

European Citizen Science Association

# Annual Report 2021

**ecsa**

European  
Citizen Science  
Association

# Imprint

## ECSA ANNUAL REPORT 2021

Compiled by ECSA headquarter

### MANAGING DIRECTOR

Dorte Riemenschneider

### PROJECT OFFICERS

Ciara Davies, Carolina Doran, Claudia Fabó Cartas, François Jost, Marzia Mazzonetto, Claire Murray, Simone Rüfenacht, Gerhard Schleenstein, Andrea Troncoso, Mariana Vidal Merino, Tim Woods

### COMMUNICATIONS AND COMMUNITY MANAGERS

Simona Cerrato, Beatriz Noriega Ortega, Tim Woods

### STUDENT ASSISTANTS

Barbara Carneiro, Alicia Moreno Muñoz

Designed by Patricia Tudela Rosique

Photos by ECSA

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**Earth.** Photo: NASA by Unsplash  ►

**Woman.** Photo: Pawel Janiak by Unsplash



**Our vision is that all citizens in Europe are valued and empowered as actors in advancing knowledge and innovation, and thus supporting sustainable development.**

>>

We want to establish citizen science as a recognized, promoted and funded approach, one that fosters scientific literacy and the democratisation of science. Through this, we want to see an increase in the social relevance and sustainable impact of research, and a stronger evidence base for policy processes, in Europe.

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# Editorial

Dear readers,

“ In 2021, ECSA continued to navigate the uncertainties and challenges of a pandemic and its impact on the association as well as its community. Similar to 2020, much of the work and collaboration within the headquarters team and with the wider community took place online. ”

A feature of citizen science is to enable citizen scientists to look at the world around them through a scientific lens, to connect uniquely with their environment.

Understanding structures, spotting changes, identifying options and addressing solutions can be part of scientific work. Citizen science can therefore be helpful in addressing challenges and advocating for necessary change, be it a pandemic, or a global climate crisis. Citizen science has enormous potential to prepare and equip our societies for the profound transformations of the coming years.

Throughout 2021, ECSA has worked relentlessly to support the growth and development of citizen science across Europe. We are pleased to present the organisation's most important activities and achievements in the ECSA Annual Report 2021.

The **number of members** has increased by about 23% compared to the previous year. The number of organisational members rose by 24%, and the number of individual members rose by 21%. To maintain a vibrant and thriving community, we continuously seek to increase the geographic scope and diversity of our membership. This will involve, among other actions, focusing on regions with below-average membership numbers with specific actions to better respond to their needs and the realignment of our communication and activities to new fields and stakeholders.

Thanks to the increasing activities of the **working groups**, we have been able to significantly expand the strategic work in a wide range of areas. The working groups develop trainings and webinars in addition to new project ideas.



They exchange ideas and meet regularly for discussions. In 2021, two new working groups were established, covering current citizen science topics such as food and citizen science, and the European citizen science platform, bringing the total number of working groups to sixteen.

Internal and external **communication** has become more professional with the recruitment of new community and communication managers with specific expertise in this field. We conceptualise communication as a process of empowerment, capacity building, strengthening the sense of belonging and increasing influence on society and strategic stakeholders. In 2021, we focused on social media and our monthly newsletter. The ECSA communication channels, website, social networks and newsletters, recorded a substantial increase in activity.

In response to the limitations in travel and resulting cancellation of conferences and face-to-face workshops due to Covid-19, ECSA launched an online **workshop series** that was met with great interest and positive feedback. All webinars can be accessed through the [ECSA YouTube channel](#).

As with many non-profit organisations, **funds** are a key factor in securing ECSA's ability to continue working. In 2021, six new projects started under the Horizon2020 funding scheme. The association's budget has increased by 47% compared to 2020. It is made up of 83% external funding and 17% membership payments. The number of projects running during the year has doubled from six in the previous 6 to 12 in 2021. At the end of 2021, ten projects are ongoing.

Citizen science continues to play an increasingly urgent and relevant role in the 21st century. The United Nations Sustainable Development Goals have created an important opportunity and responsibility for everyone to engage and empower global citizens to save the world. I am proud to share our work with the readers through our annual report. I look forward to the future, confident that the ECSA community is bringing us closer to establishing citizen science as a standard approach in research, education, policy and other areas.

Yours,



**Dorte Riemenschneider**  
Managing Director

# Organisation

01.

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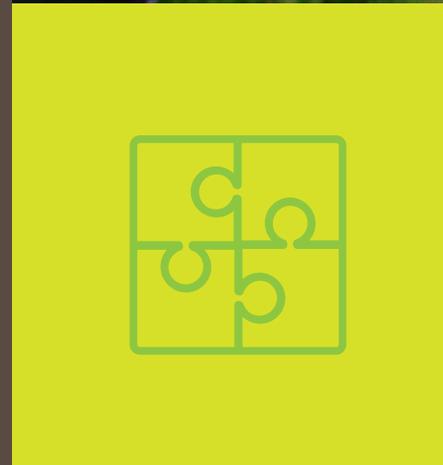
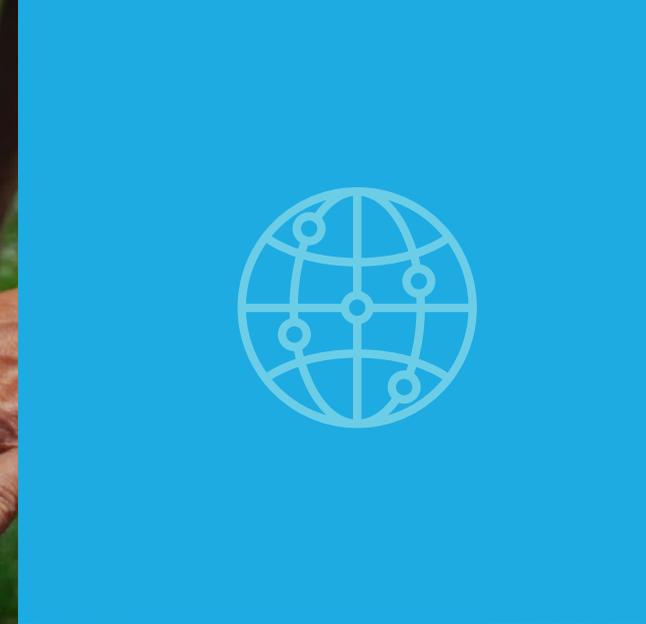
**ECSA's mission is to connect citizens and science; to promote sustainable development through citizen science; and to ensure that citizen science contributes to policy processes.**

# General Assembly

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**The General Assembly**, consisting of the ECSA members, is held annually and approves the budget for the coming financial year.

It receives the annual report and discharges the Board of Directors. The General Assembly elects the President, the Executive Committee and the Board of Directors. It appoints the Advisory Board, approves the working groups, determines the membership fees and decides to amend the Statutes.



**Hand.** Photo: Simona Cerrato  **Person in a river.** Photo: Balazs Busznyak by Unsplash  
Illustration: Patricia Tudela



# President & Executive board



▲ JOHANNES VOGEL

**President.** Director of the Museum für Naturkunde, Berlin, Germany, Leibniz Institute for Evolution and Biodiversity Science



▲ SUSANNE HECKER

Head of Science Programme Society and Nature, Museum für Naturkunde, Berlin, Germany



▲ ENRICO M. BALLI

Chief communication officer, EPOS-ERIC, Rome, Italy



The **General Assembly** in 2020 confirmed the **president** proposed by the Board for a period of six years. The president is invited to the board meetings in an advisory role or as the deciding vote in a tie situation.



The **ECSA General Assembly** appointed the **Executive Board** for a three-year period on 28 November 2020. The Executive Board appoints the managing director and annually calls for the General Assembly.



# Board of directors



▲ **Jaume Piera**  
ICM-CSIC, Spain



▲ **Rosa Arias**  
Science for Change,  
Barcelona, Spain



▲ **Martin Brocklehurst**  
KempleyGREEN  
Consultants, UK



▲ **Barbara Kieslinger**  
Zentrum für Soziale  
Innovation, Austria



▲ **Gitte Kragh**  
Citizen science  
Netværket /  
ScienceAtHome,  
Aarhus University,  
Denmark



▲ **Susanne Tönsmann**  
Beraterin Förderinstru-  
mente, Faculty Develop-  
ment, Prorektorat  
Forschung und Faculty  
Universität St.Gallen  
(HSG)



▲ **Svetlana Klessova**  
Treasurer, Director,  
Research and Innovation  
Partnerships, GAC Group



During the General Assembly on 28 November 2020 the Board of Directors and the Treasurer were elected for a three-year period.

# Advisory Board



## The Advisory Board

consists of up to 12 non ECSCA members. It advises ECSCA on strategic decisions, policy matters, and comments upon the annual report and ECSCA accounts.

 **Sven Schade**

Joint Research Centre of  
the European  
Commission

 **Dan Stanton**

Arizona State  
University

 **Renee Sieber**

McGill University

 **Henrietta L. Moore**

Institute for Global  
Prosperity / UCL

 **Darlene Cavalier**

Arizona State University  
/ SciStarter / Science  
Cheerleaders / ECAST

 **Julie Dirwimmer**

Quebec Office of the  
Chief Scientist

 **José Miguel Rubio**

European Environment  
Agency

 <https://ecsa.citizen-science.net/about-us/>

# Community

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**Members are at the heart of ECSA. They share a strong commitment to advancing citizen science, either by conducting citizen science projects or by supporting them through research, communication and funding.**

# Membership

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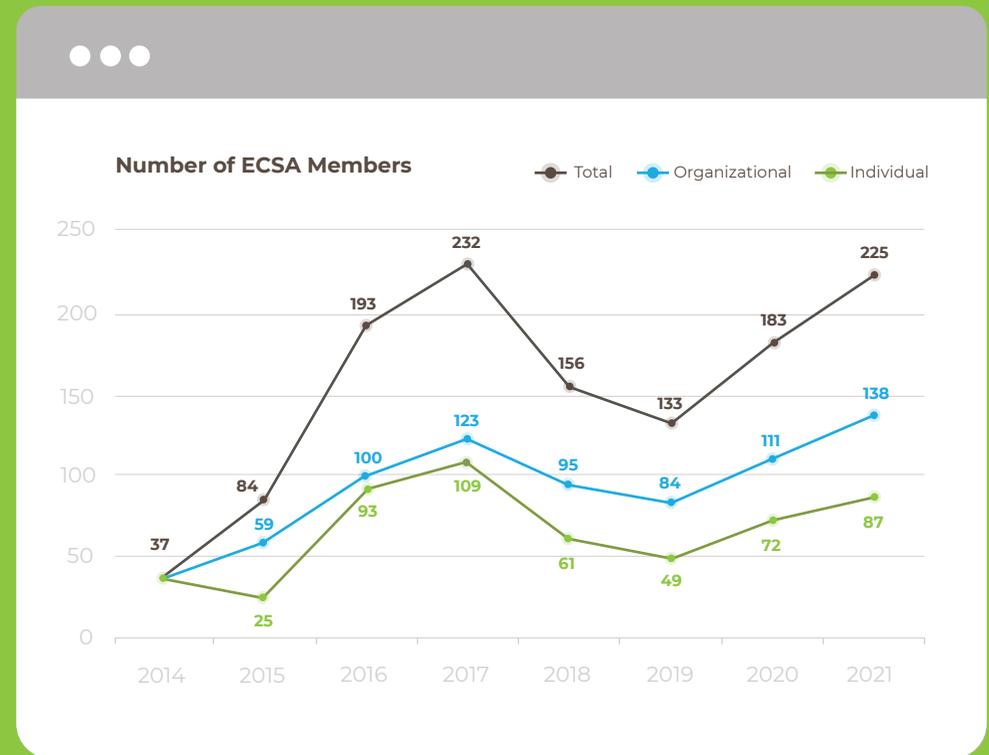
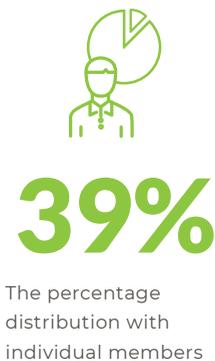
As of December 2021, ECSA has a total of 225 individual and organisational members from over 30 countries, across Europe and beyond (Figure 1).

Compared to the previous year, this is an increase in membership of 23%.

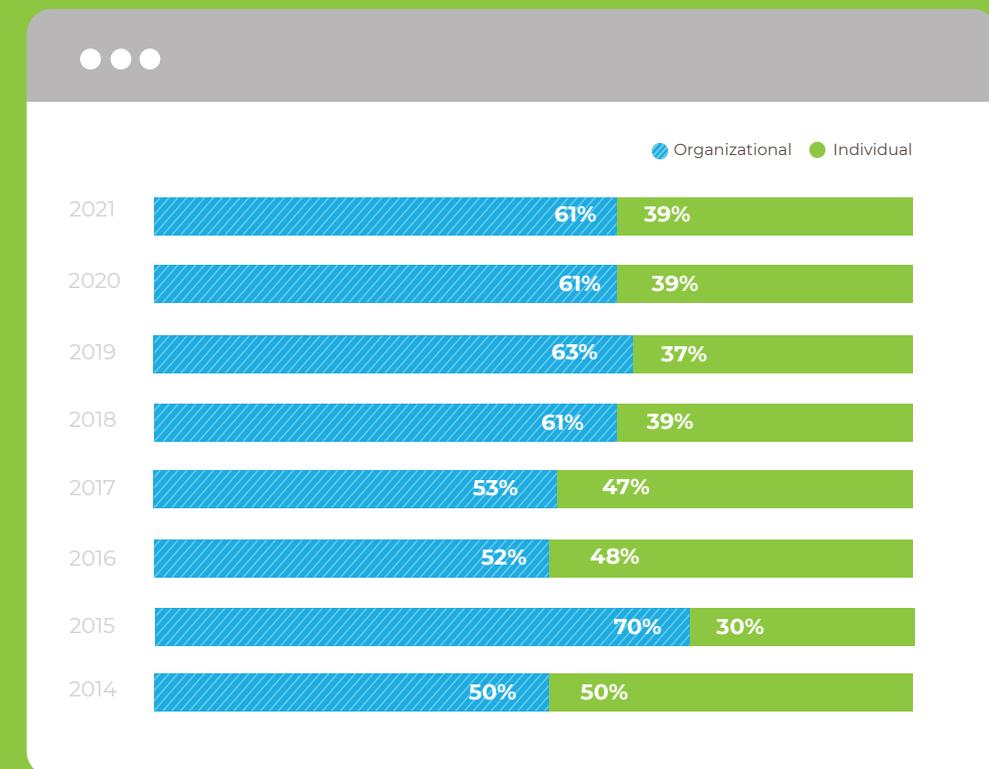
The number of organisational members increased by 27 and the number of individual members by 15.

The ratio of organisational and individual members has shifted only marginally in 2021. In fact, the percentage distribution remains the same, with 61% organisational and 39% individual members compared to the previous year (Figure 2).

→



▲ Figure 1. ECSA membership, 2014-2021



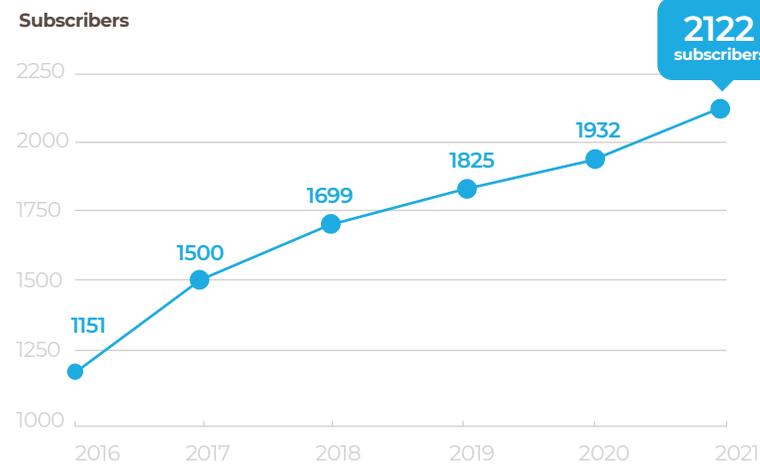
▲ Figure 2. Percentage distribution of individual and organisational members in 2014-2021

# Communication



ECSA sent out ten newsletters in 2021. At the beginning of the year, we started sending it bi-monthly, as we did in 2020. However, after surpassing 2,000 subscribers in April and with a growing number of events and announcements, we decided to make it a monthly newsletter. This allowed us to keep our community updated on a more regular basis.

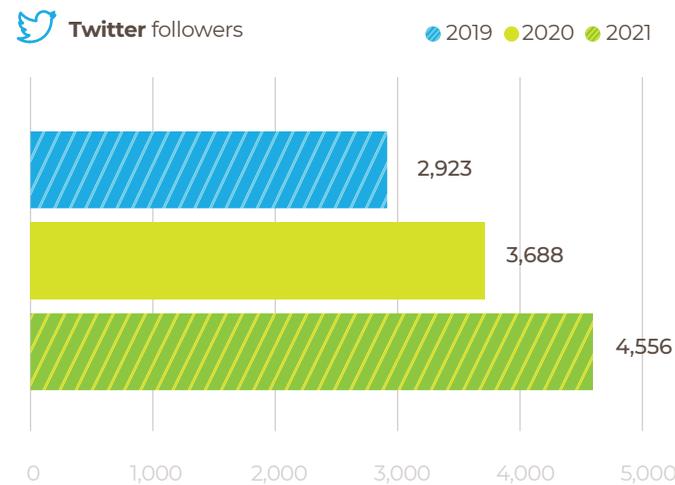
This year, subscribers rose by 7% (from 1,986 in January to 2,122 in December).



▲ Figure 3. ECSA newsletter subscribers, 2016-2021

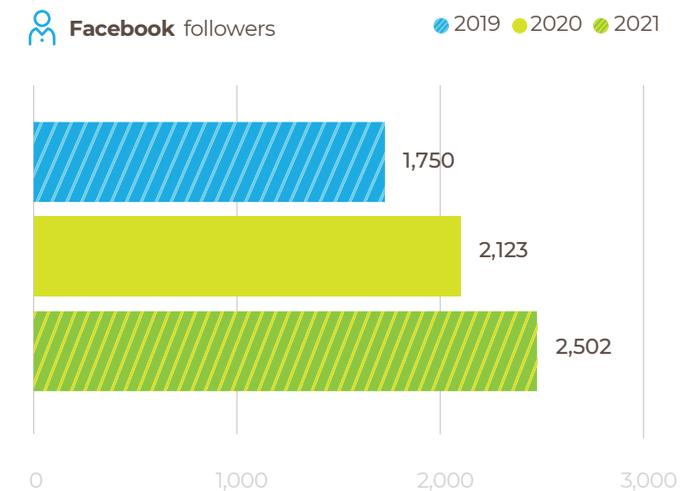
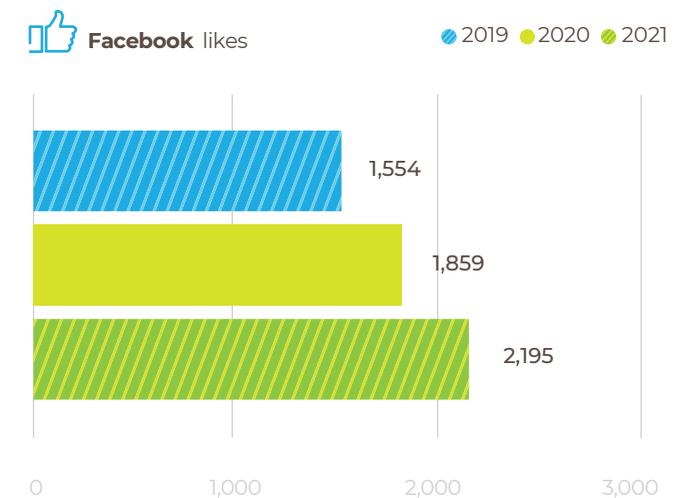
We saw continued growth in audience and engagement on our two main social media accounts in 2021. Twitter, where ECSA is most active, saw a 24% increase in followers (from 3,668 to 4,556) compared to last year and 56% compared to the number of followers from 2019.

This growth is also shown through regular engagement with our tweets, in terms of retweets, replies and likes. On Facebook, the number of people following ECSA's page increased by 18% (2,123 to 2,502) in the last year, as well as the number of 'likes', which also increased by 18% in 2021 (1,859 to 2,195).



▲ Source: Twitter (Data as of 4th of January 2022)

▲ Figure 4. Growth on Twitter since 2019



▲ Source: Facebook (Data as of 4th of January 2022)

▲ Figure 5. Growth on Facebook since 2019

# Report and proceedings ECSCA2020

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Encounters in citizen science, the third international ECSCA conference, aimed to bring together the citizen science community, citizen scientists, practitioners, researchers and policymakers, to share the latest knowledge and developments in the field. Spread across five days, the online conference saw 507 participants involved in 30 sessions, 64 posters, three keynote speeches, three side events, numerous Zoom chats and hundreds of tweets.

The conference report published in February 2021 aims to give a flavour of the [ECSCA 2020 conference](#).

The conference proceedings are published in a special issue in the [Journal of Science Communication](#), *Third International ECSCA Conference, Trieste 2020, Issue 06, 2021*.



**507**  
participants



**30**  
sessions



**64**  
posters



**3**  
keynote  
speeches

<https://ecsa.citizen-science.net/working-groups/conference/>



# Workshops

03.

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**Ongoing training is an essential element in a rapidly changing sector such as citizen science. The monthly workshops organized by ECSA give voice to every component of the association in a stimulating and inclusive environment.**

# SwafS Cluster

🕒 21 January 2021

This event was co-organised by the European Commission's Research Executive Agency (REA), Unit B5 – Spreading Excellence, Widening Participation, Science with and for Society, along with the following SwafS-funded projects: EU-Citizen.Science, CS Track, D-Noses, MICS, ACTION, CoAct, Cities Health, Crowd4SDG, CSI-COP, EnviroCitizen, REINFORCE, WeCount, InSPIRES and FRANCIS. The event was divided into two sessions. The first part focused on introducing the SwafS projects and highlighted collaboration between these projects. The second part aimed to develop recommendations based on good practices in citizen science for future projects in Horizon Europe. ECSA's project officer for EU-Citizen.Science, Marzia Mazzonetto, facilitated the virtual fishbowl, where project representatives were invited to join an open discussion about topics such as citizen engagement or the benefits and impacts of citizen science projects.

# How dominant white culture manifests in citizen science

🕒 27 January 2021

The **Natural History Museum** in London and the **Natural History Museum** of Los Angeles County chaired this workshop jointly. In this workshop, speakers and workshop participants worked together to identify how they could:

- Support citizen science practitioners to review their projects and programmes to see where they are perpetuating 'white supremacy culture'.
- Name instances of oppression.
- Work towards antidotes.

Documentation [▶ Recording](#)

# Lessons learned LandSense

🕒 3 February 2021

**LandSense**, a project on Citizen Observatory and Innovation Marketplace for Land Use and Land Cover Monitoring was a considerable success. After completion of the project in December 2020, the project team was interested in sharing lessons learnt, fascinating results and exciting experiences and insights from the project.

📅 Programme

- An overview of LandSense, Inian Moorthy.
- Natura Alert and monitoring biodiversity threats using citizen science, Sofia Capellan.
- Integrating crowdsourced data with authoritative data for LULC monitoring, Ana-Maria Olteanu-Raimond.
- Citizen science and personal data protection, Andreas Matheus.
- Rapid image classification to support earth observation monitoring frameworks, Linda See.

Documentation [▶ Slides](#)  
[▶ Recording](#)

# Introducing Cos4Cloud

🕒 24 February 2021

The **Cos4Cloud** project is developing **twelve technological services** to improve citizen observatories by helping them to increase the quantity and the quality of observations. The **Cos4Cloud** team shared details on the project's progress.

📅 Programme

- **What is Cos4Cloud?**, Karen Soacha and Jaume Piera.
- **Two of Cos4Cloud's services**, Alexis Joly and Santiago Martínez de la Riva.
- **Concluding**, Ángela Justamante and Sonia Liñán.

Documentation [▶ Recording](#)

# Monitoring groundwater in Limpopo Province through citizen science

🕒 2 March 2021

This webinar presented a citizen science project based in the Hout Catchment, Limpopo Province, one of the poorest provinces in South Africa. Citizen scientists capture data on groundwater levels and rainfall, putting it onto a smartphone app from where it is then uploaded. The Department of Water and Sanitation, and others, who are otherwise unable to access groundwater information in remote wells have access to this information. Jaqui Goldin, an anthropologist from the University of the Western Cape, explained the approach used in the project, especially highlighting how it built trust with the communities collecting the data.

## Documentation

- ▶ Slides
- ▶ Recording

# Lessons learned WeObserve

🕒 30 March 2021

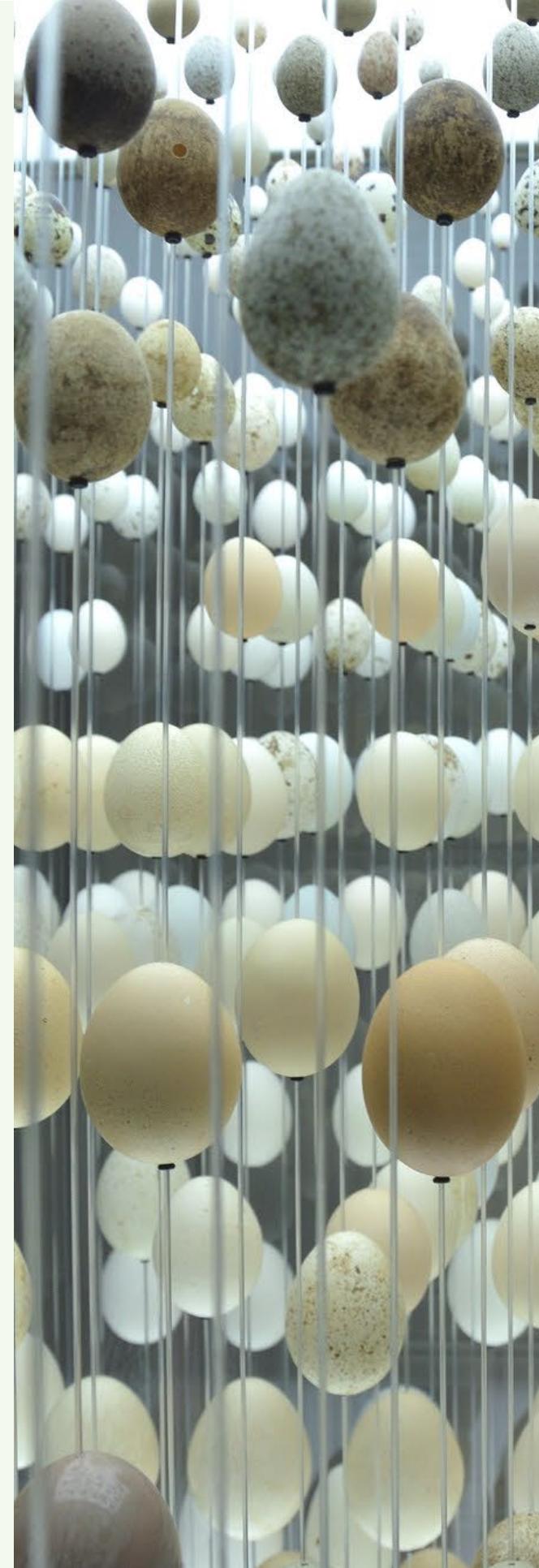
The **WeObserve** project tackled three key challenges that citizens observatories face: awareness, acceptability and sustainability. The mission of WeObserve was to create a sustainable ecosystem of citizen observatories that can systematically address these identified challenges and help move citizen science into the mainstream. This webinar introduced the project and celebrated some of the key outcomes and results.

## 📅 Programme

- ➔ In a nutshell, Gerid Hager (IIASA).
- ➔ Communities of practice: how to do CoPs and some reflections, Uta Wehn (IHE Delft), Joan Maso (CREAF) and Dilek Fraisl (IIASA).
- ➔ Accelerating the uptake of citizen observatories through MOOCs and open data challenges, Mel Woods (University of Dundee).
- ➔ Data interoperability and standardisation, Joan Maso (CREAF) and Valantis Tsiakos (ICCS).

## Documentation

- ▶ Recording



# Diversity and inclusiveness in citizen science

🕒 7 April 2021

Participation, citizen engagements, democratisation and governance in science and technology are critical assets to act on upcoming challenges and have the potential to mitigate inequalities in today's society.

Inspired by feedback from conference attendees, voices from the community and the natural dedication of ECSA headquarters to this topic, we decided to engage in the conversation. ECSA invited to a series of workshops on Diversity and Inclusiveness in citizen science together with, co-organized by the Living Knowledge Network, the ECSA working group on Empowerment, Inclusiveness and Equity and the EU-funded ECSA projects **D-NOSES** and **Cos4Cloud**. The workshops were deliberately kept open regarding structure and aims, to allow for an open discussion relevant to the participants. This series will continue over the coming years, as new themes and issues arise.



◀  **The variety in nature.** Photo: Simona Cerrato

# Inclusivity in citizen science

🕒 2 June 2021

**Kylo Thomas** (Making Spaces Project) discussed (re)imagining values of modern makerspaces such as sharing and sustainability, as well as accountability and abolition by project partners, the importance of designing with and for everyone, and the necessity of making spaces feel safe for all participants.

**Judy Ling Wong** (Honorary President, Black Environmental Network) discussed the diversity of knowledge held by individuals and communities outside of traditional citizen science communities, the role media has to play in presenting existing diversity in citizen science, and the importance of creating enjoyable experiences for potential participants.

**Monica Ramirez-Andreotta** (Project Harvest) discussed reaching underserved communities, the importance of bi-directional open communication and participatory design, addressing existing problems as participant motivation, and maintaining ongoing relationships with participants that respect their time, resources and input.

# New citizen science projects in 2021

🕒 26 May 2021

The webinar highlighted new citizen science projects starting in 2021, with short talks from three early career researchers: Famke Mölenberg (Erasmus MC, Netherlands) for the SEEDS project, Cristina Zaga (University of Twente, Netherlands) for the Incentive project, and Isabelle Freiling (University of Vienna, Austria) for the YouCount project.

Documentation

 Recording

Documentation

 Recording

# The nuts and bolts of citizen science

🕒 15-16, 19 and 21-22 April 2021

ECSA was invited by a Ukrainian organisation to deliver a workshop on the fundamentals of citizen science. With a lot of dedication from the ECSA headquarters team and with great support from the ECSA community, ECSA held a five day online workshop.

 Programme

ECSA project officers Andrea Troncoso, Mariana Vidal Merino and Claire Murray developed the 5-day virtual training titled The nuts and bolts of citizen science, which enabled ECSA to mentor a Ukrainian NGO and promote citizen science in Eastern Europe, broadening ECSA's impact and fulfilling its mission.

This workshop aimed to introduce the broad landscape of citizen science. To do so, we guided the participants through the main milestones in the history of citizen science, its theoretical foundations and provided a practical map of the institutions and projects that foster citizen science. We also supported the participants to develop their own ideas of a citizen science project, allowing them



▲  **Contains modified Copernicus Sentinel data (2019–20), processed by ESA and cloud layer from NASA**

to navigate the diverse paths and possibilities according to their motivations and own interests. This opportunity enabled participants to connect the theoretical 'how to do citizen science' with the practical elements, in order to demystify the process and share tips and experiences.

Thanks to our training, participants discovered new ways to engage with citizens and identify niches for possible citizen science projects or activities within their community. You can have a look at the [programme](#), and watch the talks delivered by ECSA staff and invited speakers on [this ECSA YouTube playlist](#).

In the coming years, ECSA will continue designing workshops to share best practices in the community, to highlight the importance of citizen science and encourage other communities to initiate their own citizen science projects.

# Young people in conservation and biodiversity citizen science

🕒 28 September 2021

The ECSC Working Group on Learning and Education co-organised a session with ECSC, exploring the important contributions of young people in conservation and biodiversity. The event was hosted by Claire Ramjan (University of Stirling), who also organised the event with Julia Lorke (IPN Kiel) and support from Claire Murray and Ciara Davies (ECSC).

**Andy Ruck** presented his research on young people's lived experience of the conservation and citizen science project Polli:Nation. Polli:Nation was a nationwide, school-linked conservation and citizen science project that took place in over 250 schools in the UK. Based on his research findings, Andy shared what he learned about the advantages of embedding citizen science within a conservation project, the challenges of making a project good science as well as good education, and the unplanned things that can happen

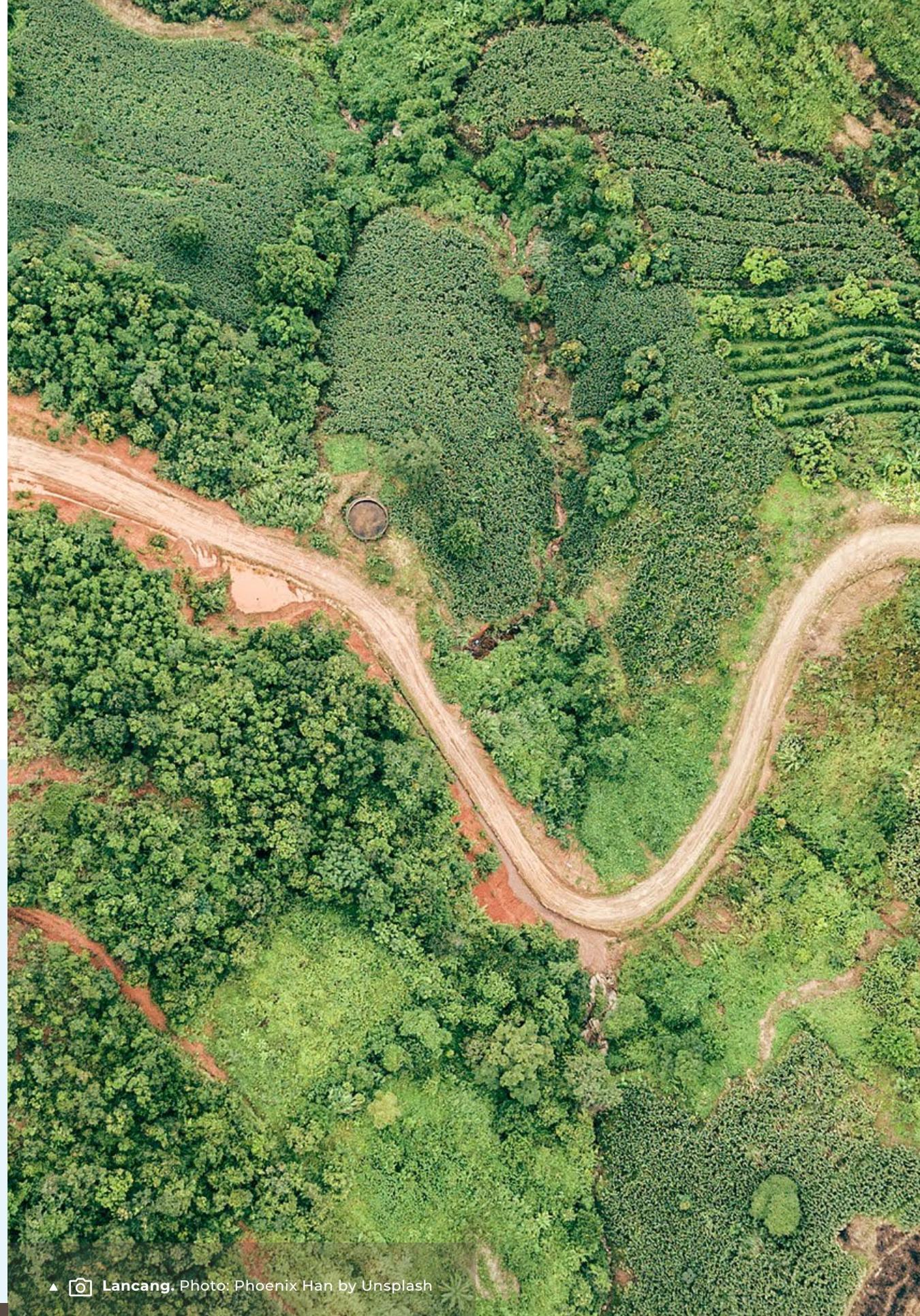
during citizen science projects that lead to different forms of learning.

**Julia Lorke** and **Lucy Robinson** presented insights on youth participation in museum-led citizen science programmes from the LEARN CitSci project. As this international research-practice partnership comes to an end, Lorke and Robinson reported their findings on youth participation in natural history museum-led BioBlitzes and introduced a new resource for the citizen science & learning community *Key Findings: Enhancing youth learning through Community & Citizen Science - A guide for practitioners*.

**Documentation**

📺 [Recording](#)

All recorded webinars and other events of interest can be found on the [ECSC YouTube channel](#).



04.

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Despite the restrictions due to the COVID-19 pandemic, ECSA has shared its vision, projects, and knowledge through many events thus increasing the impact of its activities and visibility.

# Events participation

## Accessible citizen science for visually impaired people

🕒 20 April 2021

ECSA contributed to the monthly Empowerment, inclusiveness and equity working group meetings. Claire Murray shared notes and suggestions for accessible citizen science, focusing on visually impaired people.

## Inclusivity at ECSA2020 and ECSA2022

🕒 25 May 2021

ECSA contributed to the monthly Empowerment, inclusiveness and equity working group meetings. Tim Woods presented and discussed ECSA's ideas on inclusiveness for the ECSA2020 and ECSA2022 conferences.



## Keynote on zero pollution at European Green Week

🕒 31 May - 4 June 2021

ECSA was proud to be an associate partner of [EU Green Week 2021](#), Europe's biggest annual environmental event. This event, which was dedicated to the EU's goal of zero pollution, focused on ways to tackle pollution of the air, soil, and water, aiming to create a world where pollution is no longer damaging to people's health or ecosystems. ECSA's chair, Susanne Hecker, delivered a keynote speech at the opening event, and citizen science was a prominent theme throughout the event.

📷 **Pollution.** Illustration: Patricia Tudela

## Participatory-driven approaches and the Sustainable Development Goals

🕒 21 September 2021

This series aimed to identify systemic barriers, implement solutions to contribute to large-scale changes in people-planet relationships and give participants fundamental knowledge on participatory approaches and practices. ECSA was represented by Mariana Vidal Merino, who participated in the 7th session of the webinar series organised by BluoVerda Deutschland e.V. During her presentation, she conveyed the importance of citizen science and its contribution to the Sustainable Development Goals. She also introduced the [EU-Citizen.Science platform](#).

# Using citizen science effectively within the Aarhus context

🕒 14 October 2021

This workshop, which was organised and supported by ECSA, introduced citizen science as a valuable tool that supports the aims of the Aarhus Convention. This event also targeted discussions about the growing rights and obligations that manifest when citizen scientists produce environmental information, as well as the increasing role of citizen science in supporting and monitoring the progress of the SDGs. ECSA was represented by Martin Brocklehurst and Barbara Kieslinger, who also participated as panellists during this event.

📷 Exhibit at Technorama, Zurich, Switzerland  
Photo: Simona Cerrato



## Australian citizen science conference

🕒 28 October 2021

ECSA was represented by Claudia Fabó Cartas at the 4th Australian citizen science Conference. The theme of the virtual conference was Celebrate, Communicate, Co-Create and it featured over 60 talks, presentations, workshops and symposiums. She presented the EU-Citizen.Science platform, which had been just updated with new features for a better user experience and a fresher design that showcases ECSA's visual identity, as it has been inherited by ECSA in 2022.

## Tabula rasa – Wissenschaft zum Anfassen

🕒 30 October 2021

To kick off the Berlin Science Week, Urania Berlin provided a forum for the encounter of research, politics and the public: the science fair Tabula rasa. Visitors could learn about the diversity of science in Berlin. A jury selected 25 exceptional projects from numerous proposals for poster sessions with young Berlin scientists, including ECSA and the **EU-Citizen.Science** platform. Dorte Riemenschneider presented ECSA as well as the platform to a broad audience.

📷 ECSA Conference 2020, Trieste, Italy.  
Photo: Simona Cerrato

# Evidence-based policymaking in Europe Summit 2021

🕒 9 December 2021

Claudia Fabó Cartas represented ECSA in this event. She gave a presentation on Involving citizens in citizen science – contributing to evidence-based policymaking during the plenary on the first day of this event. This plenary addressed the need for a more agile and responsive policy-making process, as well as for improved evidenced-based policies that adapt as new data becomes available, and that are trusted, understood and contributed to by stakeholders.



# Working groups —

**05.**

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**Working groups are the authentic expression of the ECSA community. Through their work, focused on the most relevant issues, new relationships and knowledge are created in harmony with the values of the association.**



**ECSA working groups** carry out strategic work around a particular theme related to citizen science.

At the 2021 General Meeting on 3 December, all working groups and their chairs were confirmed, furthermore two new working groups were approved by the General Meeting (Table 1).

The latest information on the active working groups and their contacts are available on the ECSA website.



European  
Citizen Science  
Association

Working  
Group



<https://ecsa.citizen-science.net/working-groups/>

	Working Group	Chair(s)
1	Air quality	Núria Castell
2	BioBlitz	Matt Postles
3	Citizen science and open science	Kyle Copas
4	Citizen science for health	Lea den Broeder Gaston Remmers Martijn de Groot Sabine Wildevuur
5	Citizen science networks	Daniel Dörler
6	Citizen science and universities	Thomas Kaarsted
7	Conference	Enrico M. Balli
8	Empowerment, inclusiveness and equity	Alexandara Czegledi Petra Benyei Michael Søggaard Claudia Göbel
9	European citizen science platform (new)	Claudia Fabó Cartas Francisco Sanz
10	Food citizen science (new)	Bálint Balázs Marc Barzman Anett Richter
11	Learning and education in citizen science	Laure Kloetzer
12	Policy, strategy, governance and partnerships	Niall O Brolchain
13	Project, data, tools and technology	Luigi Ceccaroni Suvodeep Mazumdar
14	Sharing best practices and building capacity	Janice Ansine
15	Storytelling and other arts	Andrea Troncoso

▲ Table 1. ECSA working groups

# Air quality



**Chair:** Núria Castell

>>

**The air quality working group** supports the activities of citizen science practitioners working on air quality across Europe by providing a network to learn from each other.

Specific objectives:

- Connect existing citizen science initiatives, facilitate the sharing of information and document the different monitoring and engagement approaches.
- Improve our understanding of citizen sensing, including aspects of citizen science engagement, communication and science-policy interaction.
- Become a collaborative platform where scientists, technologists, grassroots movements, NGOs, citizens and other interested actors can share knowledge on citizen science for air quality.



49 people belong to this working group

→ <https://ecsa.citizen-science.net/working-groups/air-quality/>

# BioBlitz



**Chair:** Matt Postles

>>

In 2021, with the support of the **ECSA BioBlitz working group**, UK based charity the Natural History Consortium were able to join a collaboration with the University of Andrews to include a cross border BioBlitz activity as part of Intersection, an international collaboration for European Researchers Night.

The collaborative efforts of the working group and additional support networks generated a 400% increase in recording activity on the iNaturalist recording platform during the BioBlitz. Over 48 hours, 8,270 participants in 43 Countries collected 53,236 wildlife observations of 7,028 different species.

The Natural History Consortium have submitted a bid to European Researchers Night 2022 to repeat EuroBioBlitz and, if

successful, are keen to work with the ECSA working group to:

- Build on learning and resources from the 2021 EuroBioBlitz pilot activity.
- Collaborate on additional funding bids to grow local participation and support working group members.
- Translate resources into more languages to broaden participation across more of Europe.

→ <https://ecsa.citizen-science.net/working-groups/bioblitz/>

# Citizen science and open science



**Chair:** Kyle Copas

>>

The adoption of open science approaches and policies can benefit citizen science by increasing its visibility and creating opportunities for collaboration, ensuring data persistence, and securing its legacies and impacts in scientific research and policy.

At the same time, citizen science is an approach to make research in its many facets more participatory. This working group seeks to:

- Explore interrelations between citizen science and open science.
- Foster the exchange of experiences and gather good practices at the intersections between citizen science and open science.

- Channel opportunities for the citizen science community towards engaging in regional policy processes on how citizen science is addressed as part of open science.
- Help to reduce the technical, legal and other barriers that prevent ECSA members and their partners from adopting open science policies and approaches that could maximise the long-term impact of their programmes.

→ <https://ecsa.citizen-science.net/working-groups/citizen-science-and-open-science/>

# Citizen science for health



**Chairs:** Lea den Broeder, Martijn de Groot, Gaston Remmers, Sabine Wildevuur

>>

The purpose of the working group is to increase the social and scientific impact of citizen science for health

Its main objectives are:

- To create a community of stakeholders dedicated to promoting and developing citizen science for health by fostering dialogue and collaboration with them.
- To develop and disseminate tools, methods, ethical frameworks and training material for CS4H.
- To enhance the visibility and potential of citizen science projects in the health domain.

We currently have an estimated 25-35 ECSA members who are part of the working group, 13 of them are also formally registered as

participants of the group on the ECSA site. Beyond that, our total mailing list consists of 56 members. 5 regular meetings were held in 2021. Additionally, numerous extraordinary meetings were held with a subgroup of the working group, to elaborate the international survey *Citizen science for health*.

The working group elaborated an international, multilingual survey on citizen science for health, with the aim to document the main challenges of citizen science in the health domain. The survey was launched late October 2021, will run until mid 2022. English, German, Dutch versions are available, French and Spanish versions soon to follow. The results will be presented at the ECSA2022 conference.

→ <https://ecsa.citizen-science.net/working-groups/citizen-science-for-health/>

# Citizen science networks



**Chair:** Daniel Dörler

>>

In the **Citizen science networks working group**, representatives from established and emerging citizen science networks are collaborating to tackle some of these challenges.

FAQs, guidelines and a preamble to give context to the criteria.

The group's first goal is to frame transparent criteria that help networks to decide, in a transparent and impartial way, if a project should be listed as citizen science on online platforms or not. This will facilitate the exchange of projects between networks and make projects more comparable.



There are currently 27 members

Currently there are 29 members in this working group and during 2021 there were 4 regular meetings.



8 regular meetings in 2021.

We organised a workshop at CitSciVirtual 2021 to collect further feedback on the draft criteria and to formulate accompanying

<https://ecsa.citizen-science.net/working-groups/citizen-science-networks/>

# Citizen science and universities



**Chair:** Thomas Kaarsted

>>

The aims of this working group are:

- Strengthening infrastructure.
- Expanding the role of libraries.
- Sharing practises, templates, policies and training programmes.

→ Building (or aiding) consortia for research applications.

There are currently 27 members and 8 regular meetings were held in 2021. As a result of this working group, a series on mapping of knowledge with a UN-conference format was created.

<https://ecsa.citizen-science.net/working-groups/citizen-science-for-health/>

# Policy, strategy, governance and partnerships



**Chair:** Niall O Brolchain

>>

This working group has the aim of informing on and advocating for the value of citizen science for achieving policy goals such as understanding and enriching the

environment, dealing with the effects of climate change, enhancing the public's relationships with research and with the natural world.

<https://ecsa.citizen-science.net/working-groups/policy-strategy-governance-and-partnerships/>

# Empowerment, inclusiveness and equity

**Chairs:** Petra Benyei, Alexandara Czegledi, Claudia Göbel, Michael Søgaard Jørgensen

>>

The monthly meetings have continued throughout 2021, exploring a variety of topics and themes.

A new activity in 2021 has been the co-organization of three webinars with the Horizon2020 financed YouCount project:

- How to integrate young people in research & innovation?
- Methodologies & evaluation for Youth Citizen Social Science (which aims at social inclusion)
- Transformative & Innovative impact of Y-CSS: How to make social change?

→ <https://ecsa.citizen-science.net/working-groups/empowerment-inclusiveness-equity/>

# Conference

**Chair:** Enrico M. Balli

>>

The conference working group mainly took care of the publication of the conference reports and the conference proceedings.

[See here.](#)

→ <https://ecsa.citizen-science.net/working-groups/conference/>

# European citizen science platform (formed 2021)

**Chairs:** Claudia Fabó Cartas, Francisco Sanz

>>

This working group was created to contribute to the sustainability of the EU-Citizen.Science, which ECSA has taken over from January 2022 after funding for the [EU-Citizen.Science](#) project has ended.

The working group aims to be the central place of exchange for those interested in sustaining the platform, building it further and expanding it.

The purpose of this working group is:

- Sustain and continue to develop the platform and the elements it contains (e.g. training), both in terms of content and technically.
- Establish connections to other citizen science platforms by connecting them.

- Involve the broader citizen science community to continue to build the platform and support it actively by using it.
- Integrate the platform into the work of ECSA.

→ <https://ecsa.citizen-science.net/working-groups/european-citizen-science-platform/>

# Learning and education in citizen science



**Chair:** Laure Kloetzer

>>

This working group aims to:

- Support, research and evaluate learning and education in citizen science.
- Undertake research into learning in citizen science.
- Develop educational opportunities in citizen science.
- Assist schools in using citizen science in the classroom.
- Develop tools to evaluate outcomes.

Specific goals are to:

- Describe opportunities for volunteer learning, including in institutional settings such as schools and museums.
- Support teachers and project teams in providing educational opportunities using citizen science.

- Build a network of teachers using citizen science in classrooms.
- Develop an evaluation strategy and tools for learning in citizen science.

→ <https://ecsa.citizen-science.net/working-groups/learning-and-education-in-cs/>

# Food citizen science (formed 2021)



**Chairs:** Bálint Balázs, Marc Barzman, Anett Richter

>>

This working group aims to create the link between food studies scholarship and ECSA and establish food citizen science as a novel research domain.

Participation in our food systems requires an everyday scientific literacy or amateur food science, which is already gaining acknowledgement in food systems transformation literature. But whereas research that engages consumers has long traditions, food studies are becoming only a recently emerging and promising thematic domain of citizen science. Academic and policy literature confirmed that citizen engagement in food system transitions is indispensable for food systems-level transformation, namely to lock out our locked-in food systems (IPES-Food 2015). Still, citizen science and public participation in scientific research are rarely used in food innovations and governance.

There has been very little focus on how citizen science could contribute to democratic, socially and economically just, and ecologically desirable food systems.

Objectives:

- Identifying new research horizons by exploring how non-scientists can play meaningful peer-reviewed roles in project development, data collection, or discovery around food system transformation.
- Establishing a peer learning group by creating a community of practice promoting Food Citizen Science, developing the methods, frameworks and agendas.
- Gaining more visibility for citizens in food systems research by engaging citizens in food knowledge production or food innovation.

→ <https://ecsa.citizen-science.net/working-groups/food-citizen-science/>

# Project, data, tools and technology



**Chairs:** Luigi Ceccaroni, Suvodeep Mazumdar

>>

This working group aims to formalise a common understanding of interests in the citizen science data space, analysing problems that citizen science projects face regarding data (e.g. interoperability, reliability, privacy, intellectual property rights)

To do so, it collaborates with other technical organisations (e.g. the Open Geospatial Consortium) and other citizen science associations (e.g. CSA, ACSA).

→ <https://ecsa.citizen-science.net/working-groups/projects-data-tools-and-technology/>

# Sharing best practices and building capacity



**Chair:** Janice Ansine

>>

This working group aims to promote high-quality citizen science by: sharing existing examples of good practice; developing practitioner guides and other documents to support the citizen

science practitioner community; and bringing together all parties involved in citizen science to develop partnerships, share resources and experiences, and build capacity within the sector.

→ <https://ecsa.citizen-science.net/working-groups/sharing-best-practice-and-building-capacity/>

# Storytelling and other arts



**Chair:** Andrea Troncoso

>>

Stories can activate people and invite them to be protagonists of the changes they want. And there are so many stories in the universe of citizen science. Arguments and facts are often not effective ways to get people to listen and connect.

However, we can weave them into stories and make communication more effective. The purpose of this working group is to explore and gain knowledge and confidence in the way stories are an ally in science communication, specifically in citizen science.

The group also produced a training course on storytelling techniques in citizen science which was published on the training section of the **EU-Citizen.Science platform** and is freely accessible to all interested users.



**EU-Citizen.Science**  
<https://moodle.eu-citizen.science/>

→ <https://ecsa.citizen-science.net/working-groups/storytelling-and-other-arts/>

# Projects

06.

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**ECSA is part of many international networks to explore, reflect, experiment, and study how the citizen science can be applied to ever wider fields.**

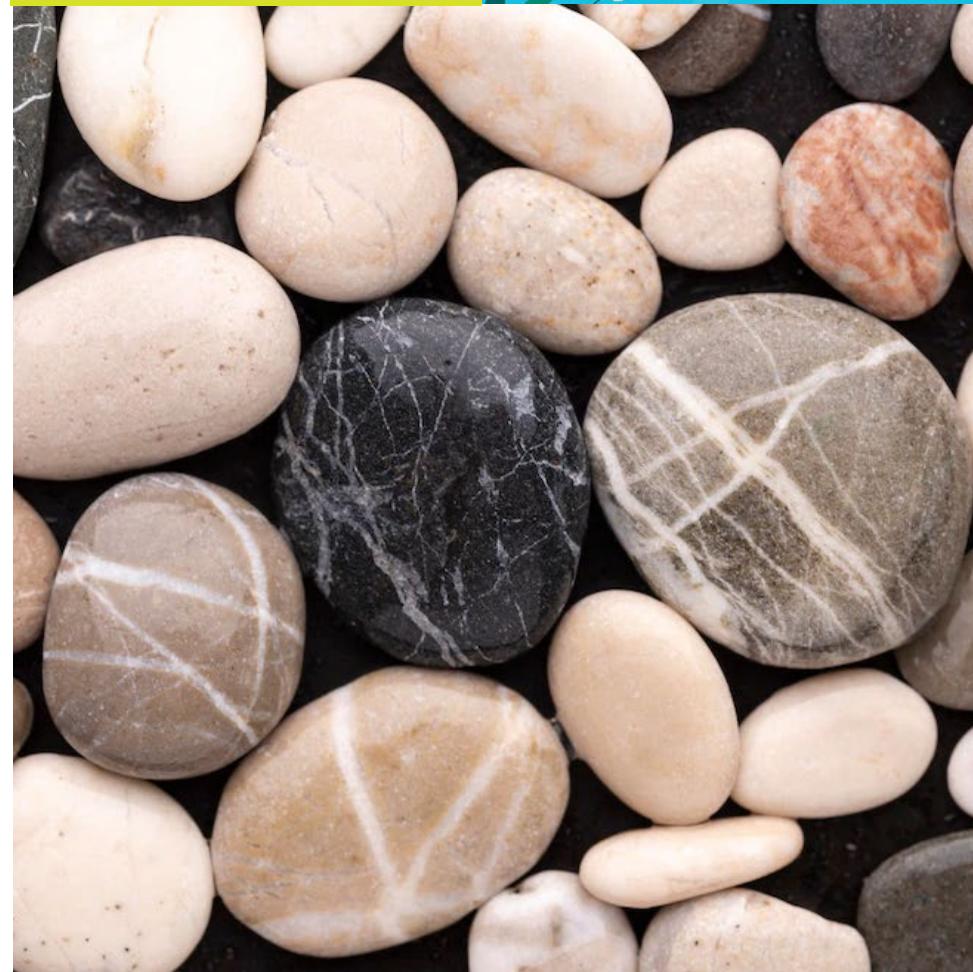
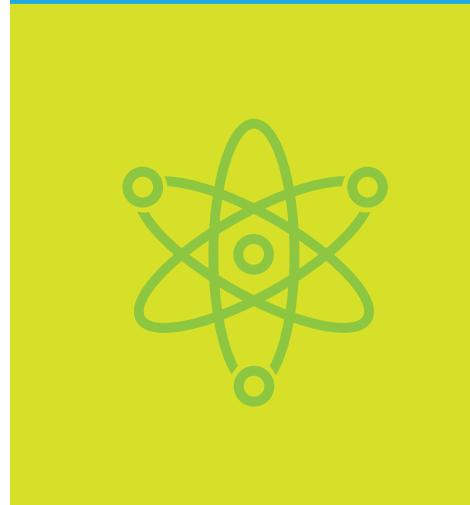
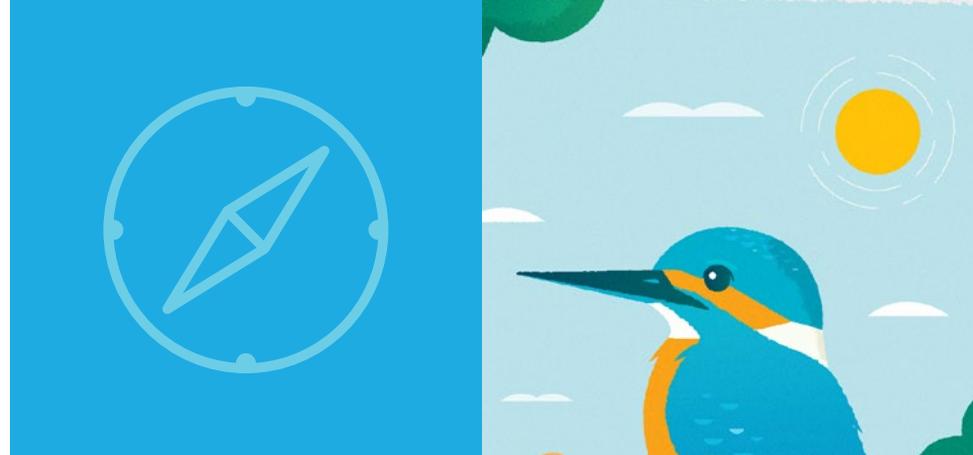


ECSA is involved in 13 EU-funded projects that conduct research on citizen science, build infrastructure, produce framework documents, test the citizen science or develop guidelines for citizen science. ECSA can thus support and develop citizen science, widen the international and even global citizen science network, organise exchanges, stimulate mutual learning, find and promote synergies, test new approaches and co-create.

In 2021, ECSA contributed to the preparation of a large number of proposals submitted under the Horizon 2020 funding scheme. We are confident that some of the submitted proposals will be funded and launched during 2022.

The projects in which ECSA was involved in 2021 are described in the following pages.

**Friends.** Photo: Martin Permantier by Unsplash  **Working Group.** Photo: Scott Graham by Unsplash  
Illustration: Patricia Tudela



**COESO** aims to develop and sustain citizen science research in the social sciences and humanities. The consortium is a collection of 15 partners from Belgium, France, Germany, Italy, Portugal, and Spain. The project is an endeavour to bridge collaboration between the European social sciences and humanities (SSH) community, the citizen science community, as well as the open scholarly communication community.

**COESO** addresses specific challenges that hinder the development of citizen science in the social sciences and humanities by building a comprehensive framework that:

- Hosts citizen science pilots reflecting the variety of citizen science practices and challenges in the social sciences and humanities.
- Supports pilots with collaborative tools through a specific virtual ecosystem ('VERA').
- Targets funding streams needed to expand citizen science in the social sciences and humanities.
- Provides support and training to achieve public engagement in the social sciences and humanities by mutual learning.

- Produces knowledge on citizen science co-creation practices in the social sciences and humanities through a rigorous assessment protocol on collaboration challenges in the pilots.

## ECSA activities and milestones

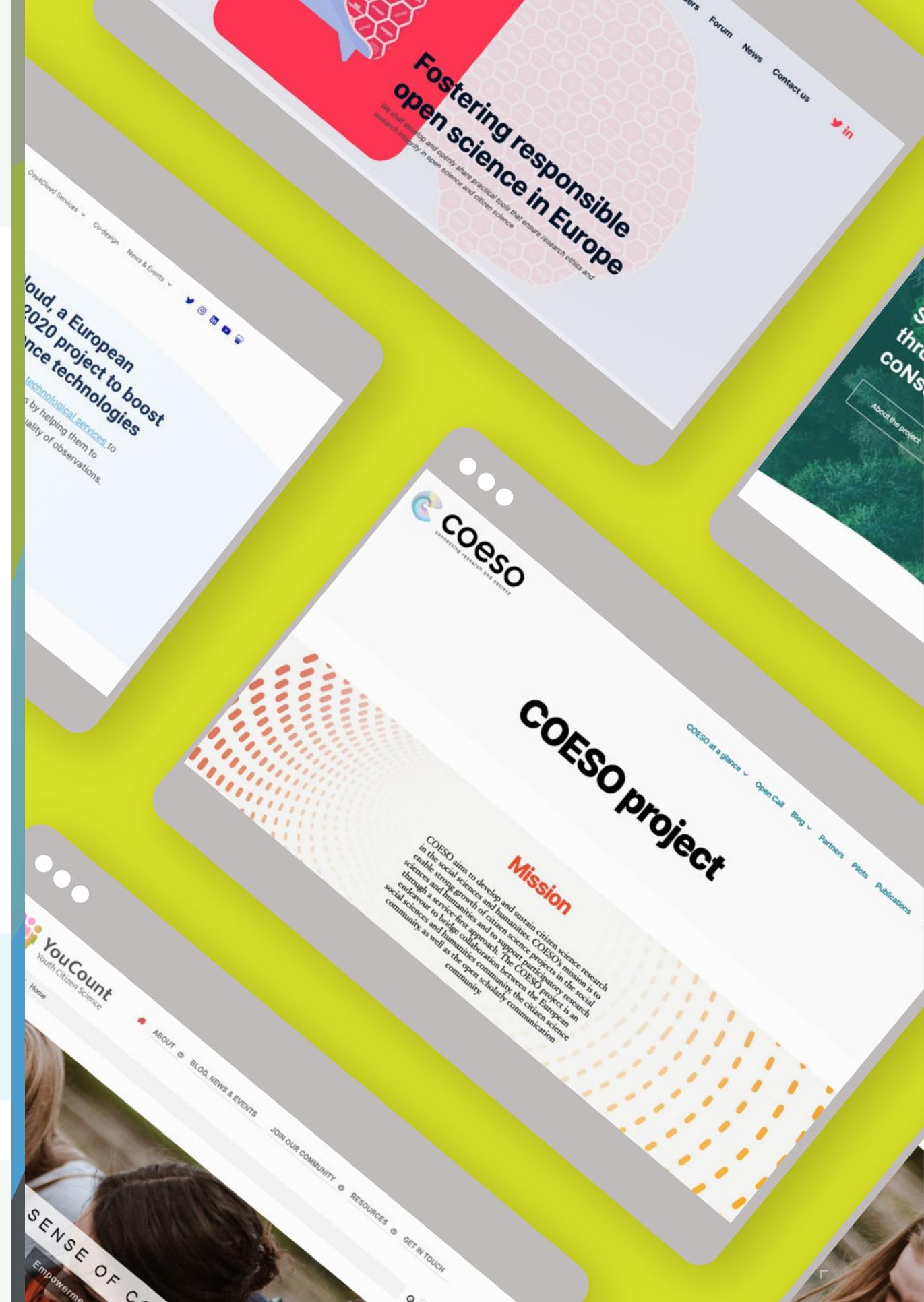
ECSA's work in **COESO** centres mainly in funding advocacy, and in 2021 we co-created and co-wrote the Funding Advocacy plan:

- [Funding Advocacy Action Plan](#)

## Next steps

Throughout 2022, ECSA and Ibercivis are collaborating to develop and deliver workshops for national and international funding stakeholders to engage them in the co-creation of the VERA platform. ECSA is also supporting the ongoing pilot projects through dissemination activities.

- Claire Murray**. Project officer
- @COESOEU**
- <https://coeso.hypotheses.org/>





**COMPAIR** supports citizens across Europe, including those with no science background, to use digital sensors to collect local climate data, focusing on air quality. Citizen science participants will be invited to analyse the data and use it to co-create new climate friendly behaviours and policies that address sustainability both at home and across the continent to improve the quality of the air for all.

Launched in November 2021 **COMPAIR** is working with local authorities and citizens to run citizen science experiments to supplement gaps in official air quality data to (a) co-create more effective social actions and (b) influence city policy. Together these actions will contribute towards healthier and greener cities for all. The citizen science initiatives are located in Athens, Berlin, Flanders, Sofia and Plovdiv. The **COMPAIR** community will share its results, data and methodologies so other groups from across the world can learn from our work and develop their own local air quality experiments.

Consisting of 15 organisations from 6 different European countries: Belgium, Bulgaria, Germany, Greece, United Kingdom, and The Netherlands, the initiative is led by Digital Vlaanderen.

## ECSA activities and milestones

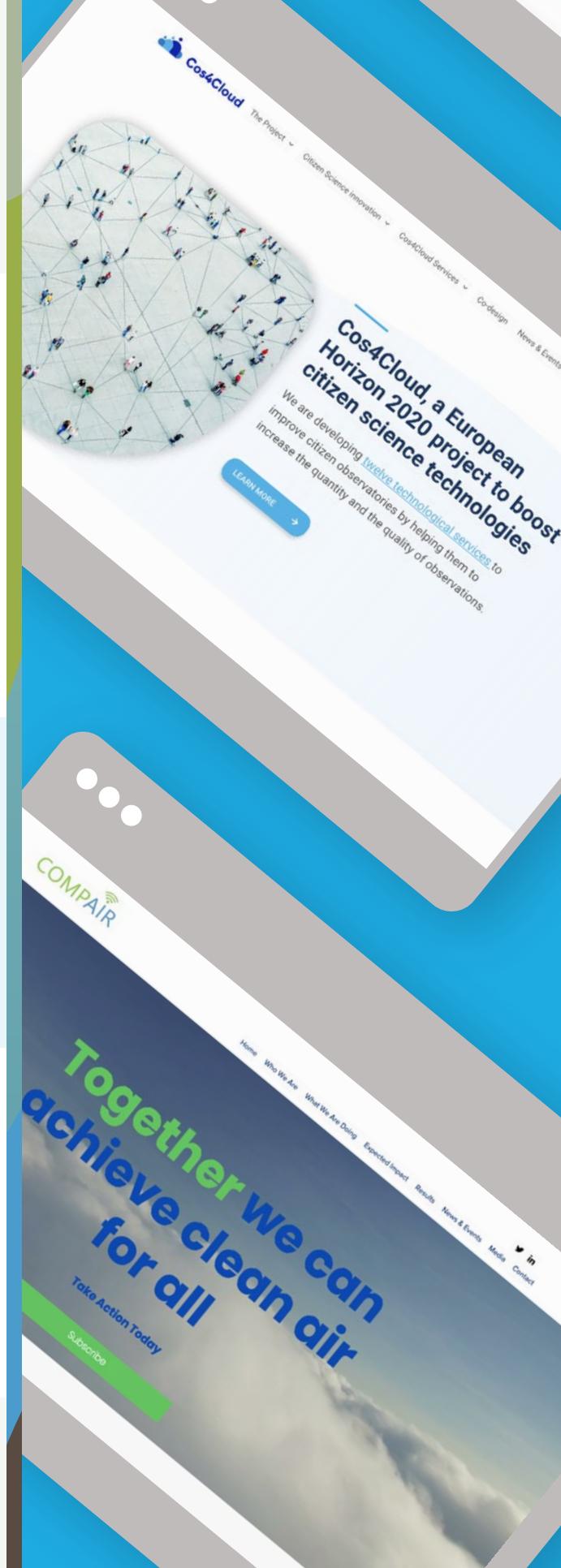
ECSA leads the Stakeholder Engagement & Framework design. Our aim is to engage different stakeholders in the pilots through a co-creation process, including the design of impactful communication and gamification approaches. ECSA will be leading the pilot operation plans where we will outline the key stages of the pilot deployment, drawing a road map and action plan. We will use this opportunity to apply ECSA's experience in running successful citizen science initiatives and put in place a robust co-creative and inclusive methodology.

During the first 2 months of the project we have focussed on mapping stakeholders focusing not only on academia, industry and policy makers, but also on representation of society with all of its inherent diversity. Finally we have submitted an abstract to present a dilemma at the Living Knowledge Conference together with SOCIO-BEE. With this dilemma we will create a space for open discussion on different strategies of engaging vulnerable people to participate in citizen science projects. We will focus on barriers and avenues to overcome them.

## Next steps

The next big step for this project is the first co-creative workshop with stakeholders for all the pilots. One of the workshops will be held in Berlin at the beginning of 2022 in Berlin, in which ECSA will participate actively. We are also contributing to a systematic map of citizen science projects whose tools can be useful for the project.

-  **Carolina Doran.** [Project officer](#)
-  **Beatriz Noriega-Ortega.** [Communication officer](#)
-  [@WeCOMPAIR](#)
-  <https://www.linkedin.com/in/wecompair>
-  [wecompair.eu](http://wecompair.eu)



**Cos4Cloud** integrates citizen science into the European Open Science Cloud (EOSC) ecosystem. Based on the experiences of various biodiversity platforms (including Artportalen, Natusfera, iSpot) and environmental monitoring platforms (including FreshWater Watch, KdUINO, OdourCollect, iSpex and CanAir.io), Cos4Cloud is co-designing, prototyping and implementing 12 new tools and services for improving data and information quality of observations in citizen observatories.

## ECSA activities and milestones

During 2021, ECSA focused predominantly on networking, training and capacity building, communication, outreach, and stakeholder engagement. ECSA has been active in the CoNNect group, which was set up to ensure smooth collaboration throughout the project partners. ECSA supported **Cos4Cloud**'s communications efforts and shared important news items and updates through the ECSA channels.

In March, ECSA hosted a webinar at which attendees could learn about **Cos4Cloud** and its ambitions. During the summer months, together with other consortium members we

worked on a paper for submission to the journal *Sustainability*. We conducted a series of interviews with potential end-users of **Cos4Cloud**'s tools and services, which were written up as blog posts and began work on the policy briefs series to be delivered for the project.

## Next steps

Communications and outreach for the project will step up in pace during 2022. We will launch the first policy briefs in the series, as well as support other project outputs. The fourth ECSA international conference will also be a significant outreach opportunity for **Cos4Cloud**, offering the chance to engage with the wider citizen science community in Europe and share the project's tools and services with target groups.

-  **Tim Woods.** Project officer
-  **Claudia Fabó Cartas.** Project officer
-  **Ciara Davies.** Student assistant/project officer
-  **@Cos4Cloud**
-  **cos4cloud**
-  **<https://cos4cloud-eosc.eu/>**

**D-NOSES** empowers citizens through responsible research and innovation (RRI), citizen science and co-creation tools to design odour-control measures at the local, national and global levels, working with civil society organisations (CSOs), non-governmental organisations (NGOs), local authorities, odour-emitting industries and universities.

Odour pollution is the second-leading cause for environmental complaints across Europe. However, many European countries and regions do not have sufficient regulations and guidelines that deal with odour pollution. In addition, the citizens personally affected in their everyday lives are rarely included in attempts to solve these issues.

The **D-NOSES** project, funded by the EC's H2020 programme from April 2018 to September 2021, designed and tested a bottom-up methodology to incorporate citizen science in odour pollution management. The methodology was tested in 11 pilot countries, where solutions to local odour pollution were co-created with the citizens and stakeholders from industries, local authorities, policymakers, researchers and NGOs. To support the spreading of information and knowledge around the issue of odour pollution, D-NOSES also built the **International Odour Observatory**, co-created with citizens, policymakers and researchers across Europe.

## ECSA activities and milestones

ECSA was responsible for analysing the odour situation in Germany and leading the German pilot study in Schermbeck. We wrote the report on the project's policy-society dialogues, which was captured as 'Documentation of policy-society dialogues' and described all policy dialogue efforts in the different pilot countries. Towards the end of the project, ECSA created the **'DIY guidelines for citizen science projects in odour-conflicted communities'**, which is publicly available. Throughout the project, ECSA provided communication and dissemination channels for the project outcomes, within Germany and via the ECSA network, as well as supporting advocacy activities.

## Next steps

After the project closed in September 2021, **the guidelines to develop citizen science projects** have been made available.

-  **Gerhard Schleenstein.** Project officer
-  **Tim Woods.** Project officer
-  **Carolina Doran.** Project officer
-  **@dNOSES\_EU**
-  **@dNOSES.EU**
-  **<https://dnoses.eu/>**

**EU-Citizen.Science** is building and establishing a central citizen science hub for Europe. The platform offers information about citizen science projects, tools, best practices, training modules (self-directed training units), a curated selection of resources and an events calendar, a blog and a community forum.

The project **EU-Citizen.Science** ends in December 2021, but the platform will continue to exist under the umbrella of ECSA, who will take on the responsibility for management and further developments of the platform in 2022.

The **EU-Citizen.Science** consortium consists of 14 partners and 9 third parties who represent a variety of stakeholders active in citizen science. Five ECSA members have been involved in the project as the Third Parties of ECSA.

## ECSA activities and milestones

ECSA has coordinated two platform releases together with Ibercivis who is in charge of the technical development of the platform. Each release included new functionalities, which ECSA has presented to different audiences in conferences, workshops and online events to continue to gather feedback and the needs of the community.

To prepare for the responsibility of managing the platform after the end of the project, ECSA has been working on a **platform sustainability plan**. ECSA has incorporated creative ideas and key comments from the project consortium, the user community, the ECSA Board and ECSA Headquarters into the Sustainability Plan.

ECSA was actively involved in the organisation of the policy event **“Citizen Science for Policy across Europe”**, which took place in June 2021 as a satellite event of the European Research and Innovation Days. ECSA co-authored a **brief report** with the results of the event together with MfN, Ibercivis and MICINN-FECYT.

During 2021, ECSA has coordinated monthly meetings with other 20 citizen science projects funded under the *Science with and for Society* programme to exchange project updates and results, discuss methodologies and common issues in the projects and explore possible synergies and collaboration. These meetings showed a consistently high number of participants, gave impetus to organise joint events and fostered a well-functioning cooperation with other projects. Therefore, ECSA has decided to continue the coordination in 2022, which was very much welcomed.

## Next steps

From 2022 on, ECSA is responsible for the management and development of the platform. Recently awarded Horizon Europe funding to a new project called ECS led by ECSA allows the further development of the **EU-Citizen.Science** platform over a four-year period.

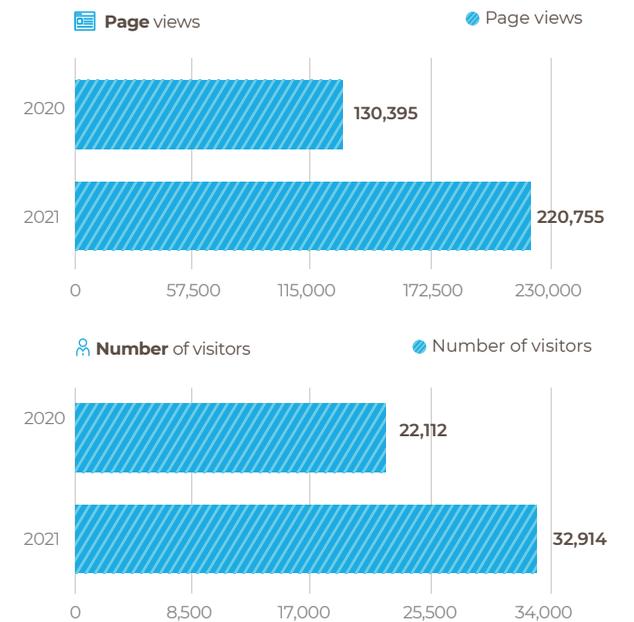
## Statistics

### Visitors

Since its launch on 6 April 2020 until end of 2021 the platform has received visitors from 187 countries.

	Number of visitors	Viewed pages
April 2020 - December 2020	22,112	130,395
January 2021 - December 2021	32,914	220,755
<b>Total</b>	<b>55,026</b>	<b>351,150</b>

▲ **Table 2.** Number of visitors and page views between 2020-2021.



▲ **Figure 6.** Page views and number of visitors between 2020-2021.

-  **Claudia Fabó Cartas.** Project officer
-  **Andrea Troncoso.** Project officer
-  **Carolina Doran.** Project officer
-  **Alicia Moreno.** Student assistant
-  **Marzia Mazzonetto.** Project officer
-  **@eucitsciproject**
-  **EUCitSciProject**
-  **eucitsciproject**
-  **<https://eu-citizen.science/>**

**INCENTIVE** aims to demonstrate the potential of citizen science through the co-creation, establishment and assessment of citizen science Hubs (CSH) in four European Universities. The project aims to accelerate the transition of these institutions to more inclusive, open and democratic innovation and scientific governance. Furthermore, delivering a legacy to European and international research institutes on how to democratically and collaboratively create and operate their own CSH. To this end, we have started by establishing such citizen science Hubs in 4 world-class European Research Performing and Funding Organisations (RPFOS). Covering all 4 MoRRI Country Clusters, including University of Twente, Autonomous University of Barcelona, Aristotle University of Thessaloniki, and Vilnius Gediminas Technical University.

ECSA tailors the governance and operating models of the hubs to their unique institutional specificities and regional ecosystems of R&I stakeholders. They will then be put to the test to drive institutional change through a series of RRI-grounding actions. The citizen science Hubs, besides being a sustainable institutional change themselves, will serve as a vehicle for introducing substantial institutional changes in the RPFOS and their communities. ECSA will closely monitor, evaluate and report the performance and outcomes of the citizen science Hubs and their actions, providing evidence of societal, democratic, economic and

scientific impacts. Along the way, we will foster mutual learning and networking opportunities among RPFOS across Europe to share experiences and develop practical tools to enable RPFOS to drive similar institutional changes in other contexts.

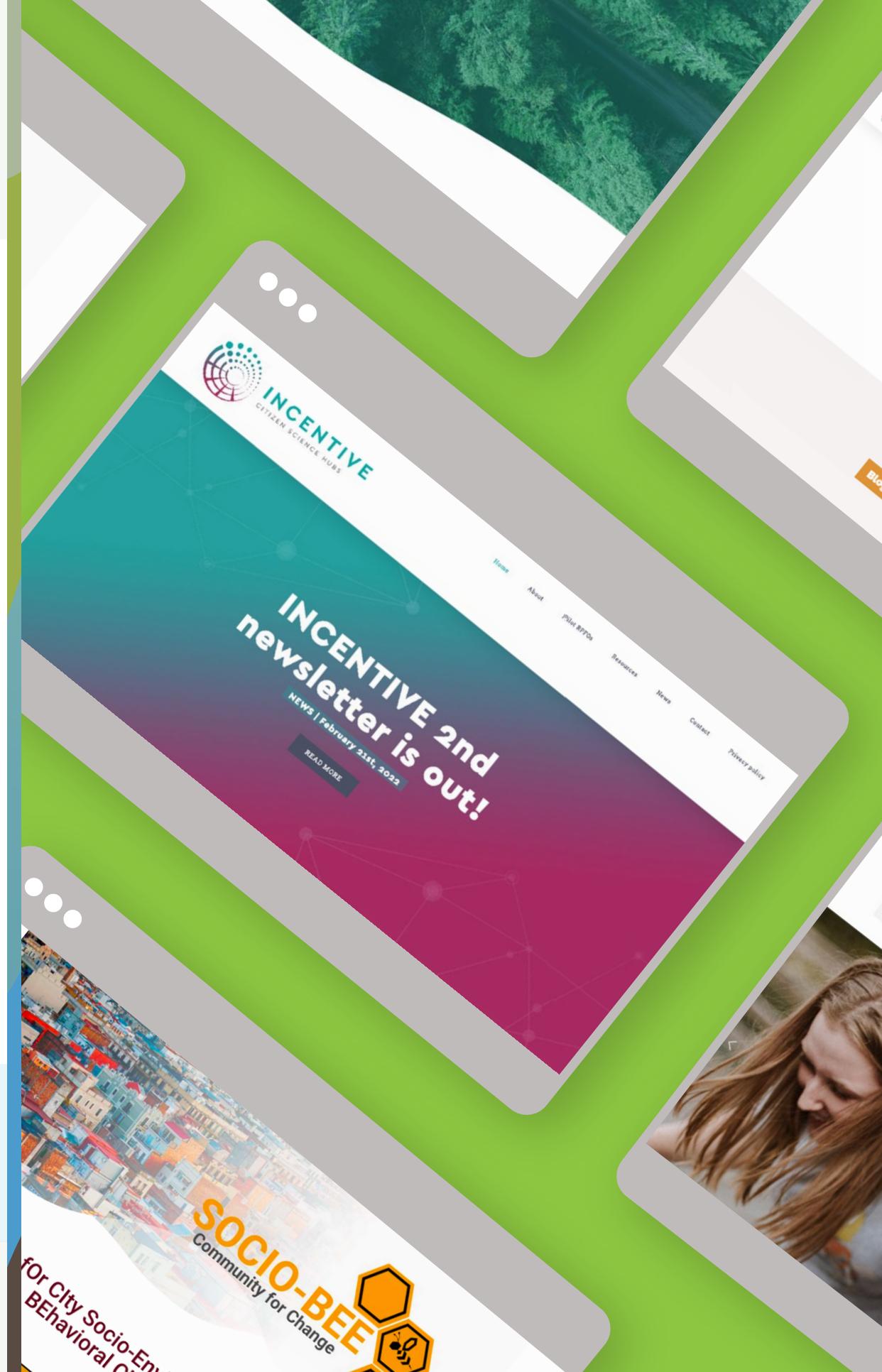
### ECSCA activities and milestones

The success of **INCENTIVE** relies on the formative relationships with stakeholders and synergies beyond the 4 core RPFOS. ECSCA's main task in **INCENTIVE** aims to address this by creating opportunities, and through connecting the cross-SWAFS working group and other projects.

### Next steps

The development of the hubs will accelerate throughout 2022, ECSA will be supporting various parts of this process. We will contribute to the creation of the mutual learning exercises for the hubs, sharing expertise and supporting their growth. ECSA will also further build on synergies to open up the hub methodology and experiences to the broader citizen science community.

-  **Claire Murray.** Project officer
-  **Andrea Troncoso.** Project officer
-  **@incentive\_eu**
-  **www.incentive-project.eu**



**PANELFIT** (Participatory Approaches to a New Ethical and Legal Framework for ICTs) is an H2020-funded project that facilitates adaptation to the new EU regulations on data protection, data commercialization, security and cybersecurity issues. Its outcomes will include an open-access guidelines document, a critical analysis of the information and communication technology (ICT) data protection regulatory framework, and a report on the governance of ICT data protection ethical and legal issues.

## ECSA activities and milestones

During 2021, ECSA focused on delivering the **citizens' information pack**, which is one of the project's major publicly available deliverables. Along with project partners ICM-CSIC and OBCT, we drafted much of the contents for this pack, including a series of factsheets on legal and ethical issues around ICTs. We also created the document 'ICTs, data and vulnerable people: a guide for citizens' which drew on much of the research we conducted during the project. The overarching aim of this output is to provide a reliable source of information to different experts as well as the general public regarding key aspects of the GDPR and where to find out more. To further enable this the CIP is currently being translated into French,

Spanish, German and Italian all of which will be available on the project's website.

## Next steps

The project will be extended until April 2022, and during the final months of the project, ECSA's main focus will be to promote the citizens' information pack to its members and the wider citizen science community as a useful resource for citizen science practitioners to rely on and design their data protection policies. ECSA is also leading the organisation of the webinar: **'Data protection, citizen science and vulnerable groups: protecting everyone's rights' to be held in February 2022**. This webinar will see data protection experts. Citizen science practitioners, NGO's representing different vulnerable groups and a diverse set of participants share their concerns and ideas regarding data privacy regulations and how to encourage participation in citizen science projects.

- Tim Woods.** Project officer
- Carolina Doran.** Project officer
- @Panelfit**
- Panelfit.news**
- <https://www.panelfit.eu/>**



# ROSiE

**ROSiE** (Responsible Open Science in Europe) aims to identify emerging ethical, social and legal challenges related to open science and citizen science. Over three years, a multidisciplinary project team will identify such challenges and develop practical tools to support research ethics and research integrity in and for an open research ecosystem in Europe.

**ROSiE** is a three-year project funded by HORIZON2020. Its mission is to co-create with all related stakeholders novel practical tools to foster responsible open science and citizen science. The project will provide customised solutions through an interdisciplinary knowledge hub bound to actively pursuing open approaches in science and research, while complying with relevant legal frameworks and ethical standards.

## ECSA activities and milestones

During 2021, the first year of the project, ECSA established and coordinated the Cross-SwafS Stakeholder Forum for Responsible Open Science. The Forum is a new space for horizontal communication of SwafS projects working on citizen science, open science and Responsible Research and Innovation (RRI) to

share knowledge and experience. The forum offers space to discuss challenges and opportunities and strengthen the knowledge base about Research Ethics and Research Integrity in open science and beyond. ECSA led the Forum's kick off meeting in September 2021 and facilitated the interim meeting in December 2021. At the end of 2021 representatives of 15 SwafS projects are participating regularly in the Forum meetings. SwafS projects interested in the interface of citizen science, open science and Responsible Research and Innovation are [welcome to join us](#).

In addition, ECSA started a mapping exercise to investigate the ways that citizen science addresses issues of openness, inclusion and empowerment and look at the aspects of citizen science that are synergistic with and relate to open science and Responsible Research and Innovation – particularly in reference to the 10 Principles of citizen science and the Characteristics of citizen science. This exercise will continue during 2022. ECSA also organised and conducted a workshop for all ROSiE partners on citizen science.

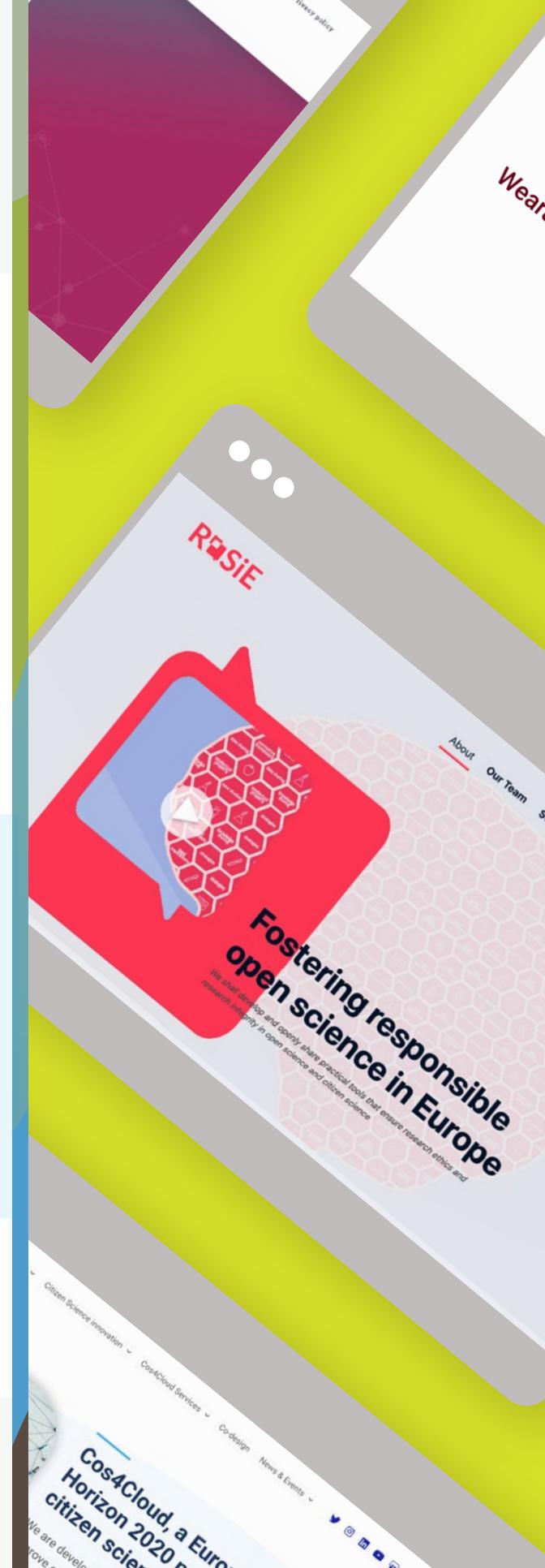
This was essential given that many of the

partners haven't worked with citizen science in the past.

## Next steps

During 2022 ECSA will continue to lead and facilitate the cross-SwafS stakeholder forum for responsible open science. Moreover, in 2022 ECSA will organise two online workshops as part of the Forum. The mapping exercise on citizen science and open science will be finished by August 2022 and shared with the community via our website.

-  **Mariana Vidal Merino.** Project officer
-  **François Jost.** Project officer
-  **Beatriz Noriega Ortega.** Communication officer
-  **@rosie\_open**
-  **ROSiE Responsible Open Science in Europe**
-  **<https://rosie-project.eu/>**





**SEEDS** (Science Engagement to Empower aDoleScents) is a science project by teenagers for teenagers. It aims to empower them to live healthy lifestyles and to help them explore how important and exciting science can be. They will use citizen science to create new experiments for healthy lifestyles. These will run for six months in schools in Spain, the Netherlands, Greece and the UK.

**SEEDS** Consortium aims to engage adolescents from underserved communities in designing interventions that seed an interest in scientific methodologies, promote STEM careers and empower them by enhancing their critical thinking capabilities. All **SEEDS** partners share a core belief that more can be done to create a better (and healthier) future for adolescents from low-income neighbourhoods.

## ECSA activities and milestones

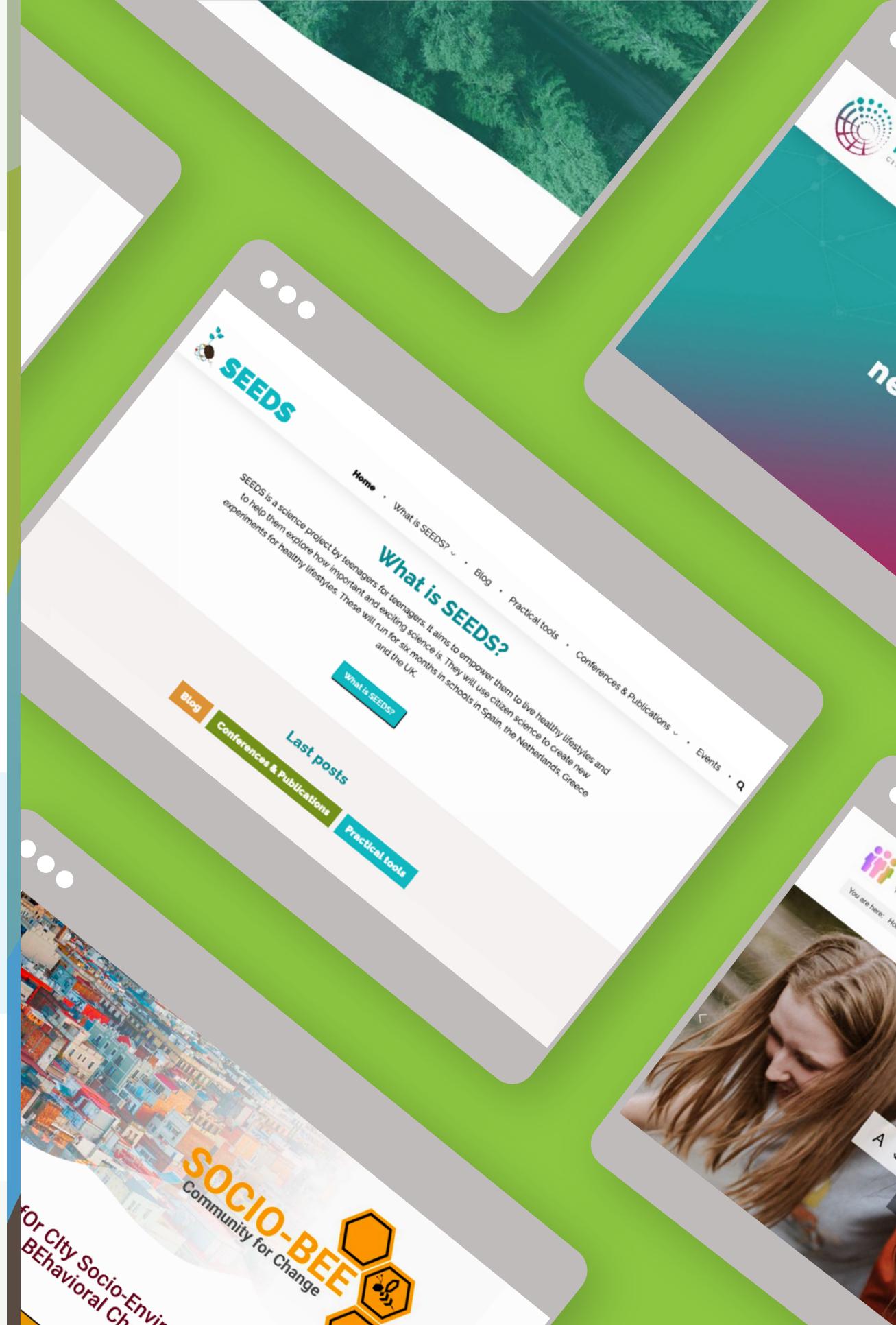
ECSA led the development of the Makeathon events, building a common structure with all partners and creating guidelines to standardise the process. ECSA trained the **SEEDS** team in the Makeathon process and delivered the first implementation of the Makeathon series in person in the UK. We are leading the dissemination and communication work and

have shared the process and practicalities of **SEEDS** within the citizen science community. We promote the work of the teenage scientists and the possibilities for citizen science in public health via the **SEEDS** Twitter and website.

## Next steps

The interventions co-created by the teenagers will be implemented between January-June 2022 and evaluated at the end of 2022. ECSA and **SEEDS** consortium partners will share their results, including publications and policy briefs through the website, the Twitter account and at various conferences, centring the voices and perspectives of the teenage scientists.

-  **Claire Murray**. Project officer
-  **Simona Cerrato**. Communications and Community Manager
-  **@SMakeathons**
-  <https://seedsmakeathons.com/>





**SOCIO-BEE** aims to reduce air pollution in urban areas through citizen science. Through an example from nature, **SOCIO-BEE** builds on the metaphor of bee colonies to develop effective behavioural and engagement strategies with a wide range of stakeholders (i.e., queen bees, drone bees, working bees, and bears) and to co-create in hives long-lasting solutions against urban air pollution supported by emerging new technologies such as drones or wearables.

The project launched in October 2021 and harnesses the power of community engagement to raise other citizens' awareness of climate change and their own responses to it, through experimentation, better monitoring, and observation of the environment. This idea is beautifully emphasised in this project through the metaphor of bee's behaviour with citizen scientists with different levels of engagement (queens, workers, larvae and drones), interested stakeholders (honey bears), citizen science practitioners (bee keepers) and citizen science hives that will be tested in three different pilot sites and with different target populations: young adults, elderly people and everyday commuters.

## ECSA activities and milestones

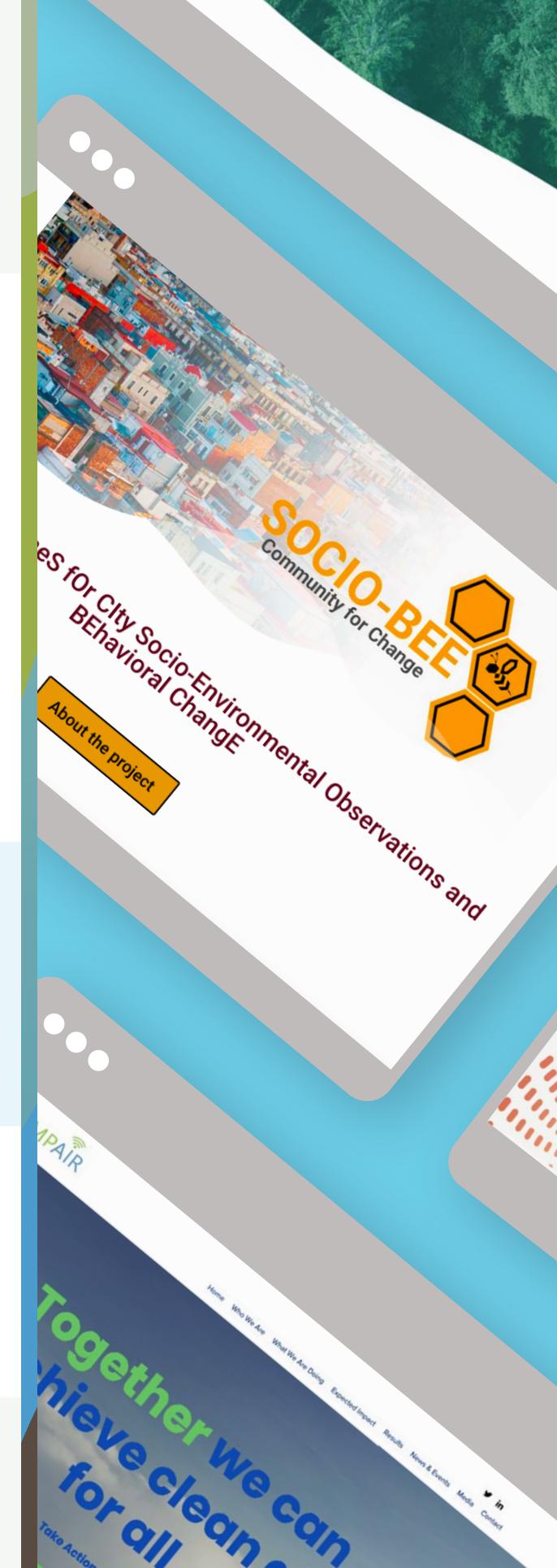
We will lead the creation of a strong and inclusive communication and dissemination strategy for sharing the project's outputs with key stakeholders, citizen scientists and the citizen science community. In December 2021, ECSA submitted a first iteration of this communication and dissemination plan and activities where we describe a first vision for the strategy for **SOCIO-BEE** that takes into account the project's big commitment to reach a broad audience.

In addition we will develop and implement an exploitation plan including business and revenue models for **SOCIO-BEE's** methodology. During the first 3 months of the project we started the design of the website, and created [Twitter](#) and [LinkedIn](#) accounts that will help us reach a broader audience in the following months and through the duration of the project. Along those same lines ECSA will greatly contribute to the development of an Engagement, Behavioural Change and Pro-Environmental Stewardship strategy.

## Next steps

We are currently building a portfolio of promotional materials for the consortium to use when presenting the project outside the consortium. We will have a functional website by spring 2022 and a Facebook page early 2022 allowing **SOCIO-BEE** to have a strong online presence. Furthermore, we are hosting a crash course on air quality that will be part of ECSA's webinar series and thus serve as a significant step towards raising awareness on this topic. Both the project and its resources will be made available on the EU-Citizen.Science platform.

-  [Carolina Doran](#). Project officer
-  [Beatriz Noriega Ortega](#). Communication officer
-  [@socio\\_bee](#)
-  [SOCIO-BEE](#)
-  <https://socio-bee.eu/>



**Step Change** (Science Transformation in Europe through Citizen involvement in Health, conservation and energy research) explores and boosts the potential of citizen science for advancing knowledge and innovation in critical research fields. Five hands-on citizen science initiatives in the energy, health and environment sectors will be developed and analysed to generate recommendations for a better anchorage of citizen science in scientific institutions, and a better alignment between science and society.

**Step Change** implements five citizen science Initiatives in the fields of health, energy and environment. The citizen science Initiatives tackle the issues of wildlife conservation in Slovenia, non-alcoholic fatty liver disease in the UK, energy communities in Germany, infectious disease outbreak preparedness in Italy, and off-grid renewable energy in agriculture in Uganda. The EU-funded project, launched in March 2021, will draw on the expertise of 11 partners from 7 European countries and Uganda, to increase the mutual responsiveness of science and society while boosting the capacity of scientific investigation over phenomena that cannot be completely seized within conventional disciplinary boundaries.

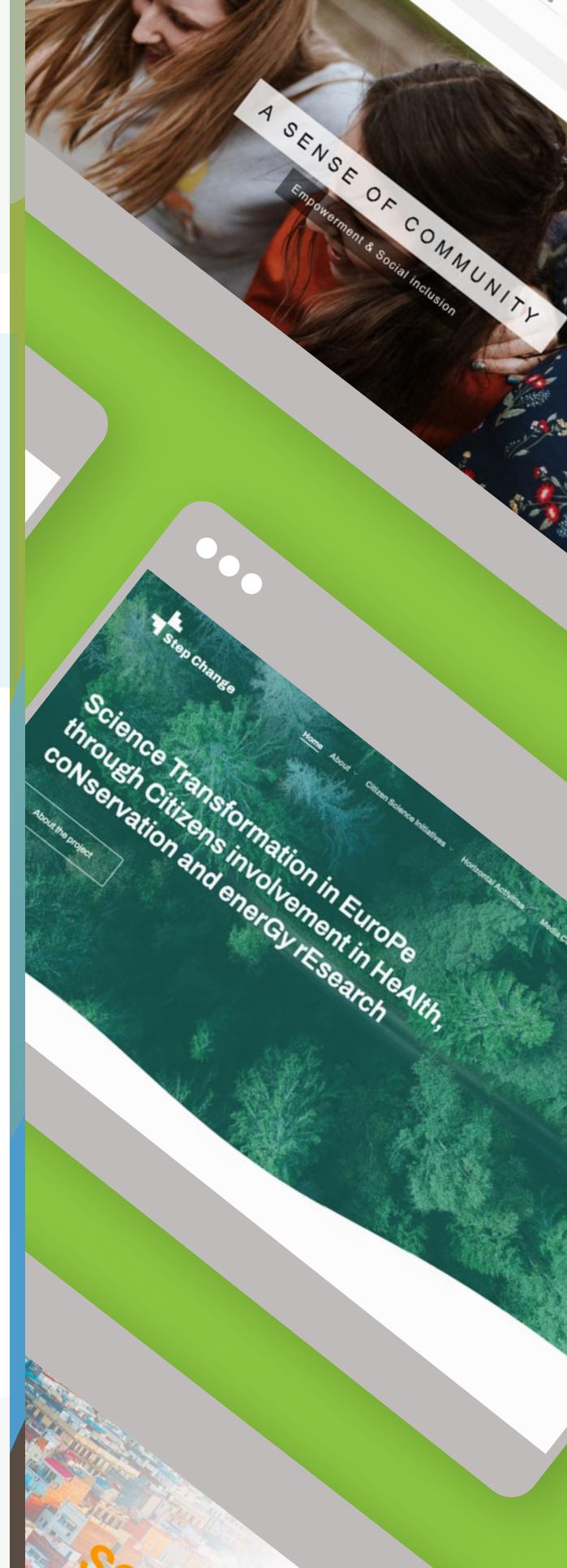
## ECSA activities and milestones

ECSA leads the Stocktaking Exercise and Recommendations. This is one of the major project deliverables, as it will collect theoretical and practical insights about different citizen science applications. Even though all activities under ECSA's lead are planned to start in February 2023, ECSA is already participating in activities related to communication and dissemination, scoping processes, mutual learning exercises and participatory evaluation. During the first ten months of the project, ECSA organised and facilitated monthly coordination meetings among working packages that are horizontal to the five citizen science Initiatives. We will continue to host these meetings during 2022. Additionally, ECSA has reviewed the scoping process deliverables, guidelines for training the citizen science Initiatives, rough plan templates for citizen science Initiatives, and done several dissemination activities.

## Next steps

ECSA will lead a kick-off meeting for the stocktaking process to foster the embedding of citizen science in scientific institutions taking place in late 2022.

-  **Mariana Vidal Merino.** Project officer
-  **François Jost.** Project officer
-  **Simona Cerrato.** Communications officer
-  **@StepChangeEU**
-  **ROSiE Responsible Open Science in Europe**
-  **<https://stepchangeproject.eu/>**





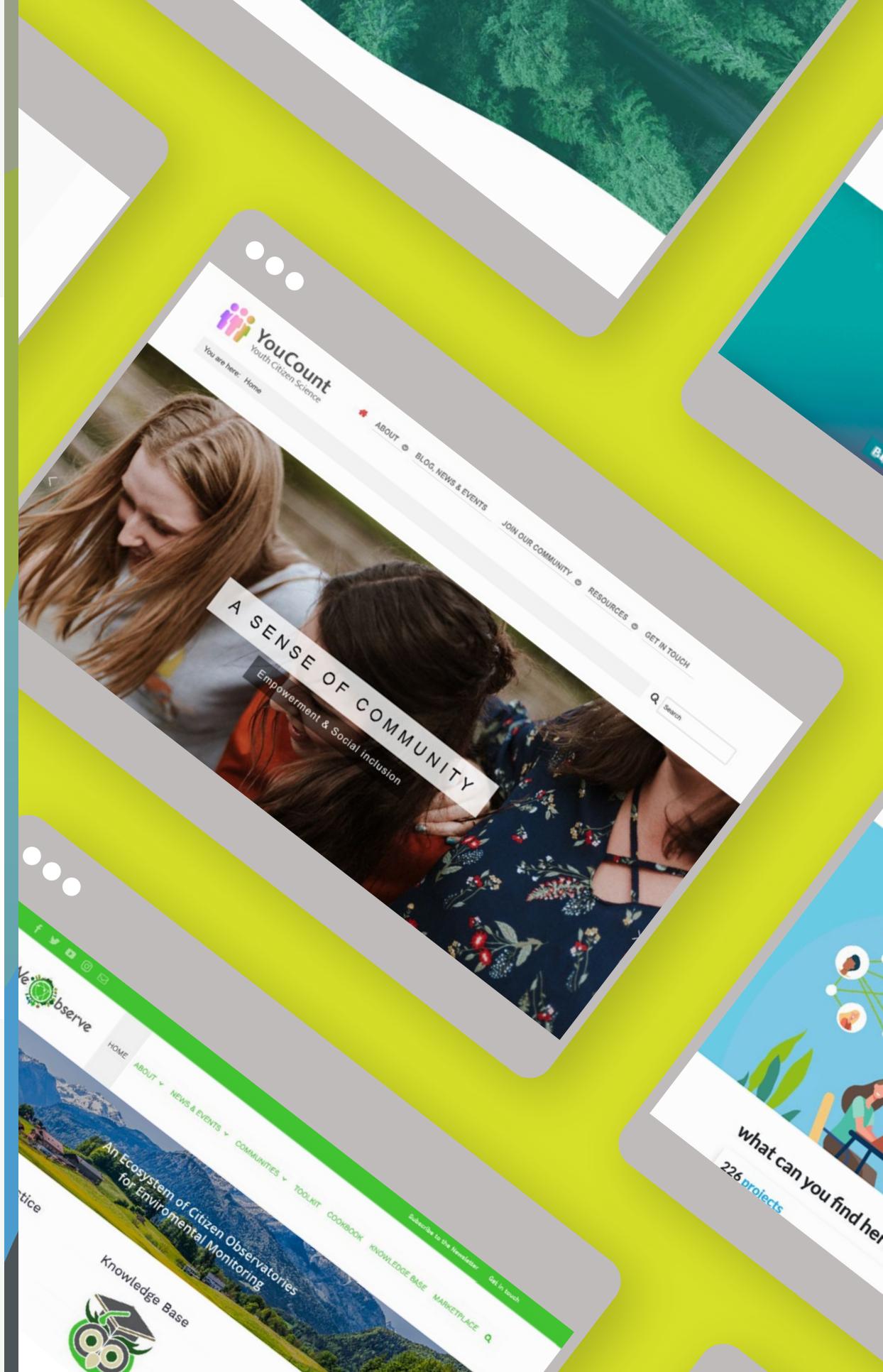
**WeObserve** tackles three key challenges that citizens observatories face: awareness, acceptability and sustainability. The project improves coordination between existing citizen observatories and related regional, European and international activities. The WeObserve mission is to create a sustainable ecosystem of citizen observatories that can systematically address these identified challenges and help move citizen science into the mainstream. The project ended in 2021.

 WeObserve has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 776740.



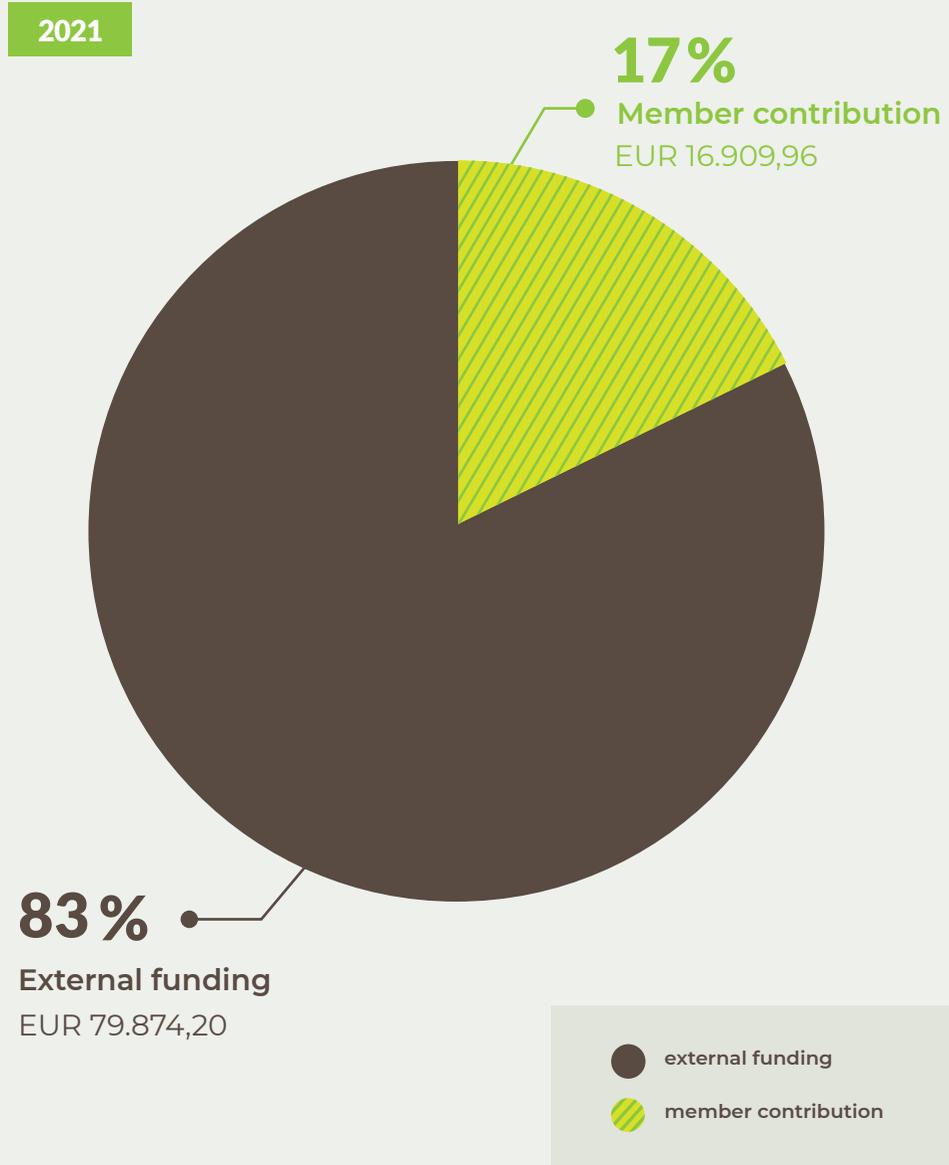
**YouCount** aims to generate new knowledge and innovations to increase the social inclusion of youth at risk of exclusion across Europe through co-creative youth citizen social science. The multiple case studies – consisting of nine co-creative Y-CSS projects across Europe – will provide increased knowledge of the positive drivers for social inclusion in general and specific knowledge and innovation relating to participation, belonging, and citizenship.

 YouCount has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 101005931.

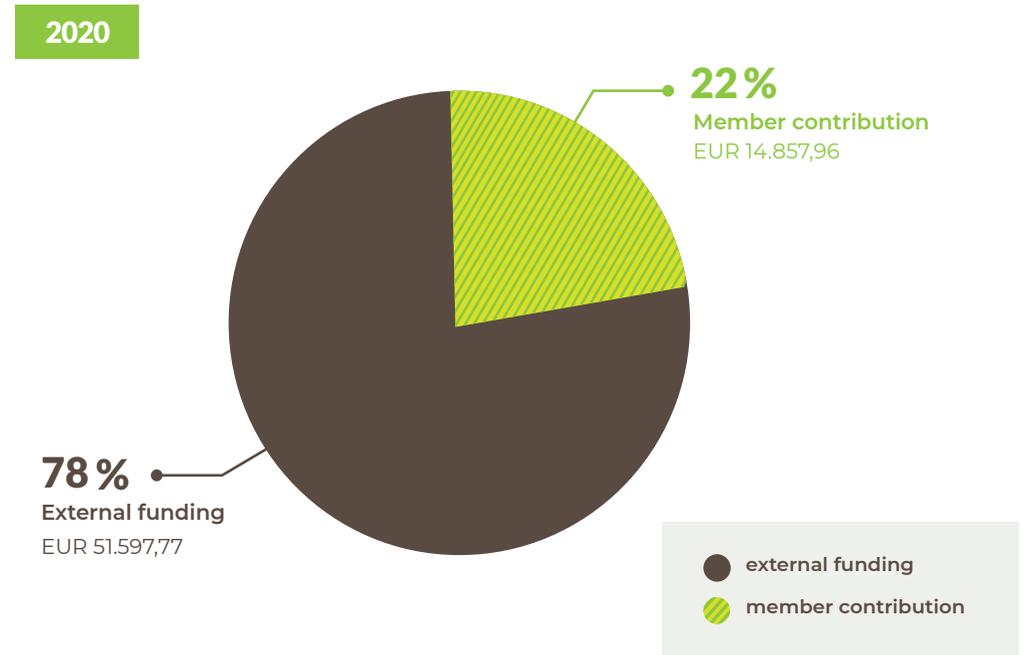


# Budget

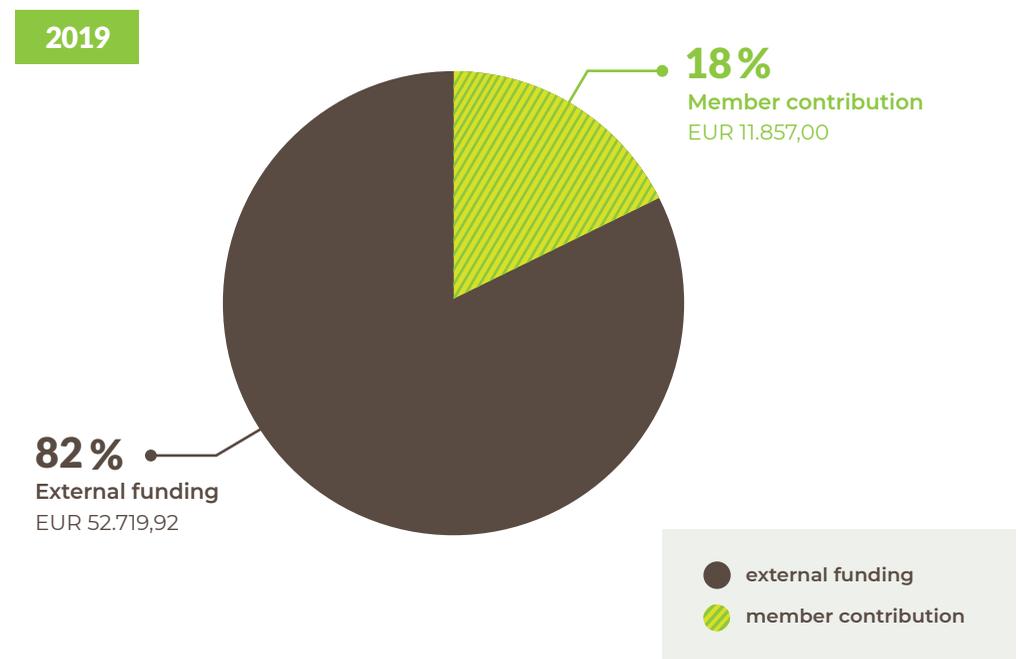
# Funds



▲ Figure 7. Funds 2021

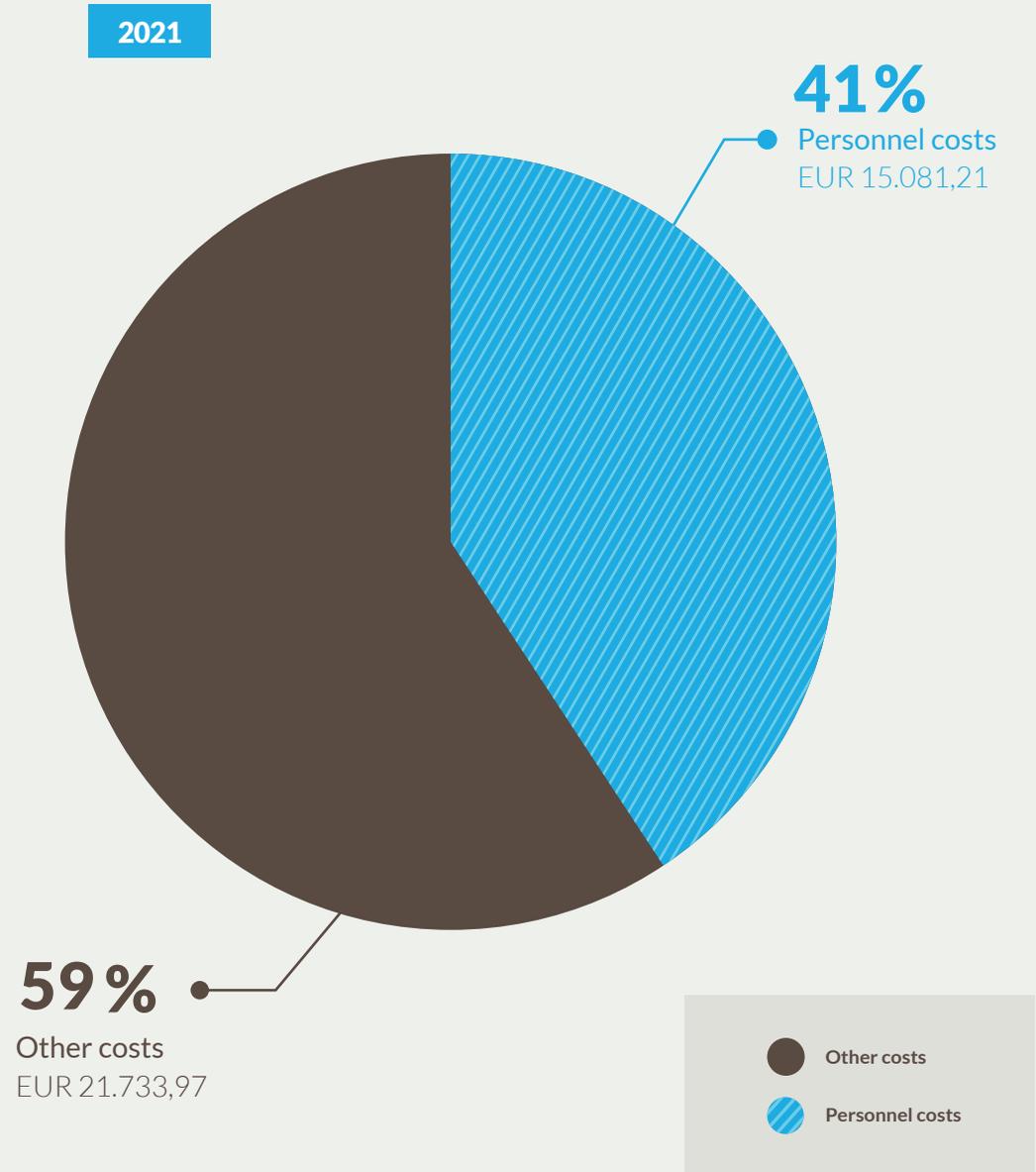


▲ Figure 8. Funds 2020

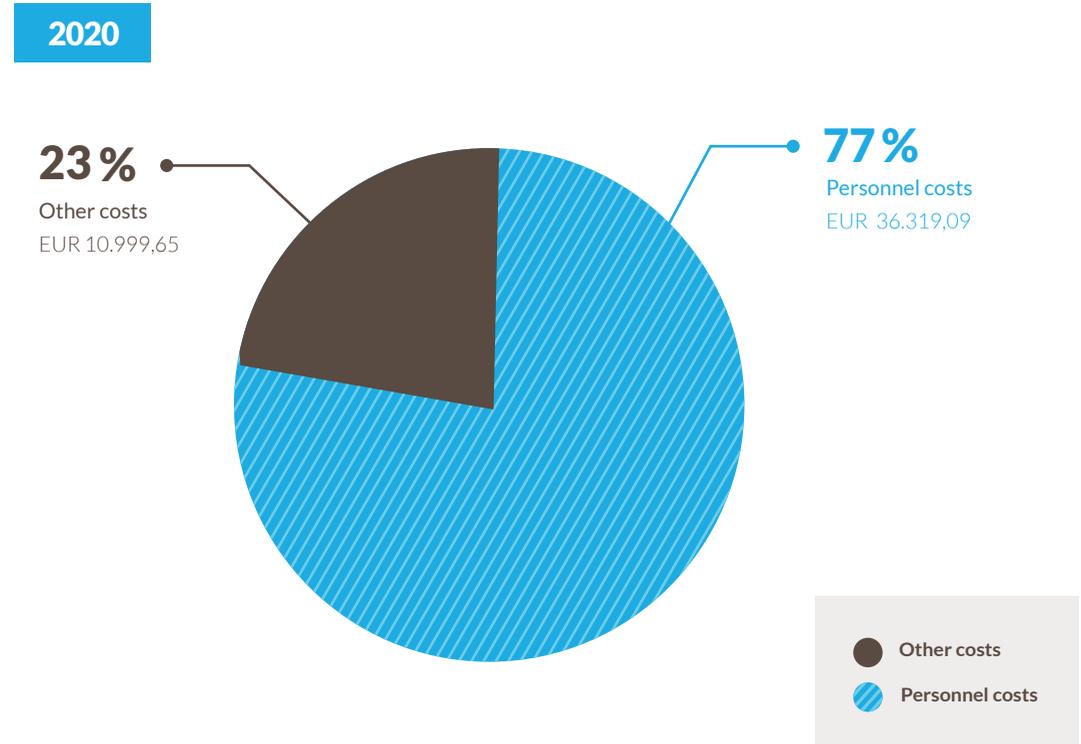


▲ Figure 9. Funds 2019

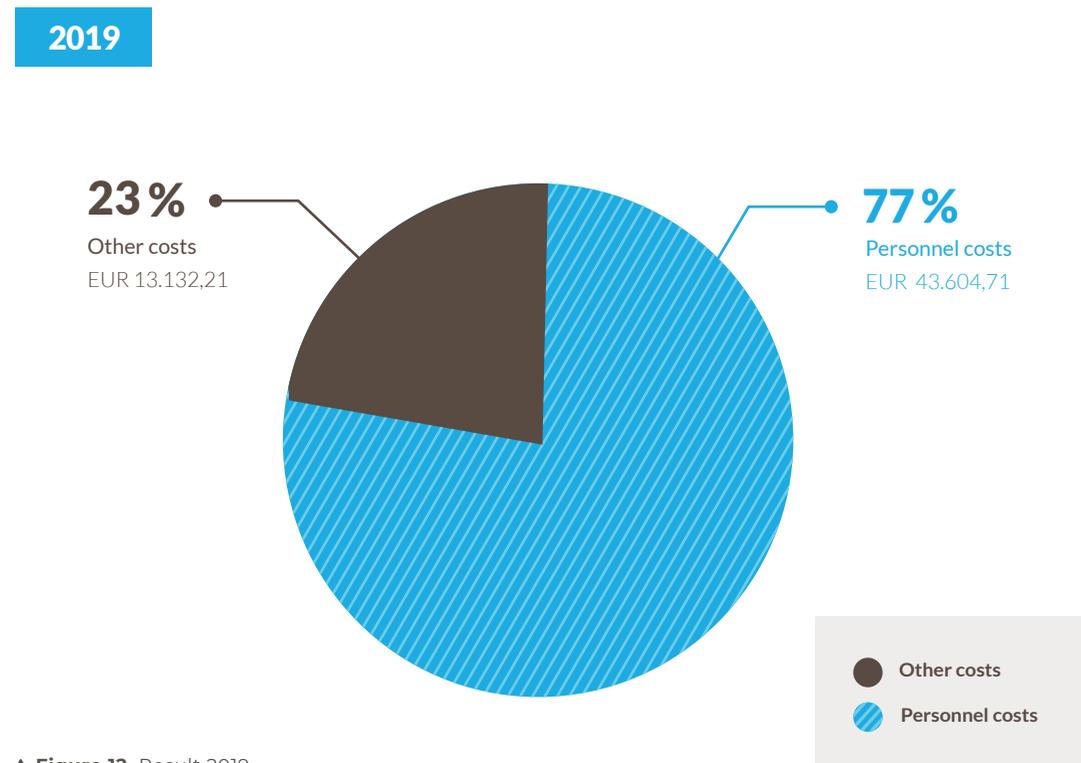
# Spending



▲ Figure 10. Result 2021



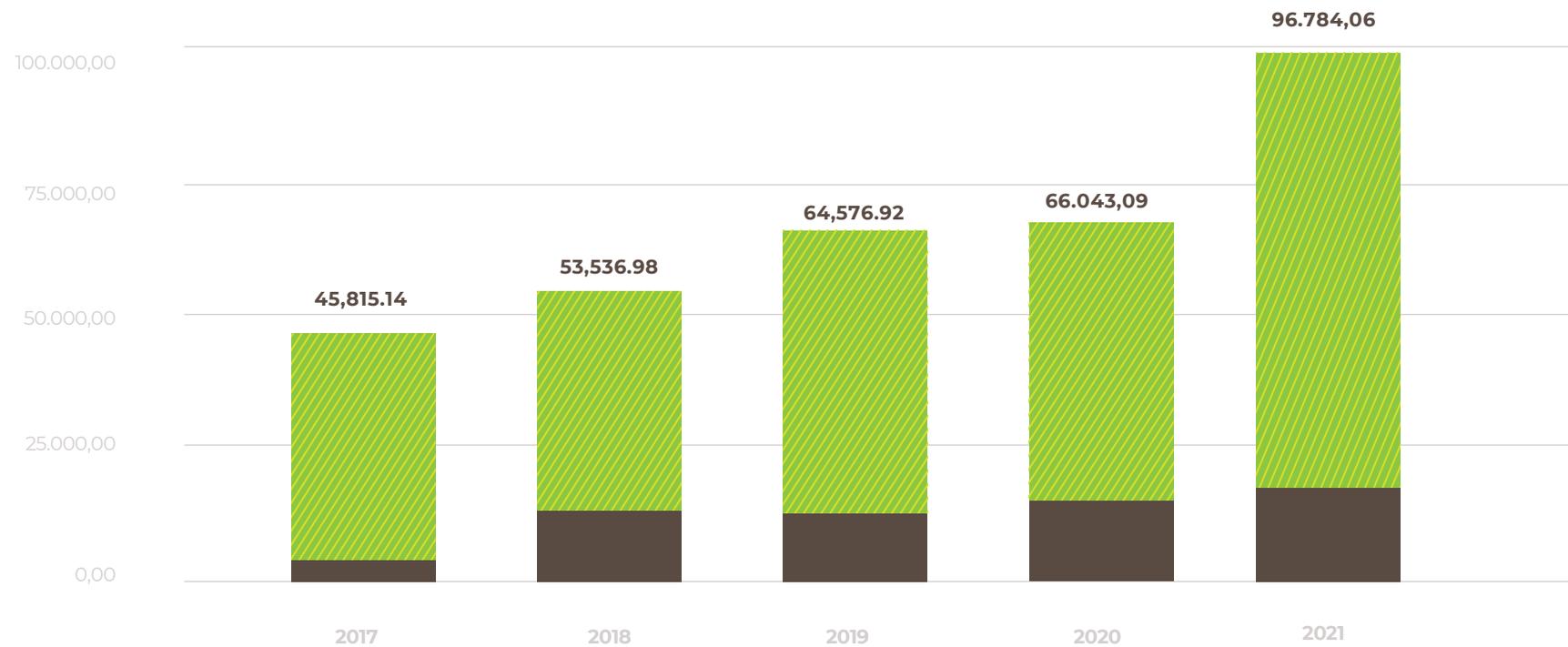
▲ Figure 11. Result 2020



▲ Figure 12. Result 2019

# Total revenue

	Result 2017	Result 2018	Result 2019	Result 2020	Result 2021
<b>Total revenue</b>	45.815,14	53.536,14	64.576,92	66.043,09	<b>96.784,06</b>
<b>Member fees</b>	4.429,00	13.139,76	11.957,00	14.445,32	<b>16.9095,86</b>
<b>Unrestricted funds</b>	41.836,14	40.879,22	52.719,00	51.597,77	<b>79.874,20</b>



▲ Figure 13. Total revenue 2017-2021

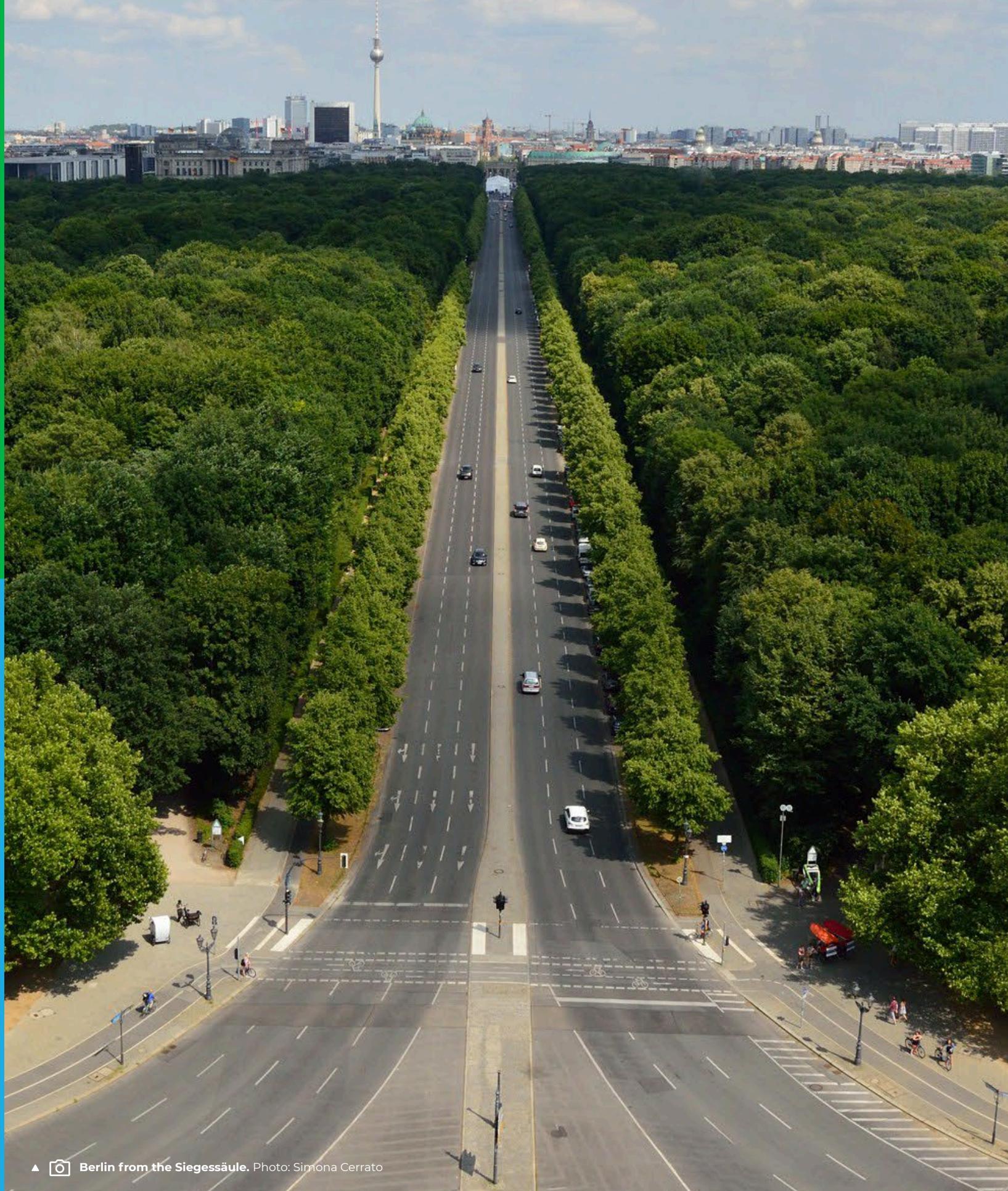
● Member fees ● Unrestricted funds



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**ECSA also thanks the Chairpersons and the Board of Directors, the Chairs and Members of the working groups, the Advisory Board and last but not least the ECSA members for their support for and commitment to the European Citizen Science Association.**





[ecsa-admin@citizen-science.net](mailto:ecsa-admin@citizen-science.net)



**European Citizen Science Association**

c/o Museum für Naturkunde Berlin  
Leibniz-Institut für Evolutions und Biodiversitätsforschung  
Invalidenstraße 43  
D-10115 Berlin, Germany

**ecsa** | European  
Citizen Science  
Association