



ORION Citizen Science Call Funding Initiative



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 741527 and runs from May 2017 to April 2020.

The H2020 ORION project has opened a call for grant proposals on citizen science to support research activities in life sciences and biomedicine that enable scientists and citizens to work together with the ultimate goal to generate new scientific knowledge, using collectively their expertise, skills, technology, curiosity and motivation.

About the ORION project

The [ORION project](#) aims to trigger institutional and cultural change in research and funding organizations in life sciences and biomedicine to “embed” Open Science through Responsible Research and Innovation (RRI) principles (ethics, gender, governance, open access, public engagement, and science education) in their policies, practices and processes to organize and do research. This is achieved by diverse co-creation experiments, including public dialogues on research strategy and disruptive technologies, and citizen science.

ORION is a 4-year project (from May 2017 to April 2021) that is funded by the European Commission’s Horizon 2020 research and innovation programme under the Science with and for Society (SWAFS) Work Programme.

What is Citizen Science?

Citizen Science is scientific research conducted, in whole or in part, by large numbers of amateur (or non-professional) scientists ([“Wikipedia”](#) definition). Citizens actively contribute to science with their intellectual effort, surrounding knowledge or with their tools and resources. Participants collaborate with researchers by providing experimental data and facilities, raising new questions and co-creating a new scientific culture. While adding value, citizens acquire new knowledge and skills, and deeper understanding of the scientific work and processes in an appealing way ([Green Paper on Citizen Science](#), 2014).

There are multiple examples of Citizen Science projects, from research activities in biodiversity, cosmology to neuroscience and biochemistry. You can contact your Communication/Public Engagement department for further information on this novel research approach and to find out about good practice, guidelines and scientific publications on citizen science.

The call

The “ORION Citizen Science Call” aims to support research projects that enable scientists and citizens to work together with the ultimate goals to 1) generate new scientific knowledge and 2) create bridges and new collaborative opportunities between citizens and scientists. Citizens participate on the basis of their skills, expertise, resources and curiosity. Learning mechanisms and validation systems shall be considered in the project not to compromise research integrity, quality and excellence.

Researchers from the Centre for Genomic Regulation (CRG), CEITEC, the Babraham Institute (BI) and the Max-Delbrück-Center for Molecular Medicine in the Helmholtz-Association (MDC) can propose a project based on already funded research with a new “Citizen Science” component/expansion or a new project, based on their expertise and scientific interests, in the fields of life sciences and biomedicine. Collaborative projects among researchers from the different institutes are encouraged.

The proposals need to engage citizens regardless of age, gender or social background, and can also involve individuals or societies with specialised knowledge or expertise. Depending on the characteristics of the projects, citizens’ engagement can vary:

- Crowdsourcing: involvement of citizens in data collection or processing
- Distributed intelligence: involvement of citizens in data analysis and interpretation



- Participatory science: involvement of citizens in the advancement of methods, instruments and/or products
- Collaborative science: involvement of citizens in problem definition, development of research questions and/or quality criteria

Citizens' engagement can be at different stages of the project, from design and hypothesis generation, to data collection, analysis and further results exploitation. High levels of engagement will be favourably evaluated.

Important: The involvement of citizens as mere "research subjects" or "data sources" (e.g. as simple providers of samples or data, survey respondents, etc.) without making use of their expertise is not a component of citizen science as defined for the purposes of this initiative.

The projects need also to follow Responsible Research and Innovation principles, specifically ensuring gender equality (balanced representation of men and women during the research process, and consideration of sex/gender aspects in the research design and methodology), open access (to publications and data, while preserving confidentiality and security), and research integrity and ethics.

Eligibility

The call is open to researchers working at the four research institutes that participate to the ORION Project, namely the Centre for Genomic Regulation (CRG), CEITEC, the Babraham Institute (BI) and the Max Delbrück Centre (MDC). Researchers should be hired by the institutions for the full duration of the project.

Projects need to be supported by a Principal Investigator, but they can be run by researchers at different career stages with commitment until the end of the project. Projects shall be carried out in close collaboration with the Communication/Public Engagement department of the host research institute to facilitate effective outreach to society.

Collaborative projects between researchers from the different participating institutes (CRG, CEITEC, BI, MDC) are highly encouraged, and will be positively evaluated. It is also possible to establish a collaboration with researchers from [EU-LIFE](#) institutes that are not part of the ORION consortium. In the latter case, the main Principal Investigator should still be located at one of the four research centres participating to ORION (CRG, CEITEC, BI or MDC).

Funding

The available funding is maximum 100,000€. Up to two projects will be selected (with a budget of maximum 50,000€ each as direct costs). Indirect costs will follow EC regulations, and will be calculated as 25% of the direct costs.

Funding can be requested for research (consumables, personnel, services, etc.) and communication costs (website, community management, press releases, events, flyers, etc.). The call will not support purchase of new equipment. Sub-contracting should be avoided, but if strictly required, it should be justified in detail.

Duration

The Project shall start in November 2018 with a maximum duration of 2 years, until October 2020. It will not be possible to grant a project's extension as the funding is linked to the ORION project with a specific timeline.

At the start of the project, the ORION team will collaborate with the awarded researchers in further elaborating the project to ensure it meets the expectations of the initiative: citizens' engagement, effective communication within the project and with the citizens involved, "openness" of the research process, data and results, and



outreach to the general public. The ORION team is composed of representatives from the Communication/Public Engagement departments at CRG, CEITEC, BI and MDC.

Submission

The complete proposal should be saved as a single pdf-file (max. file size 8 MB), and submitted online:

<http://www.orion-openscience.eu/form/citizen-science>

Timetable

Date of publication: 21st February 2018

Deadline: 30th April 2018, at 15:00 Central European Time (CET).

Evaluation: panel meeting second-half of June 2018; final resolution beginning of July.

September-October: preparation of the project with Communication/Public engagement department at the host institute and ORION team.

Start of the project: November 2018.

Evaluation

The ORION Project Manager will run an initial **pre-check** of the applications. Applications that are submitted after the deadline, are not complete or do not comply with eligibility criteria will be rejected.

Applications that have passed the pre-check stage will be evaluated following a 2-stage procedure.

During the first stage, each proposal will be remotely evaluated by 2 scientific experts in the research field of the submitted application and 2 citizen science experts. Only proposals above the threshold for each criterion (as mean of the 4 scores) will pass to the second stage evaluation (see evaluation criteria below). During the second stage, a panel of experts will receive feedback from the first stage evaluation and evaluate the selected proposals when the panel meets in person.

The panel of experts includes recognized experts in the field of citizen science, scientists with long-term vocation to public engagement and science communication, and citizens' representatives.

The following three criteria and sub-criteria will be taken into account during both stages of evaluation:

1. Excellence of the research project
 - a. Clarity and relevance of research objectives
 - b. Fruitful interaction and engagement with citizens
2. Implementation
 - a. Well-developed methodology for researchers and citizens to ensure data quality
 - b. Openness of research process and data
 - c. Efficient communication strategy
 - d. Collaboration with other research institutes within EU-LIFE
 - e. Well justified budget planning and ethical aspects
3. Impact
 - a. Impact on science
 - b. Impact on researchers and citizens participating in the project
 - c. Impact on society



The three evaluation criteria will have the same weight, and will be scored from 1 to 5 (being 1 very poor, 2 poor, 3 sufficient, 4 good, and 5 excellent). For the proposal to be eligible to the second stage evaluation, each criterion should reach at least a score of 3.

The panel of experts can also address specific recommendations and suggestions to improve the success and impact of the project.

On the basis of the expert panel's evaluation and recommendations, the ORION Steering Committee will issue the official funding decisions. The applicants will be informed in writing and will receive the evaluation report prepared by the panel.

Reporting

To follow the projects' development, awardees shall submit an intermediate report to the ORION team at months 6 and 12 after the start of the project. The report will present preliminary results and discuss citizens' engagement. A final report shall be delivered at the end of the project (month 24).

Proposal structure

The application should be maximum 5-pages long (sections 1 to 5), excluding the CVs and Ethical issues.

Applications need to be written in English, using Arial or Times New Roman character (11pt type, 2 cm margins, spacing 1.0), and submitted as PDF, including the following sections:

1. PRINCIPAL INVESTIGATOR(s)

First and Last Name

Position

Research institute

2. ABSTRACT

Brief summary of the project in lay language (max. 2,000 characters including spaces).

3. EXCELLENCE

a) *Hypothesis and objectives - Description of hypothesis and main objectives, related to state of the art.*

b) *Citizens' engagement - Description of citizens' involvement in the project. How will they be selected? How will they be engaged through the whole project? How do they participate? During which stage of the project?*

4. IMPLEMENTATION

a) *Methodology - Description of methods, work plan, and timeline (Gantt chart), addressing data management and quality. Openness of methods and data is required, without compromising ethical principles of privacy, confidentiality and security.*

b) *Collaboration – If feasible and relevant to the project, description of collaboration with other researchers within the EU-LIFE community.*

c) *Description of communication strategy and main activities.*

d) *Budget and cost breakdown - Description of foreseen budget, and its breakdown in different categories. Use the available table template.*

5. IMPACT

Description of main outcomes, highlighting new research insights that will be obtained thanks to the participation of citizens as well as benefits for the citizens in participating to the project. Description of potential social impact expected.



6. AUTHORS

Brief CV of co-authors in the proposal. Include 1-page max. CV per each author who contributed to the application; free format.

7. ETHICAL ISSUES

If ethical issues are relevant for the proposed project (e.g. research on animals, human subjects or samples, or privacy and data protection), each of them needs to be addressed in this section.

Contact persons

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@ CRG: Alexandros Nikolaou, alexandros.nikolaou@crg.eu and Elisabetta Broglio, elisabetta.broglio@crg.eu

@ MDC: Luiza Bengtsson, luiza.bengtsson@mdc-berlin.de

Annex 1. Guide and tips to write the ORION proposal in citizen science

When you plan the project...

1. Define a clear research question and the benefits of using a Citizen Science approach. Think about what the benefits could be for the participants and the scientists.
2. Contemplate whom you could invite to your team, out of scientific profiles, to support you in the project. Citizens can help you to define clear and concrete goals at the beginning of the project.
3. Identify the public audience you will address. Have you taken into account their skills and interests? You will need this information to build a good communication strategy. Did you reserve budget for these activities? Contact your science communication/outreach experts if you need help.
4. Design a data collection protocol and mechanisms to guarantee data quality.
5. Propose a strategy to train citizen scientists (online material, games, courses, etc.). Take into account the time you and your team will invest in it.
6. Indicate how you plan to communicate the data for the general audience and give feedback to participants, motivate them and keep them motivated through the different stages of the project.
7. Decide where and how the data will be stored (long term), taking into account the concept of FAIR and open data. Investigate what licenses and formats you can use for data, photos and reports.
8. Potential legal issues vary by jurisdiction: clarify them with legal experts, if needed.
9. Plan how the results will be published and what will be the target audience of the publication.
10. Plan how the different participants will be rewarded for contributing to the project.

Tip: In project planning, it is important to determine if there is a project that is already doing the same thing. You can communicate with those who lead the active projects to learn what are the barriers they have had in their development.

