists but also in quality of the research published in the last twenty years.

As the reversal of this shrinking tendency of science journalism in classical media is not foreseen, the participants debated on whether the initiative of science journalism should be taken up by the research community. In his contribution, another science journalist said that research institutions and universities should assume leading responsibility for science communication, including science journalism. Among the proposed initiatives was the investment in: 1) communication tools that do not imply mediation by journalists such as science blogs; 2) collaborative sites for science communication; 3) “niche” sites, as already happens in the U.K. and U.S.A. (e.g. <http://www.futurity.org/>).

On the other hand, the British journalist highlighted what has positively changed regarding science in the UK media in the last 20 years. She referred the positive changes in researchers’ attitudes, which started to participate more actively with the media and appear now as interesting and entertaining people, as well as the strong increase in science dissemination initiatives such as festivals. Most interestingly, she refers to the disappearance of science sections in the UK media as a positive indicator of the move of science from a specific issue to become transversal to many media sections. Moreover, she highlighted the importance of science journalism in the increased participation of science in policy making and in public participation.

During the session, it was also discussed that there is still a long way to successfully promote scientific literacy of the Portuguese population. Scientific literacy was considered essential for the establishment of a true public dialogue in science-related issues. Scientists already know they have an important role in this process, but they do not know how to do it.

Most importantly, it was identified a need to work in the communication of risk and in the communication during crisis in Portugal. The existing lack of expertise to communicate risk was interpreted to result from a lack of transversal trustworthy science-based organizations, such as the Royal Society and the National Academy of Sciences in the UK, to effectively communicate risk and lobby for science in the public agenda. One proposal was that regular channels of communication should be promoted by the scientific community, so that when a crisis appears, the communication is facilitated.

It was debated that Portuguese scientists and science journalists can learn from British initiatives, namely in ways for the scientific community to have an active role in controversial issues related to science. This proactive attitude can promote a representative lobby for science views in the media. Specific examples that occurred in the UK

were discussed, including the controversy on in vitro fertilization treatments and public debate on climate changes.

The role of media in science policy, in particular in funding of science was also discussed. The media can influence the promotion of hot topics in science rather than other scientific areas and this can frame science funding decisions. For example, nowadays life sciences have become an hot topic, attracting a good proportion of funding, whether other basic research areas have been left behind (e.g. plant research); and that this can be detrimental, as “we never know from where the next big discovery will come”.

***Channels for scientists and politicians to communicate:*** The relationship between scientists and politicians was addressed during the second session of the workshop. The panel of invited speakers consisted in representatives from the three communities, namely one deputy from the Parliamentary Committee for Education, the President of the Portuguese science funding agency, a renowned Portuguese science journalist and three senior researchers of which one has already served as Secretary of State.

When launching debate, invited speakers highlighted the idea that science, media and politics are three distinct centers of power that are internally heterogeneous and have radical differences between each other in terms of authoritative criteria, language, values, beliefs, interests and priorities; that each center of power, or community, has a patronizing attitude towards the others, even though not explicit; and that the relationship between each other is ambiguous, albeit increasingly more interactive.

The absence of regular interaction between the three communities in Portugal was recognized indirectly by reference to isolated initiatives of public interaction between science and politics, such as the *café scientifiques* at the parliament occurring once a year (i.e. events that gather scientists and politicians to discuss a scientific topic), and to the absence of reference institutions to represent the scientific community as a whole. Thus, a major challenge has been identified as to decipher how to transform the existing, casual and often externally imposed interactions into a network of organized interactions, governing trends and co-production. In addition, it was pointed out that there are at least other two key players to consider: economic power and civil society.

The participation of science advice in political decisions or in societal issues has been well recognized by the scientific community. However, it was identified a need for this community to better acknowledge that the solutions for any societal issues are not merely scientific, but also political, economical and administrative, among other aspects.

It has also been referred that the scientific community cannot limit its participation to science advice and needs to become involved in multidisciplinary teams working on the implementation of solutions. For example, it has been proposed the creation of joint science-public policy platforms in specific areas involving a network of academia, research partners and governmental and non-governmental bodies - one such platform is being created in the area of social sciences; another proposal referred to the creation of a think tank for Portuguese science and public policy, which is currently non-existent.

On the other hand, the excessive hierarchy of political decision in Portugal was identified as a barrier to the participation of science in political decision, as well as the deficient scientific literacy of members of parliament and governmental bodies. To address these barriers, it has been proposed the investment in training and empowerment of the administrative professionals who are often those intrinsically involved in the implementation of public policy strategies. The discrepancies between the “timing of science” and the “timing of political decision” were considered also a relevant barrier to science advice in political decision: when governmental bodies request scientific or technical advice to the scientific community there is seldom a timely response, leading politicians to rely in private consultancy for advice, which is usually based in case-studies from other countries, and thus different contexts.

Regarding science policy, the discussion focused on the challenges for young scientists and how to promote proactive attitudes at the individual level. Participants have discussed whether initiative at individual level, at least for junior scientists, should occur on the level of the research institutions, which could then act to influence political power.

On the participation of the public in science policy, which was recognized to be practically non-existent in Portugal, it was proposed that it could be stimulated with specific initiatives, such as promoting “participative budgets for science”. Participative budgets have been implemented at the local level in Portuguese city halls funding and could be exported to science policy. These would imply the civil society to participate in the definition of a specific parcel of the public budget for science, for example, 5-10% of the annual budget.

***Communicating science in Portugal:*** The state of the art of science communication in Portugal was the subject of the last debate session of the workshop. The panel of invited speakers included researchers with experience in communicating science and professionals fully dedicated to it, albeit in different settings, such as science museums

and research institutions.

The recent advances in science communication in Portugal were discussed. A special focus was given on the role of the national agency for dissemination of the scientific culture *Ciência Viva* in the engagement of the younger generations (and the general public) in science. The essential role of the 19 *Ciência Viva* science centers (settled across the country) for the establishment of a nationwide network of researchers, school teachers, students and other stakeholders was recognized. Moreover, science centers and museums have been acknowledged as privileged venues for engaging the public with science because of their informal and “neutral” nature.

The role of outreach teams at universities and research centers as coordinators of the initiatives from the institutions was also discussed. Although still in a most reduced number, their existence was consensually seen as essential for the development of channels of communication between science and the public.

However, despite the recognition that there has been “a tremendous advance in science communication in Portugal in the last few years”, participants recognized that “triumphalism needs to be cooled down”, as there is still lack of critical mass in the field and the majority of researchers are still not committed to public accountability of science.

There were conflicting opinions on the compatibility of a successful science career with dedication to science communication activities. Whereas some participants found that successful scientists should not only perform excellent research but also engage actively in science communication, others considered that these activities hinder progression in the career in several ways. One important barrier for this was that science communication initiatives are not considered in the evaluation of researchers, at least in a clear and sound manner. The role of research institutions in the motivation of scientists was considered crucial, not only because they can create conditions for initiatives to develop, but also because they can act directly on the recognition of these activities for career progression. It was recognized by participants that although at national and international levels there are already incentives for scientists to engage in science communication, these measures are still lacking implementation at the level of evaluation. Thus, it was proposed that evaluation criteria for research projects funding and individual grants should include specifically previous science communication experience as an asset for researchers’ evaluation; and that science communication experience should count towards students’ evaluation in advanced training, for example, as eligible credits for the European Credit Transfer and Accumulation System implemented for higher education across Europe. The promotion of good practice among the scientific community to value participation in science communication has been said to be dependent on positive pressure from the scientific community itself. Also, it was highlighted the need to invest in professionals fully dedicated to science communication both at the policy and institutional levels.

### Future Perspectives

In a Europe thriving to become a leading knowledge based economy, today the role of science is crucial, but not sufficient. Scientific knowledge needs to be appropriated by the civil society and become part of its cultural, political and economical outputs [8]. In addition, science-based policies for global issues need to become common practice not only at the level of European but also at a local, national level. Scientists, politicians and the media play determinant roles in these processes. In the workshop *Science, politics and media* the Portuguese scientific, political and media communities discussed existing channels of interactions between them and provided common outputs to promote these interactions.

The debate helped to discuss relevant initiatives and to identify major barriers for interaction. It became clear that there are barriers that hinder the presence of science in the public agenda which will only be overcome by a creative approach from both the media and the scientific community. It became also clear that a major challenge is to transform isolated contacts between the public political power, the media and the scientific community into a network of productive interactions; and it was clear that despite the ever growing awareness on the need to engage with the public, the scientific community needs more commitment and know how. To overcome these barriers, specific proposals were discussed such as the creation of a national think tank for science-based global issues; the development of public participation in science and the implementation of evaluation procedures that reward researchers for public engagement in science.

The *Science, politics and the media* workshop was in itself a rare opportunity for the three Portuguese communities to interact. Moreover, the event should be envisaged not only as productive debate but also as a starting point for additional actions currently under way, including the publication of opinion articles in specialized media; the production of a state-of-the-art report to be presented to the Portuguese Parliament; and the organization of future workshops. Thus, this workshop appears as a feasible approach to trigger science in the public agenda at the national level.

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