

# Re-thinking Science Communication: Take-away Ideas for Citizen Science Initiatives

The relationship between science and society is evolving. Public and private institutions aim to be close to citizens in order to increase legitimacy, accountability and good governance. In parallel, science-informed decisions are also gaining momentum in advanced democracies.

These changes affect the working practices of scientists, policy makers, science communicators, journalists, and other practitioners. Such changes also impact how citizens relate to science and science communication.

## WHAT

### Citizen Science

Citizen engagement in science is a reality. People are involved as volunteers in the scientific process, commonly in data collection, but also in other phases, such as quality assurance, data analysis and interpretation, problem definition and the dissemination of results. The critical purpose of any citizen science project is to contribute to scientific research, but also empower citizens creating a collaborative effort between scientists and their community. It also promotes science literacy and critical thinking for an informed society, increases trust in science and contributes to defeating the fake news.

## HOW

### NEWSERA and the #CitSciComm Labs

The #CitSciComm Labs are the core activity of the NEWSERA project, aimed at unveiling the potential of citizen science projects as a communication mechanism for science and technology. The #CitSciComm Labs, composed of science communicators and data journalists, representatives of citizen science projects and their quadruplex-helix stakeholders, work on co-designing innovative strategies to better communicate. Each Lab is named after the addressed stakeholder and has local groups in Italy, Spain and Portugal.



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Citizen and society at large



Academic Scientists



Public sector and Policy makers



Industries and SMEs



Data and science journalists

# Academic scientists

## STAKEHOLDER

Researchers that work in universities, research centres, science and technology parks, learned societies, technology transfer offices, units of scientific cultures and other professional interfaces.



## The Challenges

### Lack of initiative and motivation for academic scientists

Understand what motivates scientists to work outside their routine research but also the barriers they face in doing so (e.g., pressure to publish, workload, lack of time, among other things).

### Lack of trust in citizen generated data

Citizen science can be as rigorous and trustworthy as “professional” science: promote trust among academic scientists. Improve data validation and data quality of citizen science projects (scientists need to have the evidence of data validation mechanisms).

### Lack of funding

Promote new ways of communicating to get more funding (consider social media as a potential way to boost financing and attention to the research activities).

### Lack of professionalization

Rethink organization culture and develop new talent at the interface of science and society. Provide training to academic scientists in citizen science matters.

## Take-Away Ideas

### 1. Involve researchers and academics

Present citizen science projects in academic fora (conferences, journals) beyond the citizen science “bubble”.

Make communities and platforms available and open as opportunities for researchers to improve their research. Allow scientists to formulate their own questions.

### 2. Identify champions within the scientific community

Have citizen science ambassadors within research institutions to promote citizen science.

Engage scientists in citizen science projects that help to amplify the results’ communication at every level.

### 3. Be sure to communicate the science within the project

Make sure to communicate the scientific features of citizen science projects to academic scientists. This way the scientific community will understand that citizen science is real science, and hence, can create a positive spill-over effect in the community.

Make clear the scientific aims of every citizen science project by presenting quantitative and qualitative benefits of implementing this methodology.

Be sure academic scientists recognize the scientific component of citizen science projects, by also training them in using this methodology.

### 4. Nurture coordination among researchers involved in similar citizen science initiatives

Acknowledge the diversity of the citizen science ecosystem and make use of existing experiences and resources.

Co-create citizen science projects along with researchers involving all scientific disciplines and research fields (including social sciences and humanities).

Find relevance to research and make the bridge between the local level and the researcher’s interest. In doing so, you make sure any research answers societal interests directly.

### 5. Promote Open Science

Sharing information might benefit scientists and their research. Following the European Commission recommendations, open science is a policy priority and the standard method of working under its research and innovation funding programmes. It improves the quality, efficiency, and responsiveness of any research.