

Participatory Science and Scientific Participation:

The role of civil society organisations in decision-making about novel developments in biotechnologies.

What is PSx2?

PSx2 is a project that explores the participatory role of civil society organisations (CSOs) in new scientific and technological developments, with particular reference to experiences in the development of agricultural biotechnology (GM plants, food and feeds).

The issue of novel biotechnologies is not only an expanding area of scientific research, but also provides a very important area for social experimentation in more active citizenship and a deeper involvement of the lay public in European research activities.

Five civil society organisations and four scientific institutions are working together in this project funded by the DG research of the European Commission.

The overall objective is to increase the social relevance of scientific research through the promotion of public participation in European research activities.

It is hoped that both the project process and its outcomes can be used to encourage dialogue and constructive engagement between civil society organisations and scientific research institutions.

To this end PSx2 will establish a platform of ongoing exchange and collaboration between scientists and CSOs throughout the entire project and beyond.

Partners

CDG (Genetic Rights Council), Italy

www.consigliodirittigenetici.org

The Genetic Rights Council (GRC) is a foundation involved in research and communication, providing interdisciplinary and independent information on biotechnologies.

ZERP (Centre for European Law and Politics at the University of Bremen), Germany

www.uni-bremen.de

The Centre for European Law and Politics is committed to interdisciplinary legal, socio-legal and political research with the focus on major political and legal developments within the European Union.

GENET (European NGO network on Genetic Engineering), Switzerland

www.genet-info.org

GENET is a European network of non-governmental non-profit organisations engaged in the critical debate of genetic engineering.

GeneWatch UK (GeneWatch), United Kingdom

www.genewatch.org

GeneWatch UK is a science-based policy research group established in 1998.

CRII GEN (Committee on Research and Independent Information on Genetical Genie), France

www.crii-gen.org

CRII GEN is a Committee of independent research and information on genetic engineering. It carries its work with no political stand or any militant approach, but based on scientific research.

ELF (Estonian Fund for Nature), Estonia

www.elfond.ee

ELF is an environmental NGO established in 1991 by biologists and conservationists, whose mission is to protect Estonia's rich biodiversity.

Caen University, Institute of Fundamental and Applied Biology, Oestrogen and Reproduction Laboratory, France

www.unicaen.fr

The Institute of Fundamental and Applied Biology's aim is the diffusion of knowledge, the formation on and the development of fundamental and applied research in biology.

University of Perugia, Department of Plant Biology and Agro-environmental and Animal Biotechnologies, Section of Genetics and Breeding), Italy

www.agr.unipg.it/dbvba/

The Faculty of Agriculture of the University of Perugia has always attributed great importance to genetics, and it was the first in Italy to offer a position of Professor of Plant Breeding (1959) and of Agricultural Genetics (1975).

CSIC (Higher Council for Scientific Research, Department of Compared politics), Spain

www.iesam.csic.es

CSIC is the largest public research body in Spain and is engaged in a multidisciplinary scientific and technical research. It provides scientific and technical advice to the autonomous regions, governments and the private sector.

Objectives

The following specific objectives will be addressed at the various stages of the project:

1. *To discuss how we can reach a shared definition of “participation in science” among the partners in order to clearly define the focus of our investigation. To achieve this goal, the first project meeting has been dedicated to discussing whether it is possible to reach such a definition of ‘participation’. This includes the conditions and constraints that define its applicability and how it is actually intended by both CSOs and scientific partners.*
2. *To conduct a qualitative study on the role of European CSOs’ activities in enhancing public participation in science and research in the field of biotechnological research and governance, with a focus on agricultural biotechnology. The study will be based on data collected through an ad-hoc interview survey that will be conducted with a wide sample of CSOs in the countries where our partners operate. It is expected to get about 100 interviews completed in order to have sufficient data for analysis.*
3. *To identify a sample of ‘Case Studies’ successful in enhancing public participation in science and research. The sample will arise from the information on the CSOs activities gathered through the interviews. The identified cases will inform the search for an emergent definition of ‘participation in science’ and must represent success stories or propose innovative approaches. A number of additional in-depth semi-structured interviews will be conducted to provide the basis for analysis of the most effective participatory practices. The measure of the achievement of this goal will be a detailed description of 5-7 identified case studies covering different aspects of the issue under analysis that will then provide the basis for putting together a Survey on ‘Participatory Science and Scientific Participation’.*
4. *To produce a ‘Survey on Effective Practices for a Participatory Science’. The Survey will result from an intensive peer review activity, involving scientific partners and other identified practitioners, both from the network and outside it. This peer review process constitutes a crucial aspect of our ongoing operative dialogue. The Survey is seen to be a tool to disseminate - both inside and outside the network - ideas and practices that might increase dialogue between science and society.*
5. *To disseminate the results of the analysis within the project network and to a broader range of stakeholders (other CSOs, scientific institutions, national and local authorities, etc.). This goal will be achieved by mean of two main actions: the organization of an international conference to present the general achievements of the project and to explore the potential room for manoeuvre for CSOs in the scientific and regulatory context; the delivery of the Survey to all the CSOs involved and to any other actor identified throughout the project.*

Methods

This project is based on qualitative interviews that were adapted to different national contexts and to a wide range of target CSOs, differing in size, organisation and mission.

Answers were obtained from 106 representatives of various CSOs, either through written questionnaires or by telephone or one-to-one interviews. The CSOs contacted include, but are not limited to, environmentalist organisations, farmer unions, church organisations and organisations working for social justice. The large majority of the respondents is engaged in a campaign against GMOs or consider themselves opponents of GMOs.

The data were qualitatively analysed starting by identifying:

- A) what definitions of participation in science were given by the respondents;
- B) what are CSOs main goals and what the difficulties in achieving those goals;
- C) what are the factors favouring or hindering participation in science.

A comparative analysis of the answers given in different country has been then the basis to refine the analysis and observe national specificities as well as common themes. Further in depth interviews were conducted to provide additional materials for “case studies” important to gain a better insight into what make participatory exercises work.

Preliminary results

Goals and objectives of CSOs

In respect to the introduction of agricultural biotechnology, the goals of CSOs can be summarised as follows:

- To open up the space to question and debate the purpose of scientific technologies
- To highlight social, political and ethical issues inherent to any scientific and technical trajectory
- To emphasise the need for a precautionary approach
- To make a case for alternative futures
- To challenge political and legal frameworks at all levels
- To protect consumer/ individual interests
- To promote mechanisms of co-production of science that fairly reflect the interests of all actors involved / to foster citizenship in science

CSOs definition of public participation in science

It was agreed by CSOs that there is a range of essential features that constitute participation in science. These features include:

- Funding for scientific research should be allocated according to 'public interest' and the needs of the final user.
- Early participation of civil society, at a meta level, when the terms of the innovation process are non-technical
- Everyone could and should be able to participate at some level and in some capacity and this would necessarily include CSOs as 'stakeholders'
- Participation must be on an equal footing to address unequal power relations
- Two way exchange of information, open mindedness and genuine engagement, by the scientific institutions, between themselves and citizens
- Debates about science should involve different opinions/viewpoints
- Openness and transparency are crucial in the development and practice of publicly funded scientific research and its regulation
- The public needs to be given the opportunity to acquire a good understanding of the technical issues
- Participation in science requires consideration of specific interests and ways of life, e.g. women's perspectives and specific requirements and farmer's needs and timetables
- Public participation in science requires evidence that public concerns have been listened to and taken into account

Factors affecting participation in science

The main factors mentioned by CSOs as affecting participation in science are:

- The continued separation of science from its social context by scientific institutions and governments;
- The disinterest of many scientists in finding strategies for communicating with and understanding the perspectives of people outside of their domain of expertise;
- The 'deficit model' widely accepted by scientists on the public understanding of science, challenged by CSOs who argue that understanding works two ways and that very little effort is spent trying to translate wider public aspirations into research questions;
- The lack of political will to change this situation and the narrow framing of science and technology (at National and EU level) in terms of scientific and industrial competitiveness;
- The lack of capacity within organisations/institutions to take on board the responses they elicit from consultation and participatory processes;
- CSOs being rarely invited to participate as members of advisory committees, research councils and arenas where regulations are debated. Research agendas and subsequent policy decisions reflect agreements made 'behind closed doors' in situations that lack transparency and where the only opportunity to comment i.e. to agree or disagree, arises only after proposals have been framed.
- In rare instances where meaningful participation is invited, CSOs generally lack the economic, human and time resources to participate. In some cases this situation will be further exacerbated by unrealistic time frames.

On the other hand, some CSOs would welcome the resources to commission or conduct their own studies of evaluation and research on the GMOs at stake, provided that they are given time and appropriate financial resources.

PSx2

The PSx2 has not yet come to its conclusion but later this year its results are to be presented publicly and widely disseminated.

Please visit the project website for more information and updates on developments.

www.participationinscience.eu

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