NEWSERA - Citizen Science as the new paradigm for Science Communication

Deliverable 6.5
Events 2

Revision: v1.0

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 873125

DELIVERABLE DETAILS

Due date: January 31st, 2021

Actual submission date: April 9th, 2021

Project start date: January 1st, 2020

Duration: 36 months

Work Package concerned: WP6

Concerned work package leader: Formicablu

Deliverable leader: Formicablu

Dissemination level:

PU: Public (must be available on the website)	☒
CO: Confidential, only for members of the consortium (including the Commission Services)	☐
Cl: Classified, as referred to in Commission Decision 2001/844/EC	☐

Authors:

Lisa Lazzarato (Formicablu).

Rosa Arias, Oriol Agulló and Isidora Fernández (Science for Change).

Revision history:

revision	date	Contributor	Description
v1.0	18.01.2021	Lisa Lazzarato (Formicablu)	First Draft
v1.0	19.03.2021	Oriol Agulló (Science for Change)	First revision
v1.0	09.04.2021	Rosa Arias, Isidora Fernández (Science for Change)	Final version and revision

STATEMENT OF ORIGINALITY

This deliverable contains original unpublished work except where clearly indicated otherwise.

Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

SUMMARY

NEWSERA is analysing science communication strategies addressed to quadruple helix stakeholders in citizen science projects across Europe. The overall aim of NEWSERA is to demonstrate the virtues of citizen science as an inclusive, broad and powerful science communication mechanism that can allow to increase trust in science communication and, in turn, in science at large, while opening up science and innovation to society, raising awareness and educating in science, and reducing the chances of incurring in fake news by promoting critical thinking.

This document presents the events attended and planned by the NEWSERA consortium to promote, disseminate and actively engage the project with different audiences **during its first year of activity (until M13)**.

The NEWSERA project has its core activities in the **#CitSciComm labs** addressed to five target audiences: the quadruple helix stakeholders (citizens and society at large, industry and SMEs, the scientific community, and the public sector and policy makers) and data and science journalists. The COVID-19 pandemic caused a delay in the beginning of these activities. A great effort has been made by the consortium in transposing the planned face-to-face activities into online ones, preserving the co-creation approach. An increased number of the pilot projects and the delocalization in the three NEWSERA countries were the most evident changes in the Labs original plan. The most prudential approach was adopted in developing the new #CitSciComm Labs plan, also considering the persistence of a high level of uncertainty due to COVID-19 crisis. The foreseen co-creation events for the first year of the project are therefore all planned as on-line events.

The new #CitSciComm scheme includes three rounds of workshops for each of the five Labs, planned to cover the entire duration of the project. The **first round of workshops of the NEWSERA #CitSciCom Lab** started in December 2020. In these workshops, *ad hoc* effective communication strategies for Citizen Science projects targeting quadruple helix stakeholders were co-created. Their implementation is foreseen immediately after the workshops, allowing for their evaluation.

The successful experience of the first Lab addressed to citizens was replicated in the **#CitSciCom Scientists Lab** (January 2021) and the **#CitSciCom Industries Lab** (January 2021, still ongoing at the time of writing this deliverable). Even though the co-creation methodology was common, a certain degree of flexibility was adopted for better tailor the Labs on the stakeholders' needs. Also differences between the Citizen science context in Italy, Portugal and Spain have been taken into account.

Additionally, during this period NEWSERA joined the **periodic meetings with sister projects belonging to SwafS-19 programme:** these regular online events offered the chance to connect, start to build collaborations and share common challenges and objectives. Other planned **external events,** in particular conferences, have been greatly affected by the COVID-19: only a few actually took place and were attended by NEWSERA partners.

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1. Acronyms

Acronym	Description
CitSciComm	Citizen Science Communication
CS	Citizen Science
D	Deliverable
FB	Formicablu
FC.ID	FCIENCIAS.ID Associação para a Investigação e Desenvolvimento de Ciências
FECYT	Spanish Foundation for Science and Technology
IBERCIVIS	Fundación Ibercivis
M	Month
SfC	Science for Change
SMEs	Small and medium-sized enterprises
UNIPD	Università degli Studi di Padova
WP	Work Package

2. Monthly Executive Board meetings (M3-M13)

Description of the periodic Executive Board (EB) meetings between the consortium partners

The Executive Board (EB) of the consortium, composed of at least one representative of each partner, as explained in D1.1, has been meeting online every first Thursday of each month, since M3 - after the Kick-off Meeting. An agenda of the meeting is shared in advance to be discussed and generally covers:

- executive actions to advance in the research project per WP
- dissemination and communication actions
- planning of upcoming deliverables
- administrative requirements or others

Extra meetings are organized according to the needs. The first months of the project were focused on dealing with the changes imposed by the COVID-19 pandemic. The uncertainty and gravity of the situation across Europe, required a complete format rethinking of the core activity of NEWSERA, the CitSciComm Labs. During the monthly meetings modifications to the original Labs scheme were discussed, together with priority actions and any necessary delays.

As a result, a document containing the foreseen reorganization of the project following the COVID-19 pandemic, specially in relation to the execution of the NEWSERA #CitSciComm Labs, was produced and shared with the Project Officer to inform and approve the proposed changes in the implementation and structure. The document is presented in the Annex (as defined in May 2020).

3. #CitSciComm Labs (M12-M13)

Presentation of the rationale of the NEWSERA #CitSciComm Labs

3.1 Introduction

COVID-19 pandemic, with its restriction on travelling and meeting, has affected and will probably affect the NEWSERA project for the most part of its duration. The consortium adopted the most prudential approach for the organization of its activities to ensure the achievement of the set objectives.

The changes respect the original plan involved a 6 months postponement of the starting date of the #CitSciComm Labs, the modification of the structure with a shift to virtual local meetings in the partners' countries (Spain, Portugal and Italy), instead of face-to-face centralized ones, and the adoption of a different format, allowing for co-creation using digital tools such as Miro or Padlet.

The changes were grounded also on the experience gathered during the co-creation sessions held at the Kick-off meeting (described in D6.1 Events 1).

3.1.1 The overall plan

The NEWSERA #CitSciComm Labs are five, as the stakeholders involved in the NEWSERA project: Citizens and society at large; Academic scientists; Industries and SMEs; Public sector and Policy makers; Data and science journalists.

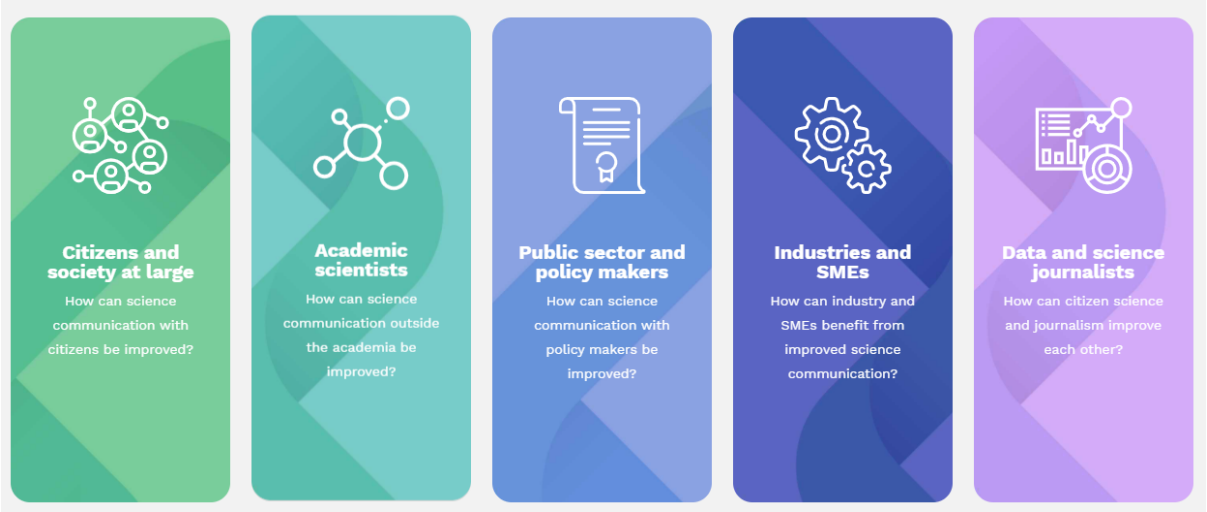
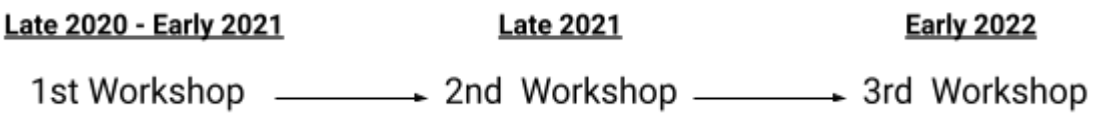


Figure 1. *The NEWSERA #CitSciComm Labs.*

Following the reorganization of the Labs due to the COVID-19 pandemic, three round of workshops are being organized online for each one of the Labs, with the following tempting schedule, and happening in a cascade fashion and in parallel in the three NEWSERA countries:



As it will be described in detail in D3.1, the NEWSERA #CitSciComm Labs methodology emcompasses the implementation of **three rounds of co-creation workshops** during the project life, with continuous evaluation between rounds, and the fifth Lab focused on data journalists happening in between rounds. In addition, CS projects representatives will be provided with some homework and continuous feedback in order to keep them on track and to attention as well, and to guarantee the implementation and the evaluation of the co-created science communication strategies. Each partner responsible for each Lab will take care of assuring feedback and support to help the projects implement the NEWSERA actions.

Each round of workshops is held in Spain, Portugal and Italy in the same week - the so-called **NEWSERA week**. In the week after, a common meeting to discuss the findings and to allow for mutual learning, with participants from the three countries, takes place in the so-called **NEWSERA Friday**.

The objectives of each workshop are different but the same among Labs. The rounds of workshops were designed in a cascade fashion, starting with one stakeholder group (citizens) and continuing with the rest of stakeholders from the quadruple helix, with a difference of around 2-3 weeks between each Lab.

All meetings are held online (at least until the health emergency from COVID-19 imposes limitations) and in the local languages, except the mutual learning meeting on the NEWSERA Friday which is held in English.

3.1.2 The participants

The #CitSciComm Labs focus on finding strategies to improve science communication of Citizen Science projects, to make them able to better reach and engage their stakeholders. The stakeholders are invited to the Labs and involved in the co-creation process. Each Lab includes a small group of participants:

- 3/4 citizen science practitioners with a common stakeholder target
- 3/4 stakeholders (e.g. citizens in the #CitSciComm Labs - Citizen and society at large, scientists in the #CitSciComm Labs - Academic scientists, etc.)
- 3/4 science communicators
- 3/4 people from the NEWSERA team as facilitators

The citizen science practitioners are representatives of Citizen Science projects, which have been selected through a survey[1] conducted in the first months of the project (the survey and its results will be presented in D2.1 “Portrait of citizen science communication strategies in EU citizen science projects”).

[1] https://newsera2020.eu/2020/06/08/survey/

The Sounding Board members and stakeholders representatives differ according to the #CitSciComm Labs, as it will be extensively explained in D1.3 “Periodic report on interactions with Sounding Board members 1”:

- Citizens and society at large (managed by UNIPD): engagement experts + citizen representatives
- Academic scientists (managed by FC.ID): communication experts working at research centers + career scientists working in similar research fields as the CS projects
- Public sector and policy makers (managed by FECYT): communication experts specialised in policy makers + policy makers at different levels, according to the target level of governance of the CS projects involved
- Industries and SMEs (managed by SfC): business model experts + industry and SMEs representatives
- Data and science journalists (managed by Formicablu): data journalists + CS practitioners

In the following sections, the **concept notes** created for each one of the Labs, including the main objectives, challenges and barriers to communication pre-identified to engage the target stakeholder group in citizen science projects, are presented. The dynamics used for each one of the Labs and preliminary findings, as well as projects selected to participate, will be presented in detail in D3.1 “Description of #CitSciComm Labs”, and the results obtained in the first round of workshops will be further elaborated in D3.2 “Co-designed Innovative Strategies for Citizen Science Communication” and D3.3 “Co-designed Innovative Strategies for Citizen Science Journalism”.

At the time of presentation of this Deliverable, the first round of workshops addressed to citizens and society at large, and to academic scientists, already took place, while the Labs corresponding to Industries and SMEs and policy makers are expected to happen in February 2021.

3.2 #CitSciComm Lab - Citizens and society at large

Objectives: NEWSERA wants to seize the opportunities and manage the challenges posed by the interaction between citizen science project representatives and society at large. The NEWSERA Citizens and society at large #CitSciComm Lab's final aim is to propose innovative communication strategies to better engage citizen science projects and to fruitfully have an impact on local contexts and other citizens.

Overall description of the Lab:

By definition, Citizen Science projects are oriented towards the participation of citizens. At least in theory, engagement into scientific research offers citizens a direct way to be connected to knowledge construction processes and scientific research. Indeed, engaging citizens into research activities presumes for them an active involvement with scientists that should develop into a mutual exchange and

benefit. As a principle, this may apply in multiple stages of the research process. Being CS promoted as a way to foster public engagement, processes of knowledge creation would be more open towards societal needs. This can be obtained by engaging citizens as sensors, as data interpreters, up to active collaborators in identifying the research problem, setting up research questions and to even analyse data. For scientists, this would correspond to the chance of collecting data with a higher granularity, in contexts where otherwise it would not be possible to get them; scientists could benefit from potential input of not-scientists but that can be committed anyway to a specific issue as well.

Such a way of advancing in scientific research is encouraged through explicit requests made by many funding schemes about involvement of citizens; in a sense, public engagement, and coherently CS, are proceduralized within funding proposals and, on the other side, it has become an appealing perspective. The issue here is that CS could become almost a fancy buzz word but not always able to comply with the principle of mutual benefit for both sides. For instance, CS projects might not be able to engage citizens that are outside a clique of concerned groups or amateurs already interested in a specific scientific issue. Furthermore, although this might guarantee a high level of commitment, it may fail in promoting a large participation. Besides this, the impact of CS projects is often unclear; although the outcomes are heavily theorized and unanimously considered positive, it is not easy to have an idea about the impact across society. Similarly, since there is no specific understanding about actual effects of communicative efforts nor about the effectiveness of any communication strategy oriented towards society at large. Thus it is difficult to establish if a project is successful or not in having an impact that goes beyond data collection and analysis, as improving trust and positive perception about scientific activities.

Therefore, the relevance of public communication in CS projects can be sketched up as follows:

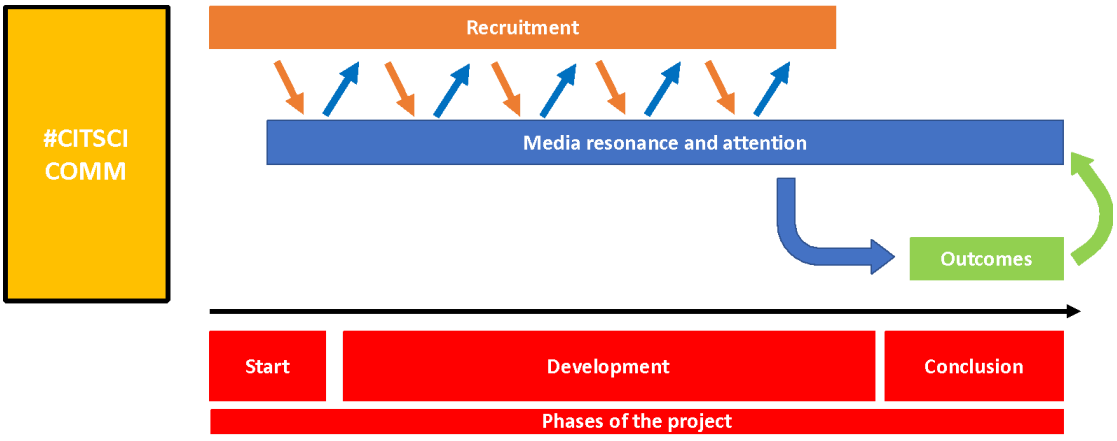


Figure 2. *The relevance of public communication in citizen science projects.*

In synthesis we can point out the capability of being inclusive in recruitment (i.e. engagement) and the resonance CS projects may have as the two main issues related to CS communication. They flow along the three key moments that mark the life of a CS project, namely: the start of the project, its ongoing activity and the conclusion.

They will be both at the core of this Lab: first is about the opportunity to foster engagement through inclusive recruitment that may guarantee a more active participation of citizens; second is the impact on society through communication directed towards society at large and the empowerment of citizen scientists themselves as ambassadors of an alternative and potentially proficient way of contributing to a more open knowledge production.

In the "NEWSERA Citizens and society at large #CitSciComm Lab" series of workshops we will explore the state of the art of the communication of citizen science projects, facilitate discussions with society at large beyond concerned groups, understand where are the gaps when it comes to communications among citizen science projects and society and will draft recommendations on how to better communicate with this primary stakeholder.

Participants: The Lab will be composed by:

- **CS projects representatives**: 3-4 citizen science practitioners for each of the NEWSERA pilots per country;
- **Stakeholder representatives**: 3 representatives per country that should reflect main societal stakeholders, such as a citizen or community champion already participating in the projects; a representative of an NGOs already aware of what citizen science is; an educator/school teacher; a person not involved at all in Citizen Science.
- **Sounding Board member**: at least 1 science communicator expert per country that will provide his/her expertise.
- **NEWSERA Lab Leaders** per country.

3.3 #CitSciComm Lab - Academic scientists

Overall description of the Lab:

This Lab will be particularly challenging since it will address two problems:

- **The difficulty CS projects have in reaching (and being recognised by) academic scientists**. Challenges and issues related to the communication strategies in CS projects when addressing academic scientists: citizen science is still seen by some scientists as another science communication activity rather than as a way of co-producing scientific outputs or a way to engage broader audiences in approaching the scientific method.
- **The lack of interest or knowledge of the potential of citizen science activities as a way to communicate science in any area of knowledge**. Challenges and issues related to the communication strategies of academic scientists (focusing on their interaction with CS projects): academic scientists' disbelief or lack of information, lack of interest and knowledge of citizen science methods and results, makes it unlikely they acknowledge CS as a way to produce and communicate science.

In this lab, academic scientists are expected to play an active role in providing inputs that help CS projects develop effective communication strategies directed at researchers. At the same time, CS projects will establish direct dialogues with stakeholders, and show how academic scientists can benefit from CS practices. Both objectives will be reached by promoting dialogue while avoiding top-down approaches. This strategy involves mutual learning and aims to establish synergies between CS projects and academic scientists.

Objectives:

To work on both challenges, we propose a strategy that helps, more generally, to build trust between CS project participants and academic scientists by creating a dialogue to improve engagement, effectiveness and trust in science communication and citizen science.

More specifically the lab aims to help:

1) CS projects to engage with academic scientists (also enlarging their networks), by promoting joint efforts that improve CS projects' communication strategies, and show how CS methods and results can be used by the scientific community.

2) academic scientists to learn about CS (practices, motivation, values), build trust in its practices and on the data it generates (i.e. CS as a valid way to produce scientific results); and to increase academic scientists' interest in conducting engagement activities themselves by showing them that CS is (also) a tool for public engagement with science.

3) to engage both groups (CS project and academic scientists) in a two-way learning process towards developing common projects that establish synergies to improve research activities and teaching, and increase leadership and management skills, as well as help each other in obtaining funding.

Participants: The Lab will be composed by:

- **CS projects representatives**: 3-4 citizen science practitioners for each of the NEWSERA pilots per country;
- **Stakeholder representatives**: 3 representatives per country that should reflect academic scientists belonging to academic institutions (i.e. universities, research centres/institutes), from different research areas and career stages, considering gender balance. Ideally, half of the involved scientists will be already familiar with CS practices (but are not responsible for CS projects) and the other half are not involved in CS nor SciComm practices. All of them should work in similar topics/areas of research of the CS projects selected for this Lab.
- **Sounding Board member**: at least 1 science communicator expert per country that will provide his/her expertise.
- **NEWSERA Lab Leaders** per country.

3.4 #CitSciComm Lab - Industries and SMEs

Overall description of the Lab: This Lab is particularly challenging since it addresses a heterogeneous target group, from several domains and scales, different purposes, resources, needs and values.

Objectives: The main objective of the Lab is to come to an understanding about the common ground that represent the industries and SMEs perspective:

- to attract industries and SMEs to get involved in citizen science projects.
- to promote new business models involving industries and SMEs as an opportunity for the sustainability of citizen science projects.
- to increase the level of industry's and SMEs' social corporate responsibility through improved science communication and increased transparency through the active participation of society into research.
- to promote social innovations and increase competitiveness of industries and SMEs and, at the same time, of citizen science projects.
- to show the benefits of increasing transparency and adopting bottom-up approaches.
- to include citizens' needs and concerns in the industrial innovation processes.

To work on those challenges, a win-win strategy is established:

- For CS practitioners:
    - to co-create innovative communication strategies needed to engage industries and SMEs into their projects.
    - to define win-win participation mechanisms between industries and SMEs and CS projects.
- For Industries and SMEs:
    - to give examples and strategies for industries and SMEs to increase their corporate social responsibility through citizen science projects.
    - to define channels and methodologies so that industries and SMEs can initiate social innovation processes based on co-creation and citizen science based on societal needs.

Participants: The Lab will be composed by:

- **CS projects representatives**: 3-4 citizen science practitioners for each of the NEWSERA pilots per country;
- **Stakeholder representatives**: 3 representatives per country that should reflect industry and SME representatives of the interest of the CS projects.
- **Sounding Board member**: at least 1 science communicator expert per country that will provide his/her expertise, specifically an expert in social innovation or innovative business models to promote the exploitation of CS projects and contribute to their sustainability.
- **NEWSERA Lab Leaders** per country.

3.5 #CitSciComm Lab -Public sector and Policy makers

Objectives: NEWSERA wants to seize the opportunities and manage the challenges posed by the interaction between citizen science project representatives and policymakers and public sector officials. The Public Sector and Policymakers Lab final aim is to propose innovative communication strategies to better engage citizen science projects with policymakers and public sector officials.

Overall description of the Lab:

Citizen science projects engagement in policymaking offers an effective way to connect citizens, scientists and policymakers. In particular, the engagement with policymakers and public sector professionals can become crucial for the projects to have a bigger impact, inform public policies and achieve tangible and long term societal impact. This communication may have different objectives, such as raising funds for the project, better understanding a public issue in order to design a citizen science project to address it, establishing a collaboration to better engage citizens, or influencing policymaking by means of presenting scientific evidence to policymakers, among others.

Nowadays, public institutions aim to be close to citizens in order to increase legitimacy, accountability and good governance. Additionally, citizens demand to be more involved in the policymaking process as a way to increase democratic participation. Lastly, evidence-based policymaking is also gaining momentum in advanced democracies. In this regard, policymakers are being more open to engage with citizen science projects since citizens' inputs can offer an irreplaceable understanding of the problems and potential solutions. In particular, citizen science projects may be able to provide evidence for policymaking, and generate valid ideas for new policies or public services. However, this communication presents a number of challenges and it often does not happen in a smooth way. Building trust among citizens and institutions is still a big challenge.

In the “NEWSERA Policymakers #CitSciComm Lab” series of workshops we will explore the state of the art of the communication of citizen science projects, facilitate discussions with policymakers and public sectors professionals, understand where are the gaps when it comes to communications among citizen science projects and policymakers and will issue recommendations on how to better communicate with this key stakeholder. The Lab will identify similarities, differences and links across different citizen science projects. Understanding policymakers needs and work will be basic in order to define better communication strategies. The emphasis will be placed on both strengthening communication strategies and designing joint practical actions for citizen science projects. The ultimate aim being to help scientific results coming from citizen science projects having an impact on the work of policymakers. Through co-creative processes, a fluent communication between different policymakers and citizen science projects representatives will be facilitated.

Participants: The Lab will be composed by:

- **CS projects representatives**: 3-4 citizen science practitioners for each of the NEWSERA pilots per country;
- **Stakeholder representatives**: 3 representatives per country which are policymakers, either familiar or not familiar with CS practices, at the level of governance that is relevant for the CS project participating in the Lab (e.g. local, regional, national or European), according to the project objectives.
- **Sounding Board member**: at least 1 science communicator expert per country that will provide his/her expertise.
- **NEWSERA Lab Leaders** per country.

3.6 #CitSciComm Lab - Data and science journalists

Overall description of the Lab:

Citizen science projects represent one of the best examples of collaborative data collection efforts. Citizens involved in such projects become important data generators and can play more than a key role when it comes to science information and education. Citizen scientists, as a matter of fact, investigate questions that are of public interest, whether on a broad or hyperlocal dimension. They tend to be more educated in that scientific area than the average citizen is, and they are strongly motivated in sharing their knowledge with other stakeholders as well as with educators and communicators to make their findings available to their community at large.

By ways of using digital tools in the current innovative infosphere, citizen scientists can indeed become the prime source of information on specific issues that they might have investigated in depth. This valuable new knowledge can be enhanced and empowered by using tools and practices that are typical of data journalism, which specifically makes use of data to build stories that have a public impact.

Data journalism is a quite recent practice that has been developed in the last decade thanks on one side to the possibility to access data of interest in the form of open data and open science, and on the other side to the ability to interrogate those data, finding new angles to tell a story of even shaping a completely new story that it would have been impossible to tell without those data.

With the encounter between citizen science and data journalism two different outcomes can be foreseen: on one side, data generated within the citizen science projects can be a valuable source of original information that can find its proper space and relevance in the media and become, through them, a public story; in other words, the impact of the project can be stronger and generate a higher potential to engage with stakeholders that might be needed to reach the project goals and objectives.

On the other side, citizen scientists can use the methodologies and practices of data journalism to enhance their ability to use the data they produce and communicate them to their communities of interest.

Journalism can also play a role to support and promote citizen science as a practice that will gain more and more public interest and will be recognized by all relevant societal stakeholders while reducing the gap between science and society at large.

Basic concept - why two instead of one approach

The "NEWSERA Data journalism #CitSciComm Lab" series of workshops will try to respond to two sets of needs that emerged during the Kick Off Meeting exploratory workshops, as described in D6.1.

Journalists highlighted three main needs and criteria for them to be interested, supportive and involved in citizen science projects.

- The first one is that the data need to yield a story: journalists report on stories that are considered newsworthy, therefore they will be interested in collaborating with citizen scientists when a relevant story can come out.
- They also need to be granted independence: journalists cannot be considered activists, they do not follow a specific organization agenda and their role needs to be, if not fully impartial, at least independent and not embedded within any specific local/national movement.
- Third, journalists who want to use data in their reporting, whether as a source of information or as the result of a collaborative effort, need to be sure about the quality of the data, the methodology, and the rights to use them. Consistency and a certain degree of substantial significance of the data are required to be able to use them as a story that can prove itself to be relevant for their audience.

On the other hand, citizen science practitioners might need to become more capable of using the data they collect and produce to communicate with their diverse audiences: whether it is other citizens or any of the other stakeholders, the ability to analyze, visualize, summarize and convey the stories around those data can become a very powerful tool to communicate their project even when they might not necessarily be newsworthy at a broad level. In other words, there might be very specific audiences that are potentially highly interested in those data and might find them very important to know even if they do not constitute a story of sufficient general interest to be distributed through the media. There are many innovative communication channels that can be used, but the ability to use the data requires a certain degree of knowledge both on the data management side and on the communicative one.

Thus, the NEWSERA Data journalism #CitSciComm Lab will try and respond to both these needs by taking two diverse routes:

- Co-creation workshops that will be focused on potential collaboration between citizen science projects that are of potential interest for the

media, where journalists and citizen scientists will work together to design a strategy and a practice leading to fruitful collaboration.
- Co-creation workshops for citizen scientists held by data journalists that will focus on strengthening the citizen scientists' ability to use their data and design a data-driven science communication plan for their project.

There will be two tracks based on the above assumptions.

- Track 1 - Citizen scientists and data journalists work together with the aim of producing media stories based on citizen science data.
- Track 2 - Data journalists are involved as trainers and mentors of citizen science projects to make them capable of producing their own set of data-driven stories.

Participants: The Lab will be composed by:

- **CS projects representatives**: At least
  - 2 citizen science practitioners per country from projects that potentially can be of media interest[2] (English is a requirement);
  - 2 citizen science practitioners per country from projects that might have an advantage from learning how to communicate their data;

- **Sounding Board members**:
  - Data Journalists: 2 per country
  - Data scientist[3]: at least 1
  - Visual journalist[4]: at least 1

- **NEWSERA Lab Leaders** per country.

[2] In the media environment, something is of media interest if you can write up a story that you think might have an audience interested in reading/listening/watching.
[3] Data scientists are the ones analysing the data and capable of interacting with journalists on the one hand to extract significant insights and stories, and with the projects on the other hand to provide a protocol to collect the data. Often in a project where scientists are already involved, they act as data scientists, although it is not always the case.
[4] Visual journalists are the ones creating data visualizations from data collected in an organized way.

4. External meeting and events (M3-M13)

Presentation of the meetings and events attended by NEWSERA partners and organized by other EU projects or organizations.

4.1 Periodic SwafS meetings

According to task T6.5. ("Networking with #SciComm, #CitSci and RRI projects for increased outreach") NEWSERA is pursuing the objective of creating and maintaining an active collaboration with other EU-funded running projects with topics in common.

In June 2020 (M6) members of WP1 and WP6 joined a conference call promoted by three SwafS projects of the same call (RETHINK, CONCISE and QUEST) and enlarged to TRESCA and ParCos. This first meeting was the occasion to know the other projects and to start exploring ways of collaboration. Two more projects joined in January 2021, the complete list is presented in Table 4.

Project	Duration	Title	Website
CONCISE	12/2018-01/2021	Communication role on perception and beliefs of EU Citizens about Science	https://concise-h2020.eu/
ENJOI	01/2021-12/2023	ENgagement and JOurnalism Innovation for Outstanding Open Science Communication	https://cordis.europa.eu/project/id/101006407
GlobalSCAPE	3/2021-02/2023	Global science communication and perception	https://cordis.europa.eu/project/id/101006436
NEWSERA	01/2020-31/2022	Citizen science as the new paradigm for science communication	https://newsera2020.eu/
ParCos	01/2020-31/2022	Participatory communication of science	https://parcos-project.eu/
RETHINK	01/2019-12/2021		https://www.rethinkscicomm.eu/
QUEST	02/2019-7/2021	Quality and effectiveness in science and technology communication	https://questproject.eu/
TRESCA	01/2020-4/2022	Trustworthy, reliable and engaging scientific communication approaches	https://trescaproject.eu/

Table 4. *List of SwafS-19 projects participating at common periodic meetings to facilitate exchange and mutual learning, as well as building on each others' results.*

First meeting: 16 June 2020

The meeting was organized online through Zoom platform and moderated by the RETHINK project. The aim of the one-hour call was to let the projects know each other and to start a conversation on possible collaboration, mutual learning and ways of maximizing the impacts of all the projects.

The agenda consisted of a first part dedicated to presentations and a second that leave space for discussion, that was centered on two questions:

- What can my project give to the other SwafS-19 projects?
- How can my project benefit from the others?

The brief presentations gave the opportunity to share the topics of interest of each project, and many similarities emerged (Table 5).

	Topics of interest
CONCISE	science communication, perception, social media, science communication training, complementary and alternative medicine, genetic modified organisms, climate change
NEWSERA	science communication, science and data journalism, co-creation, citizen science, engagement
ParCos	participatory science, engagement, data storytelling, science communication, science communication training
RETHINK	science communication, science communication training, RRI
QUEST	science communication, journalism, social media, museums, co-design, vaccines, climate change, artificial intelligence
TRESCA	science communication, trust, science communication training, journalism, misinformation, digital security, future of work, environmental health

Table 5. *SwafS-19 projects topics of interest as identified in June 2020.*

The discussion led to the following proposals:

1. Continue to meet on a regular basis
2. Share materials, such as reports, educational toolkits, digital tools
3. Offer reciprocal support on communication and dissemination through website and social media channels of the projects

Second meeting: 16 October 2020

The second conference call was structured as the first one and included a first part dedicated to updates from the projects and a second one for discussion. Several proposals emerged from the discussion.

RETHINK was conducting research activities on sensemaking, exploring how people are making sense of the COVID-19 pandemic. It was planning a webinar series around its outcomes, which might be of interest for the other projects and their partners. RETHINK also informed about the JCOM (Journal of Science Communication) special issue call for papers on COVID-19 and science communication, open until November 2020.

QUEST presented a web-based tool for general journalists, "JECT.AI", to help them write about science, and asked for journalists available for testing it. The project is in its final phase and has many other outputs to share: KPIs on quality science communication; state of the art of science communication and science communication training offer; a curriculum on science journalism. Other outputs were under development: handbook for museums focusing on academic writing; social media good practice guidelines; policy recommendations, toolkits. All outputs can be found on the QUEST website: https://questproject.eu/outputs/
The project asked support spreading the questionnaires on Policy & incentives for SciComm in Museums, Universities/Research Centers, Journalism: https://questproject.eu/questionnaire-policy-and-incentives-for-better-science-communication/.

CONCISE was also approaching the end of the project and has many outcomes to share, such as the results of five citizen consultations on the role that science communication plays on the origin of beliefs, perceptions and knowledge concerning scientific issues. The consultations were conducted in Lisbon (Portugal), Valencia (Spain), Vicenza (Italy), Trnava (Slovakia) and Lodz (Poland), with the participation of close to 500 citizens. Results are available on the project website (https://concise-h2020.eu/reports/) and YouTube channel (https://www.youtube.com/channel/UCknvIhikPEzwYpYNohNXM2g). CONCISE invited other projects to its final event, planned for the 18th of November 2020.

ParCos was conducting a systematic review on evaluation criteria and invited others to join this task. It also presented its next activities, focused on mapping the theoretical landscape on participatory approaches at a metalevel, in order to define a typology of different approaches, actors and factors. The aim is to reveal different dimensions, including at the level of ontology, epistemology, methodology, data, outcome, jargon, stakeholder involvement.

NEWSERA presented its survey to understand how science communication takes shape in citizen science projects. The survey served also to select citizen projects to involve in #CitSCiComm Labs activities, which all shifted to online formats. The survey was launched in June 2020 and received several answers from citizen science projects based in Spain, Portugal and Italy. It was extended to reach projects from more European countries and make a clearer portrait of the role of science communication in citizen science projects. NEWSERA asked the other meeting participants to share the invitation to compile the survey on their communication channel.

TRESCA focuses on traditional social sciences in research institutions and how they are communicated to the public. It carries on trending topic analysis and reports on incentives and disincentives. The project was conducting qualitative workshops on citizen evaluations of trustworthy information and quantitative surveys on how people evaluate information. It was also developing science communication videos with Kurzgesagt, an animation studio and design agency specialized in explanatory videos.

All the SwafS-19 projects expressed interest in sharing respective experiences in dealing with COVID-19 changes, respect to participatory events, meetings, shifting of methodologies to online formats.

Third meeting: 5 December 2020

The December meeting was centered on dealing with COVID-19 changes, after a brief update on research activities of the participating projects.

NEWSERA, RETHINK and CONCISE discussed the different (and complementary) nature of the three projects but failed to find research activities where they could collaborate, although collaboration with communication activities seems more obvious.

On dealing with COVID-19 changes they found common challenges:

- all actions moved to online formats
- online platforms could be an obstacle to some groups: older people, people with some impairments, etc. Would the results be solid and representative?
- slower involvement of people

An action to deal with these challenges could be for the projects to create shared documents of experiences, containing “dos and don'ts” and make them available for other projects too. It was underlined that adoption of the positive online experiences in the future is a real possibility, as to meet in person is not always necessary, being also more sustainable from an environmental and economical point of view.

The last part of the meeting was about communicating research outcomes. RETHINK presented its aim to organise a series of online webinars on opening up the project research to practitioners. They could be an opportunity to learn and gain skills which can be useful to build a more inclusive communication. The need to disseminate research outcomes in appropriate context and ways to reach the right target audience was also expressed.

The participants agreed on the possibility of combining online events together, particularly for the last part of 2021.

Fourth meeting: 20 January 2021

Two new SwafS-19 projects joined the meeting, ENJOI and GlobalSCAPE, and were briefly presented by the respective project coordinators. The importance of connections between the projects has been heavily emphasized.

Discussion on main COVID-19 related difficulties encountered by the projects, with sharing of experiences and recommendations from those that have already asked for a review, were shared. Apart from the difficulty of having people participating in online workshops, the difference between norms and approaches across various EU countries emerged.

Each project presented its research activity.

RETHINK had two more workshops left where practitioners will provide insights on how useful the project research results are and how they can be used. It is developing guidelines and best practices on science communication and has planned to reach out to people involved in training on science communication. In this respect, the sister SwafS-19 projects could be helpful in identifying trainers to enroll.

TRESCA will launch a survey and saw possible interactions with RETHINK in developing a MOOC (Massive Online Open Course).

QUEST toolkits were available online for different stakeholders: journalists, SM Managers, scientists, museum explainers. The journalism section developed modules for students. A co-design section was implemented. Policy recommendations were almost ready to be released.

NEWSERA was conducting a series of workshops on science communication in CS, #CitSciComm Labs, in different countries and involving external participants. The first workshops started to develop a co-creation action plan for policy makers and citizens. The main challenge was to create commitment for citizen science projects. But also defining indicators on how to measure effectiveness of the plan and develop a better network online, with all the challenges of the digital era.

ENJOI project coordinator mentioned the possibility of having a common repository for all projects' deliverables, especially the ones on policy recommendations.

4.2 Other meetings and events

Many of the events that NEWSERA partners had planned to attend in 2020 have been postponed or cancelled due to the COVID-19 crisis. One of the events successfully attended was the **ECSA (European Citizen Science Association) 2020 Conference,** entitled "Encounters in Citizen Science". Several partners attended the event, held online on September 6-10 (Figure 9).

The **European Citizen Science Association (ECSA) 2020 Conference – Encounters in Citizen Science** was held on September 6-10. Although the conference was originally to take place in Trieste (Italy), due to the ongoing COVID-19 pandemic it took place exclusively online, with about 400 participants and nearly 200 speakers.

Inspired by the history of Trieste as a city of scientific interactions and junctures, the ECSA 2020 Conference will focus on connections in science:

> between scientists and citizens; between East and West; between North and South; and between the different fields of science.

One of the key aims of the Conference was bring citizen science projects together in order to achieve the **Sustainable Development Goals**. During the weeks prior to the event, participants had the opportunity to collaboratively elaborate the "Declaration on citizen science and the SDGs", a commitment between scientific citizens, academics and politicians to advance the agenda of the SDGs according to their own possibilities.

Figure 9. *Screenshot of the news about ECSA conference published on the NEWSERA website (https://newsera2020.eu/2020/08/27/ecsa-2020-conference/)*

The NEWSERA project was presented at the Faculty of Science of the University of Lisbon during a session dedicated to Citizen Science and Science Communication[5], within the series "Communication Meetings in Science(s)". Cristina Luis (FC.ID) presented the project aim and activities as a starting point for a conversation with a naturalist involved in a CS project. CS as a best practice to break the barrier between scientists and non-scientist and its role in improving Science Communication were some of the discussed themes.

[5] https://ciencias.ulisboa.pt/pt/evento/17-11-2020/ciencia-cidada-e-comunicacao-de-ciencia

5. Planned upcoming events (M13 - M24)

Description and details of the meetings and events to be organised by the project consortium or to be attended by the NEWSERA partners from M13 to M24.

The list of planned events related to NEWSERA framework and presented in D6.1 (Events 1) is updated in the following table, considering the change on data associated to the coronavirus pandemic:

Name of the event	Location	Planned date	Status
#SciComPT2020 Congress	NONAGON, São Miguel, Lagoa, Azores.	May 7-8, 2020	Carried out online between May 7 and June 18.
ECSA Conference	Trieste, Italy	May 24-26, 2020	Carried out online between September 6 and 10, 2020
II International Forum of Citizen Science in Spain	Madrid, Spain	June 17-19 2020	Cancelled
VIII STS Italia Conference. Dis/Entangling Technoscience: vulnerability, responsibility and justice.	University of Trieste	June 18-20, 2020	Rescheduled for June 17-19, 2021
Communication Meetings in Science(s)	Faculty of Sciences, University of Lisbon	November 17, 2020	Carried out online

Table 6. *List of events foreseen up to M13 and attended by NEWSERA partners*

5.1 NEWSERA annual Consortium Meeting

The NEWSERA Consortium Meeting has been postponed as a consequence of delays due to COVID-19 pandemic and the priority assigned to reprogramming the #CitSciComm Labs activities. The next Consortium Meeting is planned, as an online meeting, for March-April 2021, when the first round of all Labs will have been concluded. The meeting is planned to be strategic to analyse the first actions of the Labs and propose additional actions to be carried out by the project partners

to follow up with the high number of CS projects involved in the Labs (16 in Spain, 12 in Portugal and 10 in Italy) between the rounds of Labs. In addition, complementary actions will be defined to advance and give compliance to specific objectives to which the work in the Labs is not specifically contributing, such as the fight against fake news or the recognition of CS and science communication in academic curricula.

5.2 #CitSciComm Labs

The Labs calendar presented in D6.1 (Events 1) for the first year of project was the following, considering face-to-face events as described in the DoA:

- **Launch event of the #CitSciComm Labs**: June 2020 in Brussels (Belgium).
- **First encounter of the #CitSciComm Labs**: December 2020 in Padova (Italy), in parallel to the NEWSERA consortium meeting.

The extensive modifications in the format of the Labs, which become online events localized in the three partner countries, required several months to be defined and discussed. The postponement of the first Lab caused a delay in the launch of the Labs, which did not happen "officially" in a joint event, but rather was discussed in the different countries at individual level with the CS Projects selected to participate and the Sounding Board members involved. However, the first round of workshops for the citizens Lab happened when it was foreseen (December 2020), although the rest of the labs suffered a cascade delay. The new calendar for the three rounds of workshops distributed along the entire duration of the project is presented in Table 7.

Stakeholder	1st Workshop	2nd Workshop	3rd Workshop	
Citizens and society at large	14-18 December 2020 (concluded)	September 2021	April 2022	Final event December 2022
Academic scientists	11-15 January 2021 (concluded)	October 2021	May 2022	
Industries and SMEs	25-29 January 2021 (Ongoing)	October - November 2021	May - June 2022	
Public sector and Policy makers	8-12 February 2021	November 2021	June 2022	
Data and science journalists	in between rounds, summer 2021	in between rounds, winter 2022	before/together with the final event	

Table 7. *Foreseen calendar of the #CitSciComm Labs workshops, subject to potential variations.*

5.3 External events

In the framework of the research being carried out within NEWSERA, several abstracts have been already accepted in scientific conferences, which have been rescheduled due to the COVID-19 crisis. The most relevant one was the organization of a specific session for STS Italia by the consortium members (UNIPD, FECYT and SfC) entitled "Responsible and inclusive citizen science. Comparing initiatives and assessing impacts". For the session, to be chaired by the NEWSERA partners, up to eight abstracts have been accepted for oral presentations.

Moreover, NEWSERA will be participating in several additional events during the second year of the project. The complete list is the following:

Name of the event	Location	Planned date	Status
CitSciVirtual. Local, Global, Connected	Online event https://www.citizenscience.org/events/conferences/citscivirtual/	May 2021	Proposal submitted, waiting for notification of proposal status by February 2021
VIII STS Italia Conference. Dis/Entangling Technoscience: vulnerability, responsibility and justice.	Online event hosted by the University of Trieste https://www.stsitaliaconf2020.com/	June 17-19, 2021	Organization of the session "Responsible and inclusive citizen science. Comparing initiatives and assessing impacts", to be chaired by UNIPD, FECYT and SfC
Science&You http://www.science-and-you.com/en/science-you-2021	Metz, France	November 15-19, 2021	Considering a proposal submission (Deadline February 19th 2021)

Table 8. *List of external events to be attended by the NEWSERA consortium as per M13.*

Annex: Changes associated to COVID-19 as foreseen in May 2020

UPDATES PER WP: General delay of up to three months for the ongoing WPs. Final date expected to be maintained at M36.

WP	WP GENERAL COMMENTS	ACTION	ASPECTS TO RESCHEDULE	MITIGATION PLAN
WP1	The crisis of the COVID-19 has slowed down the start of the NEWSERA project, but the fact that we are at the beginning is an advantage. It is possible to rethink the strategies to involve stakeholders in other ways than originally foreseen so as to adapt the project to the new reality without losing impact (or even increasing it).	**Next foreseen face-to-face Consortium Meeting**	Next foreseen face-to-face Consortium Meeting will be postponed to October, with the limitations that this may entail in terms of the co-creation workshops that are usually done with the partners to advance on the project actions. Also the second one will be postponed two months in order to promote coherent project management.	We are changing the strategy of the Labs and, apart from the Executive Board online monthly meetings, our #CitSciComm Labs will be more local and will involve more online dynamics following the recommendations from the EC (to reduce all international travels) and the current state of confinement in most of the countries in the Consortium. We are also increasing the online partner-to-partner meetings to deal with specific aspects, so as to be able to advance the work and mitigate the associated delays.
WP1		**Composition and engagement of Sounding Board**	The Sounding Board members were expected to make several trips throughout the project to be present at the #CitSciComm Labs.	Composition and engagement of the Sounding Board could be affected. We are defining a more local strategy to engage key actors from each Consortium country and to introduce online dynamics for allowing remote participation and for strengthening the relationships between them, thus promoting mutual learning.

WP1		**D1.1 & D1.2**	Content, not delivery dates.	We are rethinking about its structure and the whole project management and contingency management plan in order to reduce the COVID-19 crisis impacts, to adapt in a more remote project management and to prevent a possible repetition of similar situations in the future.
WP2	Delay in starting the implementation of the work plan	**Workplan document**	We had elaborated a work plan document to contact managers of citizen science projects and to create a portrait of the state of the art of the communication they are developing.	There are no changes apart from a slight delay in the start of the actions. We should now intensify internal meetings to decide on the NEWSERA survey and the communication strategy for contacting the managers of citizen science projects and engage them in the project.
WP3	We should reduce the number of international trips by participants and consortium members. Delay of 3 months for the Labs	**Rethink the strategy for the labs**	The functioning scheme of the labs and the participation of stakeholders and the Sounding Board.	The new proposal for the organization of the labs is to develop the consortium meetings as planned and then run the Labs virtually with the participants with a delay of 3 months to the planned dates. It is proposed to run the co-creation dynamics online with CS project representatives and with the members of the sounding board. The Labs will be decentralised and run in parallel in the 3 NEWSERA countries. The opportunity of increasing the number of pilot CS projects participating will be assessed.
WP4	Change dates without reducing the impact of the project.	**New dates for the Labs**	Postpone the first 2 labs for a few months.	The Consortium considered moving the launch event from June to November and also delaying for two months the second one in Padova. #CitSciComm Labs will be focused on local participants with remote experts from several

				countries in order to develop innovative ways of collaboration that can take place remotely and thus reduce the need for travelling.
WP5	Not much affected.	**It starts in M15.**		
WP6	We do not expect delays with deliverables (D6.2, D6.3), but we need a revision of the dissemination & communication strategy and plan	**T6.1 Dissemination & Communication Plan T6.4 Offline dissemination and communication activities**	The activities foreseen in presence, such as Labs or dissemination of the project through participation to events (workshops, conferences, etc.) will be, at least partially, reformulated. Tasks 6.1 and 6.4 will change accordingly. Also Task 6.4 (Networking with other projects) will be partially affected.	The tools for implementing the communication and dissemination plan will be reviewed in the light of the limitations imposed by the Covid-19 crisis, for example by prioritising web-based communication and the use of collaborative online tools. Appropriate training could be provided on remote collaborative tools and new platforms or software to run co-creation online workshops will be assessed.
WP7	Not much affected.	**D7.1**	Content, not delivery dates.	The deliverables will be delivered as intended. Online evaluation options will be favoured.
WP8	Not much affected.	**D8.1, 8.2 & 8.3**	Content, not delivery dates.	The deliverables will be delivered as intended. Online ethics documents will be favoured.