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Österreich forscht
www.citizen-science.at

Quality Criteria for Citizen Science Projects on *Österreich forscht*

Version 1.0

Developed by the Citizen Science Network Austria working group on quality criteria.

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Preamble

The platform *Österreich forscht* (www.citizen-science.at) was founded in 2014 with the objectives of (1) connecting citizen science actors in Austria, (2) providing the broadest possible overview of citizen science projects in Austria, and (3) scientifically advancing citizen science as a method.

Following the initiative of the platform *Österreich forscht*, many of the institutions that are active in citizen science joined forces in the *Citizen Science Network Austria* in 2017, and thus agreed to advance the quality of citizen science in Austria (http://www.citizen-science.at/the-platform/the-network).

An important step in this regard was the establishment of transparent criteria for projects wishing to be listed on the platform *Österreich forscht*. The objective of these criteria is to maintain and further improve the quality of the projects presented on the platform.

Between March 2017 and February 2018, a working group of the platform *Österreich forscht* consisting of representatives from 17 institutions developed criteria that allow for the transparent evaluation of projects applying to be listed on *Österreich forscht*. This was a multi-stage process, building both on the knowledge of the working group members as well as on feedback repeatedly provided by external experts from the respective research fields. Throughout October 2017, a version of the quality criteria was available for public online consultation on the platform *Österreich forscht*, so as to incorporate the knowledge of the general public into the criteria as well.

The final version of the quality criteria was presented at the 4th Austrian Citizen Science Conference, 1-3 February 2018, at which point the criteria also came into effect. Projects already listed on *Österreich forscht* can adapt to meet the criteria over the next year. Projects wishing to be newly listed on *Österreich forscht* must meet these criteria at the point of listing.

Where necessary, the quality criteria will be adapted in the future, in order to respond to new challenges and developments. The version number, i.e. which version of the criteria a project corresponds to, will be indicated on the respective project page.

The first part of the criteria is primarily aimed at establishing what defines a citizen science project. Here, we decided on a negative list (i.e. projects that are NOT citizen science), in order to be as open as possible to different concepts and disciplines.
The criteria in the second part are to be understood as minimum standards which all projects listed on the platform *Österreich forscht* must fulfil.

The evaluation will be carried out by the coordinators of the platform *Österreich forscht* in consultation with working group members.

For the quality criteria working group, the chairs

Dr. Florian Heigl and Mag. Daniel Dörler

Criteria

Citizen science projects on the platform *Österreich forscht* meet the criteria listed in the following, excluding projects:

… that exclusively involve people with project-specific professional and scientific backgrounds.

… by professional scientists or scientific institutions, in which people are merely interviewed regarding their opinion / attitude, way of life, etc.

… by professional scientists or scientific institutions, which merely collect data on participants.

… by professional scientists or scientific institutions, in which participants provide resources only passively.

1. There must be a stated scientific question, hypothesis or goal that can be answered, tested or achieved with the project.

2. The methods must be presented in a field-specific, appropriate and comprehensible way.

3. New knowledge must be generated (e.g. improved understanding of certain relationships), or new methods developed.

4. There must be an added value for all participants, both citizen scientists and professional scientists.

5. The objectives of the project must be unachievable without the citizen scientists' collaboration.

6. Citizen scientists must be involved during at least one project phase. Common phases or elements of research projects include:
    - Search for a topic and formulation of research questions
    - Method design
    - Data collection
    - Data analysis and interpretation
    - Publication and communication of results
    - Project governance

7. The project definition and objectives are open, clear, easily found and communicated in an accessible and generally comprehensible manner.

8. The assignment of tasks and roles in the project (from the project leader to the citizen scientists) must be clear and transparent.

9. All data and metadata is made publicly available, provided there are no legal or ethical arguments against doing so.

10. The results are published in an open-access format, provided there are no legal or ethical arguments against doing so.

11. The results are findable, reusable, comprehensible and transparent.

12. The project workflow and exact expectations towards all project participants, especially the citizen scientists, are clearly communicated and different interest groups are addressed accordingly.

13. Contact details (e.g. e-mail address, phone number or contact form on the website) are easy to find, in case of questions or feedback. Interaction between project management and citizen scientists must be possible at all times.
14. Citizen scientists receive feedback on the progress and the results of the project.
15. The project results are published in a generally comprehensible manner.
16. The project objectives must be ethically sound (i.a. in compliance with human and basic rights).
17. The project must follow transparent ethical principles in compliance with ethical standards, such as obtaining informed consent from participants or the parents of participating children, among others.
18. Clear information on data policy and governance (regarding personal and research data) must be published within the project, and participants must consent to this information prior to participation.
19. Project management must reflect and consider ethical aspects (e.g. diversity, inclusion, gender equality, reflection on in- or exclusion of specific groups).
20. Prior to data collection, all projects must have established a data management plan which conforms to the European General Data Protection Regulation.