

# 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

# Citizen and society at large



## STAKEHOLDER

Citizens who currently participate in citizen science projects, who are interested in science or society at large, or who may benefit from citizen science projects to address socio-environmental challenges.

## The Challenges

### Lack of industry

Citizen science projects might not be able to engage citizens that are outside concerned groups or amateurs already interested.

### Lack of understanding the real impact

It is not easy to have an idea about the impact of science communication across society. Thus, it is important to define ex post evaluation strategies to understand and then measure the effects of a project involving the citizens through specific participative methodologies. In pandemic times, focus groups could also be done online.

### Lack of long term engagement

Citizens' retention strategies: rethink how to maintain the engagement and motivation of citizens over a longer period of time.

## Take-Away Ideas

### 1. Foster Public Engagement

Public engagement makes the process of knowledge creation more open towards society.

Co-create the research project with citizens: make sure you understand what their concerns and needs are.

Intercept potential volunteers through initiatives on the territory:

- Team up with already existing groups, associations, aggregative centers (e.g. youth centers, scouts)
- Create exchange meetings where every citizen can intervene bringing their thematic needs and concerns.

### 2. Involve Citizens in doing science

Engage citizens as sensors, as data interpreters, up to active collaborators in identifying the research problem, setting up research questions and to even analyse data. In other words, engage and involve citizens in each step of scientific research.

Involve citizens with scientists. This alliance will develop into a mutual exchange and benefit for both.

Citizens can be involved directly in the dissemination of projects results in public events open to a broad audience: locally this may increase participation to follow-up events and further promote new volunteers enrolment.

### 3. Be flexible in difficult times

During COVID-19 times, make as much use as possible of social media to maintain the digital communication with citizens.

As many platforms for citizen science projects have shown, gamification approaches (namely to give rewards according to specific milestones reached) might be useful to ensure a high rate of participation and avoid turnovers.

### 4. Fight fake news

Citizens can be an evidence-informed network to fight against fake scientific information.