

ECSA Policy Paper #1

Endorsing the German Green Paper on Citizen Science

1. Introduction

The German research and capacity building project "Citizens create knowledge, knowledge creates citizens" (Bürger schaffen Wissen, Wissen schafft Bürger – GEWISS) has elaborated the Green Paper "Citizen Science Strategy 2020 for Germany". A series of stakeholder round tables, workshops and information materials have fed in to the development of the Green Paper, which is now publically consulted before being submitted to the Federal Ministry of Education and Research. The project is funded by the ministry and has been carried out by a consortium of member institutes of the Helmholtz and Leibniz associations in cooperation with partners.

The Green Paper introduces the current role of Citizen Science in Germany, identifies pertinent challenges and recommends a series of actions to foster Citizen Science in Germany.

This ECSA Policy Paper was drafted by the ECSA Steering Committee based on a review of the Green Paper. It will be published on the ECSA website and submitted to the consultation process in Germany.

2. Welcoming a model initiative

The European Citizen Science Association is a network of Citizen Science initiatives carried out by research institutes, universities, natural history museums and civil society organizations with the aim to support the Citizen Science movement in Europe and around the world. ECSA currently unites 90 individual and organizational members from 22 countries across the European Union, Switzerland, Israel and the United States of America with the joint mission to connect citizens and science through fostering active participation.

With the GEWISS project, Germany has implemented a forerunner initiative for gaining reliable data and knowledge on the landscape of Citizen Science in the country, working with stakeholders to identify benefits and needs of such initiatives as well as for making recommendations to policy and decision makers on how to support the field. ECSA has been created to strengthen and advance Citizen Science as an approach to complement and enhance research and innovation emphasizing the active role for citizens in the process of scientific knowledge generation. We thus highly welcome the systematic approach and the participatory development of the Green Paper for Citizen Science in Germany and endorse the actions suggested therein with the objective of fostering Citizen Science.

3. Underlining the benefits of Citizen Science

The Green Paper understands Citizen Science as an approaches aiming at the generation of new knowledge with relevance for research, implementation of research results and policy while co-operation between researchers and volunteers, respectively science and society, might take various forms (p.4).

This definition reflects the flexibility of the term Citizen Science which is used for a wide range of participatory research approaches and engagement formats while its meaning varies considerably across European research and linguistic cultures.

As benefits of this cooperation between science and society the Green Paper identifies (p.4):

- Strengthening the societal relevance of science through the inclusion of research questions from society into research;
- Better scientific results through inputs of citizens' perspectives, regional and local knowledge, and
 the possibility of generating large-scale data sets in space and time that would not be possible
 without volunteer participation;
- Increased understanding of science and research in the public;
- More possibilities for civil society engagement and participation for the population in science and
 research matters as well as an increased potential for implementing and productively using the
 results of science in and for society.

With these characteristics Citizen Science is seen as an essential building block of sustainable development.

These views resonate very much with the ECSA vision that advocates Citizen Science as an approach interlinking benefits for research and innovation with empowerment of citizens and environmentally as well as socially sustainable development.

4. Recognizing challenges and endorsing recommended actions

The Green Paper proposes the following objectives for strengthening Citizen Science in Germany (pp. 8):

- 1. Creating a culture of recognition and reward for Citizen Science in science and society at large;
- 2. More diverse and pervasive involvement of Citizen Science in research processes;
- 3. Fostering networking and exchange between science and society (*through* Citizen Science) and between Citizen Science practitioners (*on* Citizen Science);
- 4. Improvement of data quality in Citizen Science and establishment of trustable analogue and digital infrastructures for Citizen Science data and data management;
- 5. Clarification of legal and ethical conditions of Citizen Science;
- 6. Expansion of existing funding instruments as well as establishment of new ones;
- 7. Improvement of training in the use of Citizen Science approaches and volunteer management;
- 8. Extending synergies between Citizen Science and Science Communication;
- 9. Integrating Citizen Science into education concepts.

If not exhaustive, these points represent a broad and well-balanced summary of very pertinent issues to increase the acceptance of Citizen Science, mainstream its use and improve the quality of projects both for research and for participation. The challenges mentioned are critical and the recommended actions instrumental for better realizing the innovative and transformative potential of Citizen Science for science and society.

5. Embracing a European Perspective

An aspect that is well worth to be added to the considerations presented in the Green Paper is the importance of networking and co-operation beyond borders in Europe and internationally. The globalized nature of much cutting-edge research and the efforts to make the European Research Area a reality as well as the substantial societal – economic, political, legal and cultural – relevance of the European Union and other international constellations need to be taken into account. While we agree that different levels of networking and exchange are suitable for different purposes – and thus local and national networks fulfil essential functions for building communities of practice – we believe that excellence, transformation and sustainability are intimately linked to cross-border cooperation. Only jointly can we effectively address the grand challenges of our time – and meaningfully explore the roles Citizen Science can fulfil in this endeavor.