

Community tuned for research

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Webinar “Citizen Involvement in Open Science: Roles, Levels and Opportunities”, May 26, 2022

Agenda...

What is citizen science?

Who are stakeholders? Why?

What can help to practise citizen science?



What is citizen science? (1)



Citizen science is community-based **participatory research practice**



What is Citizen Science? (2)

Society can participate in the research process in a variety of ways: observing phenomena, collecting, processing and analyzing data, generate ideas for research, maintaining a close-knit community with the aim of studying and preserving local phenomena as part of the world's riches, funding a research project, etc.

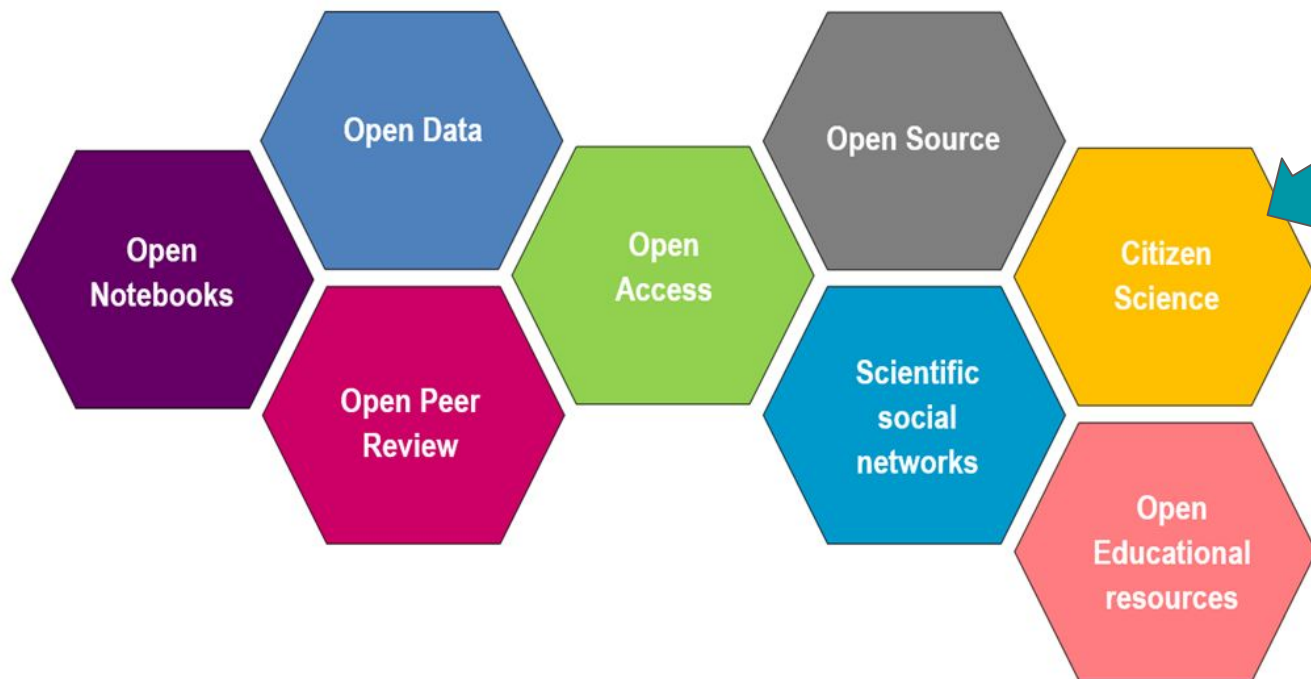
Researchers can be the initiators and organizers of citizen science projects, as well as experts in the field of science in projects and activities organized by members of the community, facilitators of scientific literacy, knowledge brokers etc.

What is Citizen Science? (3)

Citizen Science is just one **term used to identify research activities and projects that engage the community:**

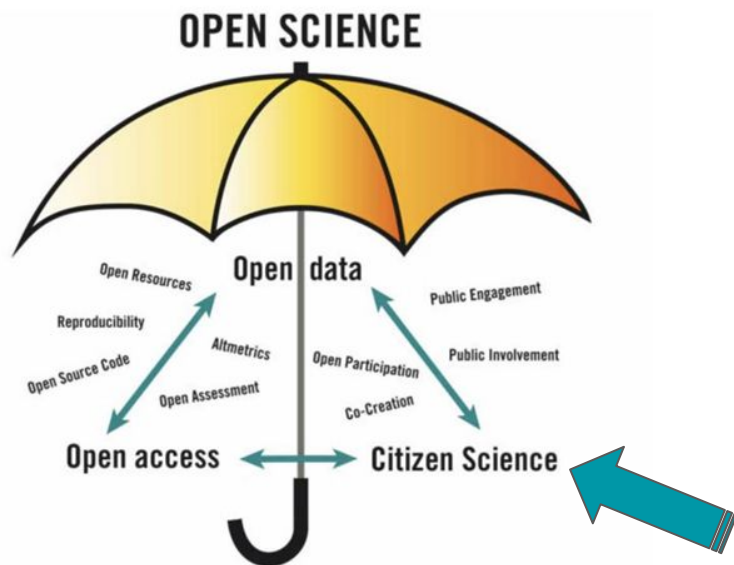
- Citizen Science
- Community Science
- Participatory science
- Civic science
- Crowdsourcing
- Crowd-sourced science
- Community-based participatory research
- Participatory action research
- Citizen engagement in science
- Civic participation in research, etc.

Citizen Science as an element of Open Science (1)

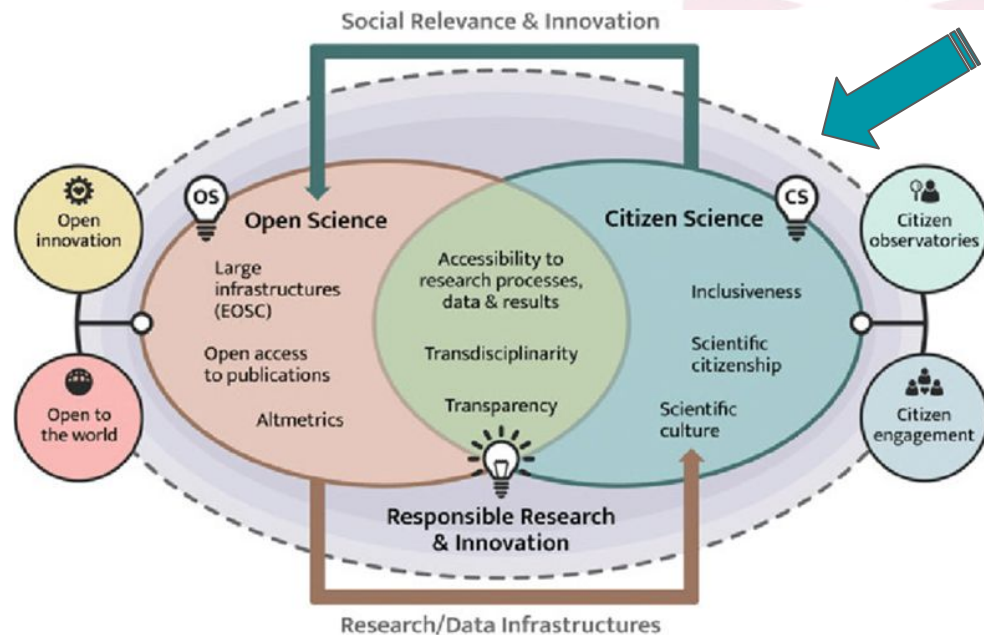


Source: Gema Bueno de la Fuente. What is Open Science?, <https://www.fosteropenscience.eu/content/what-open-science-introduction>

Citizen Science as an element of Open Science (2)



Source: Lotta Tomasson. . Open Science as an umbrella concept
https://en.unesco.org/sites/default/files/csgp_csos_cop_short_paper_on_open_science_may_2020.pdf



Source: S. Schade et al. The relationship between citizen science and open science.
(Based on Vohland and Göbel (2017), modified). [10.1007/978-3-030-58278-4_18](https://doi.org/10.1007/978-3-030-58278-4_18)

Who is involved ? (1)



Citizen Science provides an **interaction between society and scientists**



Who is involved ? (2)

Reasons for **organizations and professional researchers** to involve amateur researchers in their projects and activities:

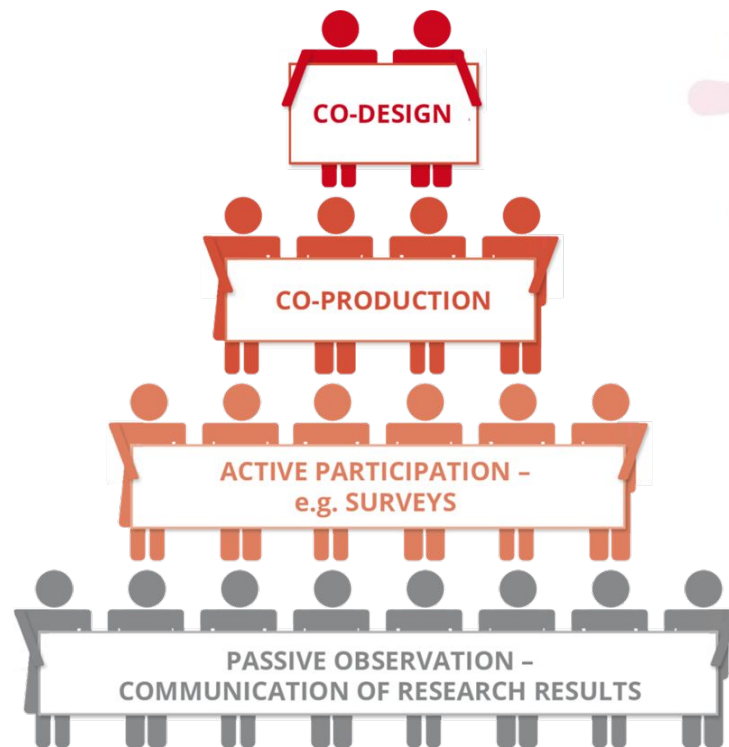
- Spreading knowledge and science curiosity to people
- Improving scientific literacy among the general public
- Facilitating research on a bigger scale by adding additional people
- Developing new methods
- Networking or building stronger connections between citizens and scientists
- Focusing research on more relevant subjects and on citizens' priorities
- Practising inclusiveness and guarding diversity

Who is involved ? (3)

Reasons to be a **volunteer** in science:

- Learning
- Developing new skills
- Networking, professionally or casually
- Trying to do new things or even new career path
- Developing good habits
- Feeling good by doing something for the greater good
- Practising inclusiveness and guarding diversity

Who is involved ? (4)

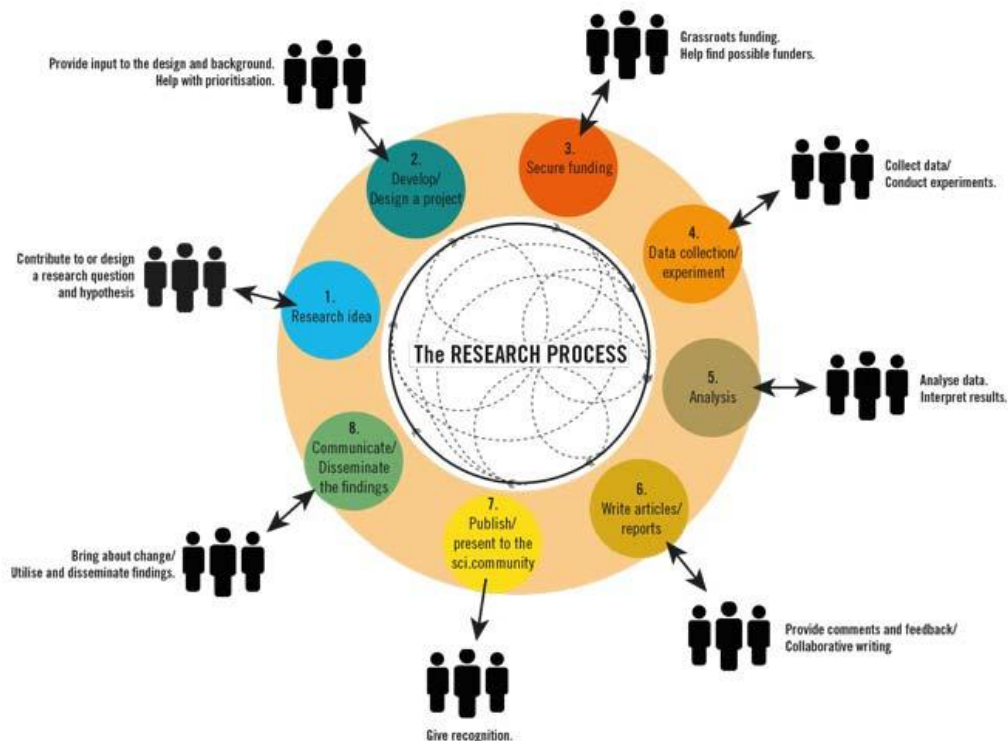


Source: Participation pyramids. Citizen Scientists can get involved at different stages of research (illustration by Sonja Kreft, MfN).

[DOI:10.13140/RG.2.1.4964.0563](https://doi.org/10.13140/RG.2.1.4964.0563)

Who is involved ? (4)

CITIZEN SCIENCE = co-creation with the public during the research process



Source: Citizen science involves researchers co-creating with the public in some way during the research process.

Illustration by: Lotta W Tomasson/VA

<https://v-a.se/english-portal/citizen-science/>

Who is involved ? (5)

Reasons for **memory institutions professionals** to participate in citizen science projects and activities:

- Supporting researchers by relieving them of practical work processes indirectly linked to research
- Sharing knowledge and science curiosity
- Improving scientific literacy among the general public
- Developing networking culture for effective collaboration in community
- Providing an environment for effective stakeholders or participants meetings
- Promoting knowledge and skills about the latest trends in the use of information and communication technologies
- Practising inclusiveness and guarding diversity

What helps stakeholders to collaborate? What helps interested people to meet?



European
Citizen Science
Association

ecsite

EUROPEAN NETWORK
SCIENCE CENTRES & MUSEUMS



CITIZEN SCIENCE
ASSOCIATION



**Australian
Citizen Science
Association**



and more...

How to start?

- Citizen Science project online platforms
- Training platforms
- Educational events
- Guides
- Newsletters
- Calls for research applications
- Studies on Citizen Science initiative and impact, citizen engagement and open science
- Citizen Science case studies



3 Initiating a citizen science project – choosing partners, methods and participants

Who can initiate a citizen science project? Anybody! All that is required is (at least) one person with an idea, a certain interest in research and enough motivation to promote the idea. This individual or group of individuals may be working as a scientist or be involved in civil society, working alone or as part of a larger team. The only prerequisite is that the idea has some scientific value. The following points must be considered when planning a large project:

- Roles and responsibilities: Who should participate in the project and how? What part do participants play and who is responsible for what activities? Having clearly defined roles makes the project transparent.
 - Clearly defined goals: What do you want to achieve with this project? It is important to define clear and concrete goals together with all participants at the beginning of the project. Having clear goals makes evaluation easier.
 - Forms of participation: How many people should be involved, and how can they contribute to the project? What kind of commitment is required? Is equipment or training needed for initiators or participants?
 - Clear research question: Careful consideration on the research objective in early stages prevents collection of unnecessary or unusable data.
 - Legal requirements: What legal requirements for data protection, communication and the involvement of individuals or groups of individuals should be considered? Potential legal issues vary by jurisdiction and need to be clarified with a legal expert.
 - Choice of methods: How will the data be collected, evaluated and published?
- Evaluation: What types of objectives should be reached and how should they be measured?

CS Projects – Global

- [Zooniverse](#)
- [SciStarter – SciStarter](#)
- [A Community for Naturalists · iNaturalist](#)
- [Citizen Science Projects | National Geographic Society](#)
- [Citizen Science | Science Mission Directorate \(nasa.gov\)](#)
- [CrowdHeritage](#)
- [Smithsonian Digital Volunteers \(si.edu\)](#)
- [DIGIVOL | Home \(ala.org.au\)](#)
- [Old Weather](#)
- [Whats on the menu? \(nypl.org\)](#)
- [Listening Experience Database](#)
- [Fjord Phyto | Polar citizen science project \(ucsd.edu\)](#)
- [Stall Catchers](#)
- [Photovoice Worldwide](#)
- [Globe at Night](#)
- [EU-Citizen.Science :: Projects](#)

CS projects – Baltics

Estonia

- [Looking for Cowslips](#)
- [eElurikkus](#) (e-biodiversity database)
- [War of Independence](#) (Co-creation initiative)
- [Talvine aialinnuvaatlus](#) (Winter garden bird watching)
- [Ajapaik](#) (putting historical pictures on a map)
- [The Es](#)
- [onian National Museum activity](#) - museum invites people to take part in supplement collections
- [Loodusvaatluse maraton](#) (BioBlitz)

Latvia

- [IESAISTIES.LV](#) (public participation in the creation of digital cultural heritage)
- ["Simtgades burtnieki"](#) (The Wizards of the Centenary)
- [garamantas.lv](#) (enhancing the digital content of the Archives of Latvian Folklore)
- [Zudusī Latvija](#) (old drawings, postcards and photos)
- [Dabas dati](#) (natural observations)
- [Mission – TOAD](#)
- [Archive of Violence](#) (documenting the history of different types of violence in Latvia and let victims safely tell their stories)
- [Latvijas Mikrobioma Projekts](#) (Latvian microbiome project)

Lithuania

- [OSDG](#) (open-aource approach to classify text data by Sustainable Development Goals - SDG)
- ["Bronės Pajiedaitės takais"](#) (On the trails of Bronė Pajiedaitė)
- [Rūšių ralis](#) (Species rally)
- [Amber](#)
- [Paukščiai prie mano namų](#) (Birds near my home)
- [Pažangūs modeliai, piliečių mokslas ir didieji duomenys tvariai vidaus vandenų maisto produkcijai ir ekosistemų paslaugoms](#) (advanced models, citizen science and big data for sustainable inland food production and ecosystem services)

How can you participate today?

...by sharing your opinion in LibOCS short survey!

Here is link to the survey:

<https://ieej.lv/libocsQ1>



References

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Thank you!



LibOCS website:

<https://www.libocs.ut.ee/>

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