# Alliance of Science Organisations in Germany

Alexander von Humboldt Foundation German Research Foundation Fraunhofer-Gesellschaft German Rectors' Conference Leibniz Association German National Academy of Sciences Leopoldina German Academic Exchange Service (DAAD) Helmholtz Association Max Planck Society German Science and Humanities Council

#### Statement

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### Alliance of Science Organisations in Germany on Citizen Participation in Research

Through their research, scientists shape the everyday lives of citizens in many different ways. Conversely, having citizens participate in research and innovation activities is a way in which societal concerns can find their way into research – to the benefit of both science and the humanities and society. Citizens can *actively* participate in research in a number of different ways.

### The potential offered by citizen participation

Citizen participation in research, whether as individuals or in groups of actors, has the potential to:

- increase the diversity of perspectives in research by enabling it to connect with societal issues and perspectives,
- expand the knowledge base, e.g. in terms of practical knowledge and in the area of data collection, thereby also contributing to the expansion of data stocks,
- strengthen the social compatibility of innovation processes from research and development through to use and therefore the chance of their dissemination and application,
- provide citizens with a more informed insight into research and the processes it involves,
- arouse and deepen citizens' curiosity and interest in science and the humanities, thereby promoting the development of a knowledge-based society; and
- contribute to making research processes more transparent and open, thereby increasing the acceptance of science and the humanities in society.

For this reason, the Alliance of Science Organisations enables participation in research and actively supports it where it promises added value for science and the humanities and society. The actions of the Alliance are based on the following premises:

# Premises underlying citizen participation

- In accordance with the freedom of science and research guaranteed in Article 5 (3) of the Basic Law for the Federal Republic of Germany, the decision regarding the type and extent of citizen participation and any incorporation of the results of participation in the research process should always be the responsibility of the researchers themselves.
- Organisation of participation is cumbersome and ties up resources that are subsequently no longer available for other uses in research. Citizen participation in research should therefore not be an end in itself but should promise scientific and societal added value that justifies the necessary investment of time and resources for both researchers and citizens. In view of this, it is also important for participation measures undertaken to be regularly reviewed for their effectiveness.
- Researchers' commitment to citizen participation should also be anchored in the scientific reputation system as a generally recognised and voluntary activity within research. The assessment of this commitment in scientific selection procedures should be based on its contribution to the quality of the respective projects or their research design.

• Citizen participation in research should not be expected in the same way in all research fields and projects. For example, topics are often better suited to participation measures that are tangible and close to everyday life, such as social preventive research, controversial areas of application (e.g. the use of nuclear energy), research ethics issues (e.g. animal testing, genetic engineering) and the optimisation of products, services and processes; this does not apply in the same way to topics that tend to be far removed from everyday life and from practical application and are therefore more difficult to grasp, such as basic research in mathematics or quantum computing.

### Forms of citizen participation in research

Participation in research is multi-faceted and can give rise to different roles for citizens; the implications of this need to be considered before implementing participation measures. The roles for citizens can be distinguished based on the three basic stages in the research process – planning, implementation and dissemination.

# 1. Citizens in research planning

Research questions are usually defined by researchers themselves based on the existing state of research. In doing so, researchers interact closely with policymakers and society, who set the funding policy framework through the development of research agendas and funding programmes.

The Alliance of Science Organisations welcomes the offer of research organisations to provide additional opportunities for interested citizens to contribute their ideas to research (e.g. in the form of research questions). This can be done via traditional networks and platforms as well as by means of experimental formats (e.g. living labs or maker spaces) or special exchange forums such as citizens' dialogues for generating ideas.

## A key point here is that

- researchers must be free both in their decision to get involved in such formats and in their decision to pursue the ideas generated (e.g. research questions) and integrate these in their research.
- If citizens are involved in scientific selection and decision-making processes, care should be taken at all times that the assessment of researchers continues to be based primarily on the quality of their scientific accomplishments.
- Researchers will ideally prepare citizens in advance for envisaged participation in research planning by means of introductory events and workshops in order to provide them with the level of knowledge that may be necessary (e.g. relating to research already carried out in a particular field).

### 2. Citizens in the implementation of research projects (citizen science)

Citizen participation in research projects can range from traditional forms of data collection (e.g. reporting bird and insect sightings, participation in guided sampling) to co-researching and the independent development of concepts within a research project.

The members of the Alliance of Science Organisations support citizen science in a variety of ways according to their differing missions: they promote citizen science projects and are contributing to the further expansion of citizen science in the German research system according to the white paper *Citizen Science-Strategie 2030 für Deutschland* ("Citizen Science Strategy 2030 for Germany").

### A key point here is that

• the type and intensity of citizen participation (e.g. participation in data collection, analysis, research design, etc.) should be based on the respective needs in the research field and projects and should therefore be defined by researchers themselves.

- The integration of citizen science in research processes should be strengthened as a component of research and the range of funding instruments should be more effectively and sustainably anchored in the structure of the scientific reputation system.
- Scientific quality standards must be maintained at all times. The Alliance organisations
  therefore support the development of good citizen science practice in research by producing
  guidelines and conducting accompanying research on the impact of citizen science, for example, as well as by carrying out evaluations and offering training and further education
  programmes.

#### 3. Citizens in research dissemination

In view of the enormous growth in knowledge, many science communication formats initially focus on communicating the outcomes of research. In addition, there are now numerous formats geared towards engaging in dialogue with citizens. In its 10-Punkte-Plan zur Wissenschaftskommunikation ("10-Point Plan for Science Communication") (2020), the Alliance of Science Organisations committed itself to taking greater account of the recipient perspective in order to make its communication more directly relevant to the everyday reality of citizens.

Participatory science communication – i.e. an appraisal of the impact of research and its results on society and feedback with societal perspectives in the transfer of knowledge – can increase citizens' understanding of and trust in scientific procedures and processes.

# A key point here is that

- participatory science communication should, among other things, allow creative and independent engagement with research methods and research outcomes through the use of new, experimental formats, make use of new forms of media interaction, take into account science-critical reservations and also allow elements of emotionally effective dialogue.
- Research outcomes should be presented clearly and comprehensibly in the context of the immediate everyday reality of citizens in order to include target groups that are difficult to reach, not only appealing to groups that already have an affinity with science. Research museums have a key role to play here.

The **Alliance of Science Organisations** is an association of the most important research organisations in Germany. It regularly comments on important issues of research policy. The Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) is a member of the Alliance and is the spokesperson organisation for 2022. Other members are the Alexander von Humboldt Foundation, the German Academic Exchange Service, the Fraunhofer-Gesellschaft, the Helmholtz Association, the German Rectors' Conference, the Leibniz Association, the Max Planck Society, the German National Academy of Sciences Leopoldina and the German Science and Humanities Council.

## Media contact

DFG Press Office and PR activities Kennedyallee 40 53175 Bonn Tel. +49 228 885–2109 Fax +49 228 885–2180 presse@dfg.de www.dfg.de/en

Go to the website of the Alliance of Science Organisations in Germany <a href="https://www.allianz-der-wissenschaftsorganisationen.de">www.allianz-der-wissenschaftsorganisationen.de</a>