

ANNUAL REPORT

2019



Address

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About this report

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Executive summary

Dear members,

As we continue to deal with the uncertainties and the challenges of 2020, we are pleased to share the annual report for 2019, which summarises the main activities carried out throughout the year and the most critical aspects of the organisation. This document allows us to be accountable to you, who, with your support, make it possible for ECSA to continue encouraging the growth of citizen science in Europe and beyond.

Intense work has been done throughout 2019, and here are the results: some of them are positive while others are challenging us to do better. New working groups have been created, while others have been modified in their scope, bringing the total number to nine, one more than in 2017. The number of members decreased compared to the previous year: 12% for organisational members and 20% for individual members. While this is expected in a non-conference year, the membership fees are an important source of income for the association and we should aim to see these numbers increase. However, thanks to our success in securing funding, especially from European projects, the budget of the association has increased: 18% more compared to 2018. Thanks to the effort of the ECSA team, the engagement on social media has been much higher than in the previous year. The vice-chairs, the board and the headquarters have worked to improve participation, communication and internal processes within the organisation, including initial work to update the statutes to better reflect the reality of the governance processes, and to open up a new possibility to engage with members.

There is still much to do, and we hope to continue counting with your confidence in the future because your presence and support will make us stronger and allow us to use citizen science to empower additional people to join the debate about the future. Thanks for everything,

Luigi Ceccaroni and Muki Haklay

Vice-chairs of ECSA (supporting)

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1. Organizational development

1.1 ECSA board

At the Annual General Assembly in 2018, the ECSA members voted in Luigi Ceccaroni, Muki Haklay, Soledad Luna, Andrea Sforzi and Svetlana Klessova as our Board of Directors. Svetlana Klessova acts as our treasurer.

At the start of 2019, the Executive Board was chaired by Lucy Robinson and Johannes Vogel. Lucy Robinson stepped down from her position on the Board of Director in 2019, however, the Annual General Assembly (AGM) 2 April in Brussels voted in Luigi Ceccaroni and Muki Haklay as co-Vice-Chairs to support the Executive Board.

Uta Wehn and Susanne Hecker joined the Board of Directors in 2019, being voted in by members via an online election.

1.2 ECSA headquarters

In 2019, the ECSA Headquarters employed the following staff:

- Gaia Agnello project officer (until June)
- Barbara Carneiro, student
- Claudia Göbel project officer (until June)
- Margaret Gold, project officer
- Marzia Mazzonetto, project officer
- Giulia Melilli, student
- Dorte Riemenschneider, managing director
- Simone Rüfenacht, project officer
- Tim Woods, project officer/communications and community officer

Due to the end of the DITOs project, Claudia Göbel and Gaia Angello have left ECSA. We are very grateful for their work, which has contributed greatly to building up the association.

1.3 Project funding

This year and at the same time as the annual general meeting, our first big project funded by the EU ends successfully after three fantastic and exciting years. Doing it together Science (DITOs) carried out by Claudia Göbel and Gaia Agnello was successfully completed. In this report, in "ECSA Projects", additional information about this project is listed.

ECSA is fortunate to receive support from the European Commission (EC) to fulfil its mission. In 2019 ECSA is involved/engaged in the following projects:

- **Doing it Together Science (DITOs)** is a three-year Project Action funded by the EC through its H2020 programme to increase awareness of and participation in citizen

science across Europe and beyond. It focuses on communication, coordination and support of citizen science activities. Through a wide range of events and activities, it promotes the sharing of best practices among existing networks for greater public and policy engagement with citizen science.

- **LandSense** aims to aggregate innovative Earth Observation technologies, mobile devices, community-based environmental monitoring, data collection, interpretation and information delivery systems to empower communities to monitor and report on their environment in the context of urban landscape dynamics, agricultural land use, and forest & habitat monitoring.
- **WeObserve** tackles three key challenges that Citizens Observatories (COs) face: awareness, acceptability and sustainability. The project aims to improve the 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 to move citizen science into the mainstream.
- **D-NOSES** aims to empower citizens through responsible research and innovation (RRI), civic science and co-creation tools to design odour control measures at the local, national and global levels, by working with civil society organisations (CSOs), non-governmental organisations (NGOs), local authorities, odour-emitting industries and universities.
- **PANELFIT** focuses on facilitating the implementation of the new European General Data Protection Regulation (GDPR) by developing a set of outcomes that will serve as operational standards and practical guidelines to reduce the ethical and legal issues of ICT technologies while fostering innovation and market growth.

In 2019 two new projects started, both funded by the European Commission:

- **EU-Citizen.Science** we were happy to start our three-year project, EU-Citizen.Science, in January 2019. The aim is to build and establish together with the community a functioning and well-attended Citizen Science Platform for Europe. It will be a place to share useful resources on citizen science, including tools and guidelines, best practices and training modules. This will make the knowledge created in Europe accessible to all and enable people to start their own citizen science activities.
- **Cos4Cloud** aims to integrate citizen science in the European Open Science Cloud (EOSC) ecosystem. Over four years, the project will co-design, prototype and implement new services that address the technological challenges shared by citizen observatories of biodiversity, based on the experiences of biodiversity platforms (e.g. Artportalen, Natusfera, iSpot, Pl@ntNet) and other environmental-monitoring platforms (e.g. FreshWater Watch, KdUINO, OdourCollect, iSpex and CanAir.io). These new services will be user-oriented, engaging a wide range of stakeholders in society, government, industry, academia, agencies and research in their co-design process.

1.4 ECSA guidelines and policies

Over the course of 2019, ECSA created and updated a number of organizational guidelines policies to steer the association in key areas over the coming years. These included the following.

- [ECSCA environmental guidelines](#): these identify where we, as an association, have a significant environmental impact (e.g. travel) and set out how we intend to reduce or remove this.
- [ECSCA social media policy](#): like many associations, ECSA uses social media to keep in touch with our members and share our news. This policy explains where and why we focus our communications resources (Twitter, Facebook, LinkedIn).
- [ECSCA style guide](#): this is an in-house document to ensure consistency in style (e.g. grammar, spelling) in all ECSA documents.
- [Guidelines for ECSA working groups](#): as the number of ECSA working groups rises, this document sets out some basic principles and requirements for all the groups.
- [Openness guidelines](#): we want ECSA to be an association that is open to all people, and these guidelines describe our six principles for achieving this.
- [Safe-space policy for ECSA events](#): this policy was developed by the Empowerment, Inclusiveness and Equity working group for the ECSA 2020 conference, and will be adopted for all future ECSA events to ensure that they provide a safe and welcoming space for everyone.

All these documents are available from the ECSA website. They are also all ‘living’ documents that can be revised and updated in the future. ECSA HQ staff intend to review each policy and guideline at least once a year, and ECSA members are invited to provide feedback or suggestions at any time. All ECSA policies and guidelines are published under a ‘Public Domain’ Creative Commons license, meaning they are available for others to use and adapt.

2. Membership

2.1 Individual and organizational members

As of December 2019, ECSA has 133 individual and organizational members from 30 countries, across Europe and beyond (Figure 1). In 2018, ECSA revised its membership figures for the first time and cleaned up the database (to remove non-paying members); as a result, we recorded a slight drop in numbers compared to 2017. ECSA generally gains more members in years where a conference is organized. This explains a consecutive drop in membership figures in 2019.

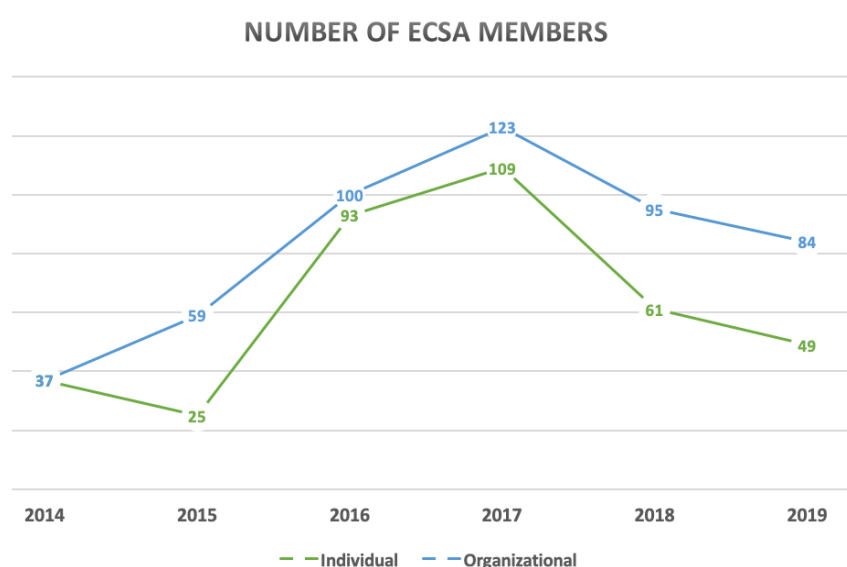


Figure 1. ECSA membership, 2014-2019

Compared to previous years, when about half of ECSA's members were individuals, we see a greater proportion of organizational members in 2019 (Figure 2). It seems that organizational members are better able to keep up their membership over a number of years; by contrast, individual members may see a shift in personal circumstances (e.g. a change of interests, a new job) that cause them to end their membership.

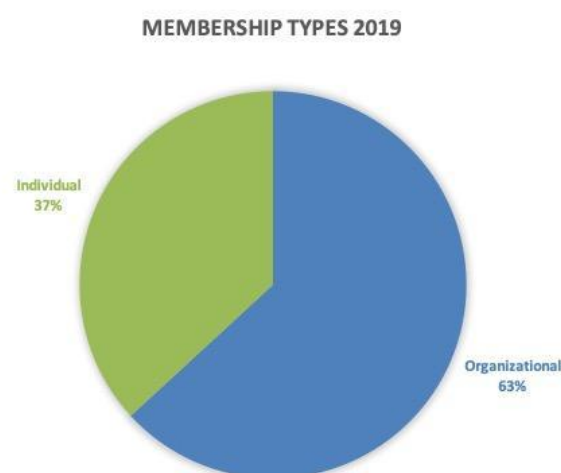
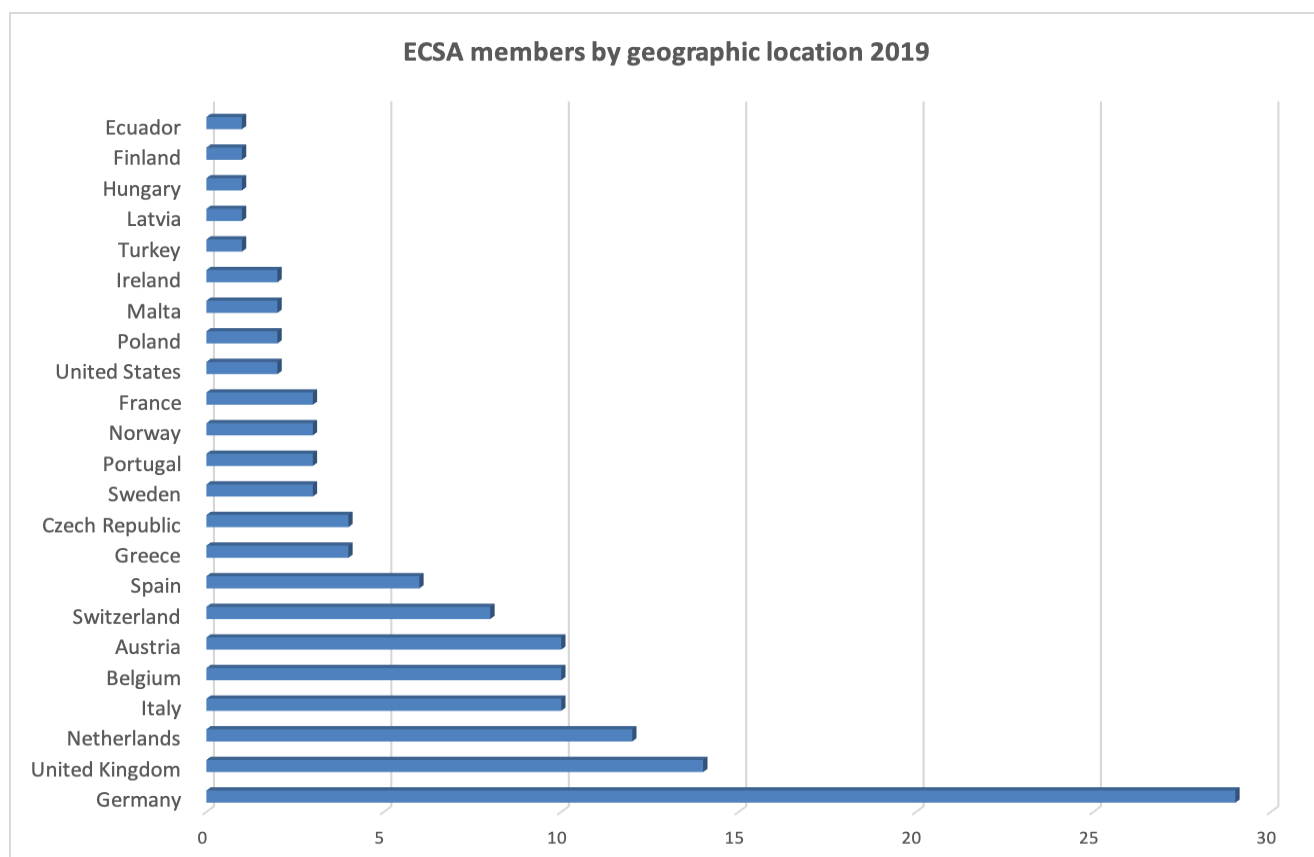
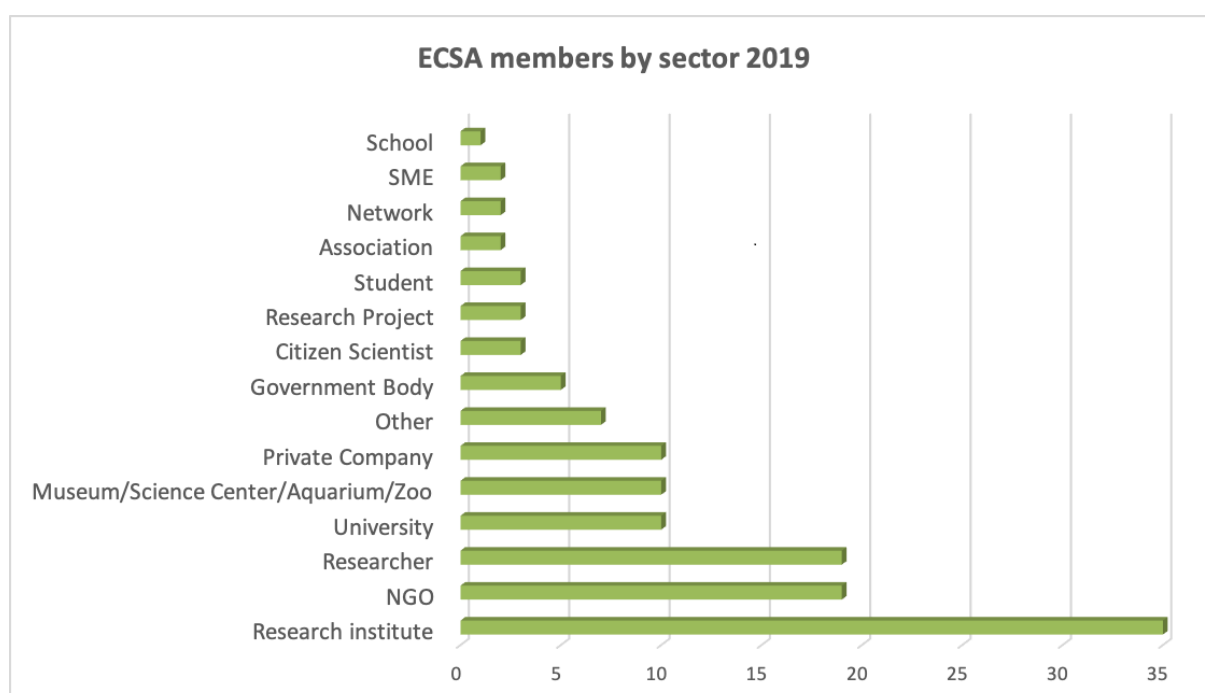


Figure 2. Membership by type, 2019

2.2 Membership by geographical location



2.3 Membership by sectors



3. Communication

Our online communications efforts increased in 2019. We saw growth in our social media activity and a steady level of engagement with our newsletters. Work also began on the new ECSA website, which will be launched during 2020.

3.1 Newsletter

ECSA sent out five newsletters during 2019, with subscriber numbers rising by 7% (from 1,700 in January to 1,825 in December). On average, 27% of subscribers open the newsletter, with an average click rate¹ of 10.2%: a figure that may seem low, but is above average. In 2018 the newsletter had 1699 subscribers, in 2017 1500 subscribers and 1151 subscribers in 2016.

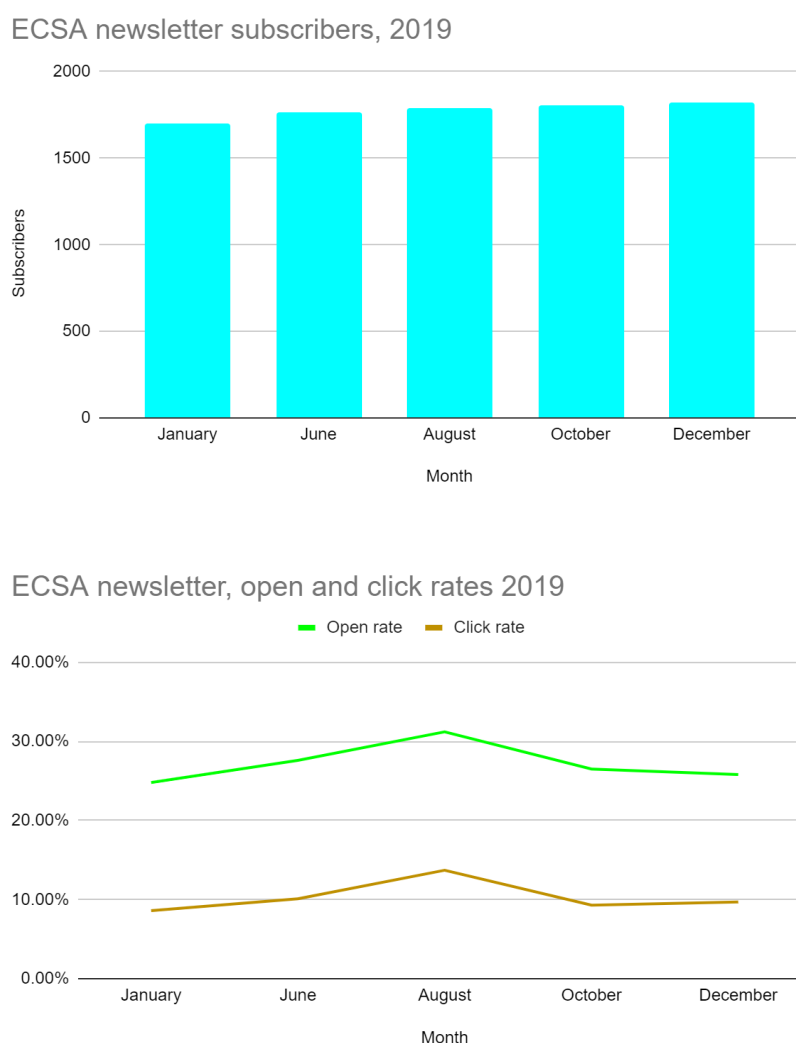


Figure 3. ECSA newsletter analytics, January-December 2019

Source: MailChimp.

¹ How many successfully delivered campaigns registered at least one click.

3.2 Social media

We saw strong growth in engagement on our two main social media accounts in 2019². Followers of our Facebook page increased by 40% (1,250 to 1,750), with a 30% growth in the number of ‘likes’ (1,200 to 1,554). Twitter, where ECSA is most active, saw a 54% increase in followers (1,900 to 2,923) and regular engagement to our tweets, in terms of retweets, replies and likes.

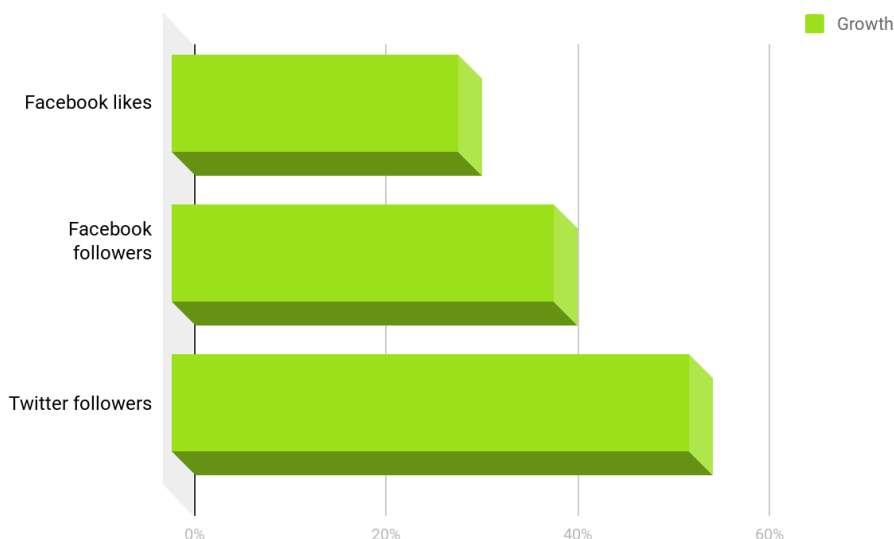


Figure 4. Growth across social media accounts

3.3 Website

Our main communications channel on the website is our blog. In 2019 we posted 17 times, including five pieces from ECSA members as guest authors. In 2020, we will be redesigning our website, to be launched before our third annual conference in September.

² February to December 2019.

3.4 ECSA Logo



Finally we have a new logo! Together with our member UCL under the direction of Muki Haklay and the [Hope Agency](#), ECSA has received a new logo. ECSA members voted between 2 alternative variants for the new ECSA logo.



**European
Citizen Science
Association**

Member



**European
Citizen Science
Association**

**Working
Group**

4. Events

The following events are a selection of those ECSA organised or participated in.

4.1 UNEA4 & Science Policy Business Forum

Nairobi, Kenya, 7 - 13 March

ECSA was represented by Dorte Riemenschneider and Margaret Gold as part of the Global Citizen Science delegation to the United Nations at the Science Policy Business Forum and UNEA 4 on the Environment. The delegation advocated for the mainstreaming of citizen science approaches at various events held within the ‘Citizen Science, policy frameworks, urban development, private-public partnerships’ streams. Together the delegation crafted a [Joint Declaration](#), which was presented on stage at the Science Policy Business Forum to all delegates by Anne Bowser of the Wilson Centre.

4.2 ECSA general assembly

Brussels, Belgium, 2 April

Held alongside the DITOs project’s final event (see below), the ECSA general assembly in 2019 took place at the Museum of Natural Sciences of Belgium, in Brussels, part of the Royal Belgian Institute of Natural Sciences (RBINS).

4.3 Expert discussion: Legal Frameworks of Citizen Science

Berlin, Germany, 21 May

This expert discussion was organised by the Museum für Naturkunde Berlin and the German Federal Ministry of Education and Research (BMBF) and was held in German. ECSA was represented at this event by Claudia Göbel, Dorte Riemenschneider, Simone Rüfenacht and Tim Woods. The aim of this workshop was to identify and define open legal questions around citizen science. After presentations on the legal aspects concerning citizen science by legal practitioners, three main themes were discussed: 1) copyright and intellectual property rights, 2) personal rights and data protection, and 3) insurance matters. A report of the outcomes of this workshop can be found [here](#) (only available in German).

4.4 Austrian Citizen Science Conference

Obergurgl, Austria, 26-28 June

ECSA was represented by Dorte Riemenschneider and Simone Rüfenacht at this annual Austrian Citizen Science Conference. The theme of the conference was “The limits of citizen science”. Dorte Riemenschneider presented ECSA as an association and also a poster on the recently launched EU-Citizen.Science project. Simone Rüfenacht presented the D-NOSES

project and highlighted that she was still looking for a German pilot study. After her presentation, she was approached by a representative from a German organisation about a potential participation in such a pilot study. The aim at this conference was to uphold and strengthen the bond between ECSA and the Austrian Citizen Science Association and to network with the mostly German-speaking attendees of the conference.

4.5 German Forum Citizen Science

Münster, Germany, 26-27 September

The annual German Forum Citizen Science 2019 was attended by Dorte Riemenschneider, Simone Rüfenacht and Giulia Melilli from the ECSA HQ team. At this conference, the ECSA team attended many interesting workshops that analysed the potential of citizen science for communication, how projects can be co-created in an efficient way and many other highly relevant topics. Dorte Riemenschneider presented ECSA and the EU-Citizen.Science project at the poster session. Simone Rüfenacht and Giulia Melilli showed a poster of the D-NOSES project and brought awareness to the issue of odour pollution through engaging with the attendees using olfactory sticks.

4.6 Citizen Science 'Science with and for Society' Cluster Meeting

Brussels, Belgium, 12 December

On December 12th, 2019, the REA Agency, in collaboration with DG R&I at the European Commission, organized a "Citizen Science cluster event", bringing together projects funded under the same theme - Citizen Science. Over 15 projects were present at the event, which represented a great opportunity to meet "sister projects" and colleagues engaged in citizen science in Europe, as well to promote ECSA activities and the leading role of the EU-Citizen.Science platform. Outcomes of the event also led to the drafting of some recommendations regarding the future of citizen science and citizen engagement, in cooperation with REA and the SwafS-funded projects. These recommendations were included in the report *Citizen Science and Citizen Engagement - Achievements in Horizon 2020 and recommendations on the way forward*, produced by the European Commission. Following a panel session with presentations from EC officers and invited projects, the cluster event held three interactive sessions, where participants were invited to provide their feedback on several aspects of citizen science and science engagement. Marzia Mazzonetto, EU-Citizen.Science project manager for ECSA, facilitated one of the sessions. ECSA's Dorte Riemenschneider and Margaret Gold also attended the event.

5. ECSA projects

5.1 Cos4Cloud

Cos4Cloud (co-designed citizen observatories for the EOS-Cloud) addresses the open science challenges shared by citizen observatories. 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), it will design, prototype and implement a series of services for improving the data and information quality.



This will be achieved using cutting-edge technologies such as deep machine learning, automatic video recognition and advanced mobile app interfaces, and based on data models and protocols validated by traditional science. The new services will also provide mechanisms to ensure the visibility and recognition of data contributors and tools to improve networking between stakeholders.

Citizen science is at the heart of this project: by integrating citizen science into the European Open Science Cloud, it will promote this to the scientific community and society at large. The design process will be user-oriented, engaging a wide range of stakeholders in society, government, industry, academia, agencies, and research to co-design service requirements. The project will run until April 2023.

ECSA activities and milestones

ECSA's main tasks are in Work Packages 6 (networking, training and capacity building) and 8 (communication, outreach and stakeholder engagement).

Next steps

Over the course of the project, ECSA will: identify potential platforms, projects and initiatives of interest for networking, and introduce them to Cos4Cloud; assist the Open University to identify best practices; disseminate to stakeholders at key academic and research conferences to present and discuss Cos4Cloud findings and outcomes; support the publicity of the project and recruit new citizen scientists through existing collaboration with ECSA; support dissemination at workshops and foster the participation of local stakeholders in different countries.

Contact

[Tim Woods](#), project officer

Twitter: [@Cos4Cloud](#)

5.2 D-NOSES



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

The [D-NOSES project](#), funded by the EC's H2020 programme from April 2018 to March 2021, aims at designing and testing a new bottom-up methodology incorporating citizen science in odour pollution management. The methodology will be tested in at least 10 pilot sites, where solutions to the local odour pollution will be co-created with all involved stakeholders, i.e. citizens, industries, local authorities, policy makers, researchers and NGOs. To support the spreading of information and knowledge around the issue of odour pollution, D-NOSES is also building the [International Odour Observatory](#), which has been co-created with citizens, policy makers and researchers across Europe.

To introduce the issue of odour pollution to the European policy agenda, D-NOSES will produce a green paper on odour pollution and a strategic roadmap on odour pollution. A DIY guideline outlining the methodology and lessons learnt from the project, will enable the embedding of this bottom-up methodology in odour-affected communities throughout Europe and carry this citizen science approach beyond the duration of the project.



ECSA activities and milestones

One of ECSA's main tasks in this project is the mapping of odour issues in Germany (WP4) and the leading of the German pilot study (WP5). The mapping of odour issues was completed and is now regularly being updated as new incidents/articles turn up. The ECSA team has been working hard to identify a suitable pilot study for the D-NOSES project within Germany and are close to finalising the negotiations.

ECSA also leads the policy-society scientific dialogues (WP4), the DIY guidelines for project replicability (WP6) and supports the advocating activities (WP6). ECSA has written a policy brief on odour pollution and significantly contributed to the D-NOSES Advocacy Action Plan, which is being finalised by MIO-ECSDE, a D-NOSES partner in Greece.

In addition, the ECSA team has designed and performed various co-design activities at different events throughout Europe for the building of the International Odour Observatory (WP3), led by the Mapping for Change team.

Throughout the project, ECSA is of course also providing communication and dissemination channels for the project outcomes within Germany and the ECSA network (WP7).

In 2019, ECSA has attended the D-NOSES consortium meetings in Porto, Portugal (14-16 May) and Brussels, Belgium (22-23 October), as well as the first review meeting in Brussels, Belgium (21 October).

Next steps

ECSA will finalise the negotiations with the different stakeholders to identify the most suitable pilot study area for D-NOSES within Germany. Engagement and training activities will be organised in this area and the data collection for this pilot study will run throughout summer 2020.

The first report on policy-society scientific dialogue (D4.2) is due at the end of May 2020, for which the ECSA team has started collecting information from all project partners. ECSA is also working on a structure for the “DIY guidelines for project replicability in odour conflicted communities” (D6.3), due at the end of the project (March 2021). This final deliverable of the project will be publicly available and will serve to carry the D-NOSES methodology forward and into many communities impacted by odour issues within Europe.

Contacts

[Simone Rüfenacht](#), D-NOSES project officer

[Giulia Melilli](#), D-NOSES student assistant

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5.3 Doing It Together Science



Doing it Together Science (DITOs) is a three-year Project Action funded by the EC through its H2020 programme to increase awareness of and participation in citizen science across Europe and beyond. It focuses on communication, coordination and support of citizen science activities. Through a wide range of events and activities, it promotes the sharing of best practices

among existing networks for greater public and policy engagement with citizen science.

DITOs supports existing and new projects across the landscape of citizen science, including:

- top-down projects in which people join an activity that is designed and coordinated by scientists
- bottom-up science activities in which people, scientifically trained or not, organise a research project around a problem of direct concern; this is sometimes known as DIY (Do It Yourself) science
- collaborative projects that scientists and participants create jointly.

Activities include undertaking actual citizen science, as ‘engaging by doing’ is central to the project’s efforts. Other activities, both online and offline, focus on communicating different facets of citizen science, from in-depth engagement with small, organised groups to large-scale engagement via social media.

The consortium includes UCL (which acts as coordinator), Tekiu, Eutema, Universite Paris Descartes, the University of Geneva, Kapelica Gallery / Kersnikova, Medialab-Prado, the Royal Belgian Institute of Natural Sciences (RBINS), Meritum Association, Waag Society and ECSA.

The DITOs project ended on 31 May 2019. For its final event, the DITOs team brought together a number of other citizen science projects to present, exchange and debate their ideas for Citizen Science.

During the project, the consortium built up a great network and community with DITOs, including several social media accounts. These social media accounts are being handed over to ECSA new citizen science project, [EU-Citizen.Science](#).

Contacts

Gaia Agnello, project officer

Claudia Göbel, project officer

Barbara Carneiro, student assistant

5.4 EU-Citizen.Science



The EU-Citizen.Science project has been funded by the European Commission Horizon 2020 programme, in the Science with and for Society programme of work (also known as SwafS). The mission of the project is rather ambitious – to become the reference point for citizen science through cross-network knowledge sharing for citizen science participants, practitioners, researchers, policy makers and society

across Europe.

The official launch of the EU-Citizen.Science platform is planned in April 2020. Once online, EU-Citizen.Science will be an online platform for sharing knowledge, tools, training and resources for citizen science – by the community, for the community.

The vision for the platform is to serve as a Knowledge Hub, in aid of the mainstreaming of citizen science, and build on the growing impact of citizens participating in research across the full range of scientific enquiry. The 23 partners involved in the project aim to accomplish this by supporting the sharing of knowledge, know-how, and experience between anyone doing or wanting to do citizen science.

On this platform you will find:

- Resources that are useful for citizen science practitioners
- Projects that are engaging the public in research via citizen science activities
- Training resources and materials citizen science as a practice
- Organisations that are involved in citizen science projects and research
- an Events calendar
- Community Forums for questions, conversations, and collaboration with the rest of the community.

The EU-Citizen.Science consortium consists of 14 partners and 9 third parties from across 14 European member states, as well as other project supporters. They represent a variety of stakeholders that are active in citizen science, including universities, non-governmental organisations, local authorities, community service organisations and museums. Several of them are ECSA members; in particular, five members are involved in the project as Third Parties of ECSA.

During the first year of the project, ECSA has been in charge of the platform development, in collaboration with the IberoCivis Foundation in Spain, and community building. While at the same time developing the rationale for the platform and reflecting upon its building blocks, ECSA has been working on making sure that the platform will address the community needs towards citizen science, through interviews with community members. ECSA has also contributed to the dissemination of project activities, liaising with the European Commission and leading a working group that brings together all citizen science projects funded by the SwafS unit. ECSA has produced a detailed stakeholder mapping, to foster a better

understanding of the types of users that the platform should envisage having, as well as community building plan, aimed at providing concrete propositions regarding how to involve community members, once the platform is online. These deliverables can be found online in the [project Zenodo repository](#).

Contacts

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Margaret Gold, project manager

[Tim Woods](#), communication officer

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Facebook: <https://www.facebook.com/EUCitSciProject/>

5.5 LandSense



LandSense is a four-year Research Innovation Action funded by the H2020 programme to **connect citizens with satellite imagery** to transform environmental decision-making, and to demonstrate the concept of citizen observatories. Running from September 2016 to December 2020 (extended), and with a budget of €5.7m, it is coordinated by IIASA (International Institute for Applied Systems Analysis) in Vienna, Austria, and supported by 18 partner institutions from nine European countries. The project aims to uncover the potential of citizen science and earth observation to improve the way we see, map and understand the world. The project's objectives are to:

- **assess** the current practices, user requirements and barriers of present land use and land cover (LULC) technologies, and illustrate the potential of citizen observatories
- **engage** key stakeholders in the LandSense platform, facilitating the collection, integration, management and presentation of LULC data
- **deliver** innovative and scalable services, and implement a strategy detailing the sustainable exploitation of these technologies post-project
- **demonstrate** the quality, confidence and benefit of citizen-driven observations and citizen engagement for improved LULC monitoring
- **promote** the uptake of LandSense technologies, solutions and products for large-scale LULC monitoring across the European Union (EU), using the LandSense Services Incubator.

LandSense held its first periodic review in Brussels on 15 May 2018. The project officer and the two external reviewers were very happy with progress and see great potential for achieving the anticipated outcomes.

ECSA activities and milestones

Deliverable 2.1

ECSA's primary role was to complete Deliverable 2.1: to assess user requirements, barriers and engagement strategies for the LandSense citizen observatory. This was completed in February 2017 and the remainder of ECSA's time is spent supporting the communication and dissemination of demonstration (demo) cases within work packages 4 and 6.

The LandSense Challenge

As part of its conference in Geneva, ECSA co-organised the LandSense Challenge, which targeted individuals, web entrepreneurs, start-ups and small and medium enterprises from all participating H2020 countries. Six teams from four European countries presented ground-breaking ideas for: monitoring water levels; optimising bioenergy potential; agricultural satellite monitoring; land-surface temperature monitoring; automated monitoring of LULC; and change-detection mapping. Participants took part in 'boot camp' sessions led by LandSense partners, with topics including sentinel hub services, citizen science and idea-pitching skills, thereby encouraging contributions to earth observatories, citizen science and investor communities.

First prize went to Rosalie van der Maas and Daniel van der Maas for 'Bird's AI - Automated Monitoring of Land Use and Land Cover'. They received a one-year subscription to Sentinel Hub Enterprise (worth €5,000) provided by Sinergise, online business coaching and mentorship services provided by InoSens, and a grand prize of €1,500.

On 7-8 November, the LandSense consortium held their second annual workshop at IIASA to move forward to the next project deliverables and present the demo cases and platforms that have been successfully launched:

1. Vienna green space monitoring - [CityOasis mobile app](#)
2. Amsterdam Rembrandt Park - [Mijn Park mobile app](#)
3. Toulouse LULC monitoring - [Paysages mobile app](#), [Paysages web app](#), [Laco-wiki](#)
4. Heidelberg/OSM land use mapping - [OSMlanduse](#), [Laco-wiki](#)
5. CropSupport for farm management - [CropSupport mobile app](#), [CropSupport web app](#)
6. Biodiversity threat monitoring - [NaturaAlert mobile and web app](#)
7. LandSense engagement platform - [LEP](#) platform

Contact

Margaret Gold, project officer

Twitter: [@LandSense](#)

5.6 PANELFIT



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 commercialisation and security/cybersecurity issues. It is producing outcomes that includes: 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.

Ultimately, PANELFIT will provide its target end-users (researchers, innovation services, data protection officers and policy-makers) with operational standards and practical guidelines that minimise the ethical and legal issues posed by ICTs, while promoting the innovation and market growth that will create high-quality jobs and ensure high levels of privacy and security/cybersecurity. These standards and guidelines are shared through monthly chats, newsletters, massive online open courses (MOOCs), face-to-face courses and public discussions.

ECSA activities and milestones

In 2019, ECSA took part in a workshop on governance held in Brussels in May, and in June attended three workshops in Bilbao on: data commercialisation; ethical and legal challenges of new ICT and security and cybersecurity; and ethical and legal issues of data processing and AI in ICT research. During the second half of 2019, our focus shifted to support preparations for an end-users' workshop (to be held in Madrid in March 2020) and contributing to the governance report that forms a major project deliverable. Alongside CSIC-ICM, COST Action 15212 and EU-Citizen.Science, ECSA is also hosting a workshop to guide the citizens' information pack that will be of particular interest to citizen scientists; ECSA will also lead on the production of a tailored version of this pack for vulnerable groups. Tim Woods represented ECSA at the consortium meetings in Brussels (May) and Bilbao (November) during 2019.

Next steps

Our priority in 2020 will be to host the workshop to gain inputs for the citizens' information pack, and verify the outcomes of this at our conference in Trieste. We will also continue to support project partners with other tasks, such as writing the governance report and raising awareness of the project among the target stakeholders. Tasks in 2019 will include gathering ideas for the citizens' information packs: who these groups are and what their specific requirements are. Consortium meetings are planned for May (Barcelona) and also later in the year (location to be confirmed).

Contact

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5.7 WeObserve



Rising trends in citizen science have led to the development of citizen observatories focused on **engaging citizens in environmental monitoring** across Europe. WeObserve is “an ecosystem of citizen observatories for environmental monitoring” and is

funded under the H2020 EU.3.5.5. programme as a Coordination and Support Action to **consolidate knowledge** and **improve collaboration** between existing citizen observatories and related regional, European and international activities.

The WeObserve project launched in December 2017 with a primary mission to move citizen science into the mainstream by building a sustainable ecosystem of Citizen Observatories (COs) and related activities. The WeObserve consortium brings together the current H2020 COs (Ground Truth 2.0, GROW, LandSense, Scent) to actively open up the citizen science landscape through wide ranging networks, users, and stakeholders, including ECSA, GEOSS, and Copernicus, to foster social innovation opportunities.

WeObserve tackles key challenges around awareness, acceptability and sustainability, aiming to create a sustainable and vibrant ecosystem of citizen observatories to advance citizen science into the mainstream of environmental monitoring. The four WeObserve Communities of Practice have been assessing the current knowledge base and strengthening it to address future environmental challenges, using science driven by citizen observatories.

In 2019, WeObserve published a **seminal piece** on CS and the SDGs: [Citizen science and the United Nations Sustainable Development Goals in Nature Sustainability](#). The conception and development of the paper were largely supported by WeObserve, substantiating the leading role of Europe in the integration and uptake of citizen science in implementing the SDGs.

The Interop-CoP realised its first **Interoperability Experiment** and spearheaded the formulation of the “[Lisbon Declaration](#)”: a document that sets a roadmap for the European contribution of the Citizen Science and the Citizen Observatories in GEOSS.

WeObserve finalised the development and started the delivery of the first iteration of the WeObserve **MOOC**: “[Citizen Science Projects: How to make a difference](#)” with over 700 learners from 93 countries.

ECSA activities and milestones

ECSA leads the task to map and report on the EU landscape of existing citizen observatories initiatives, relevant communities and their interactions. The first report ‘[EU Citizen Observatories Landscape Report – Frameworks for mapping existing CO initiatives and their relevant communities and interactions](#)’ that was published in November 2018, will be followed by a second report that will be delivered in the final year of the project.

WeObserve together with the EC successfully planned and implemented the joint CO event “[Observing the Environment - Challenges & Opportunities in Citizen Science](#)” at the EC, bringing together 43 representatives from COs and the CS community as well as EC representatives working closely with citizen science initiatives to discuss CO and CS challenges, recommendations and solutions for current and future initiatives. ECSA was represented at this event by Margaret Gold in her role as Project Officer in WeObserve, who helped to facilitate, and co-authored the resulting Policy Brief ‘[Mission Sustainable: Fostering an enabling environment for sustainable Citizen Observatories](#)’ that makes four specific recommendations to European and national funding bodies.

Contact

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ECSA working groups

6.1 Air quality

Co-chairs: Nuria Castell & Lukas Mocek

The ECSA WG Air Quality was born in 2019, and during that year we focused part of our activities in welcoming new members through our [mailing list](#) to actively participate in sharing their citizen science initiatives and establish contact with other citizen science practitioners in our monthly meetings. The goal of the meetings is to become a collaborative platform where scientists, technologists, grass-root movements, NGOs, citizens and other interested actors can share knowledge on citizen science for air quality.

During 2019, the ECSA WG Air Quality organized the first European Clean Air Day, ECAD (<https://cleanairstay.eu/>), with the aim to engage more citizens in Europe in air quality monitoring and increase awareness about the link between air pollution and health. During the ECAD we invited citizens to join in monitoring air quality using low-cost sensor devices, but also low-tech methods as paper and Vaseline. We collected measurements around Europe, in Norway, Portugal, Hungary, Netherlands, etc. The ECAD day took place as a combination of on-line participation activities and also live activities in many places around Europe. In Utrecht (Netherlands) people joined the monitoring campaign mounting sensors on their bikes, in Thessaloniki (Greece) people participated in co-creation workshops around the topic of air pollution, in Ispra (Italy), JRC organized an activity around mounting low-cost sensor devices, in Warsaw (Poland) people participated on a workshop organized by Sensor.Community on air quality data analysis.

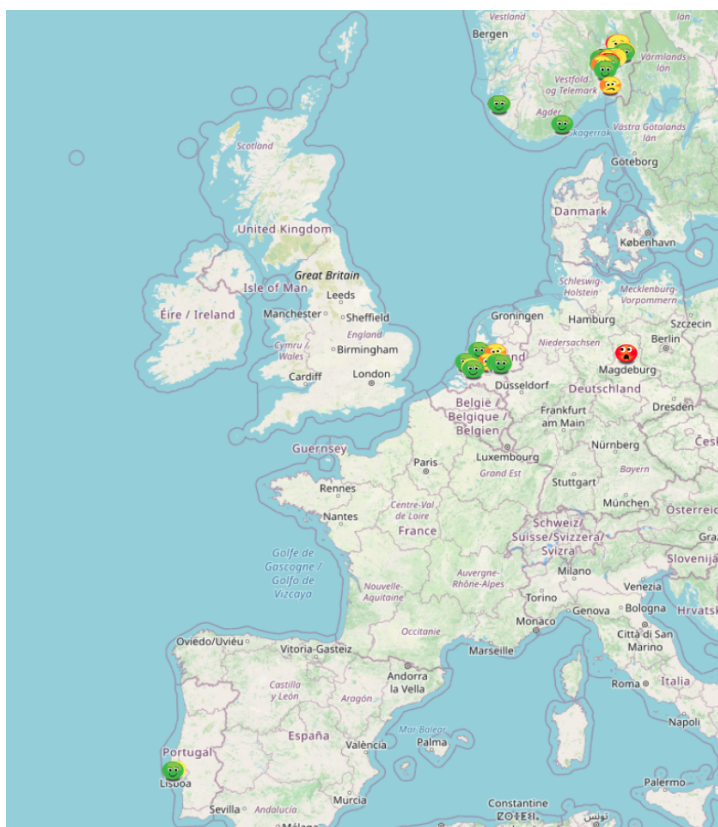


Figure: Map showing the measurements collected during the [European Clean Air Day 2019](#) using the paper and Vaseline method

6.2 BioBlitz

Co-Chairs: Gaia Agnello & Matt Postles

The BioBlitz working group was created in 2017 outlining a 3-years' work plan for 2017, 2018 and 2019. Some activities were planned to run in association with the DITOs project, which ended in May 2019.

The main aim of the WG is to build a European BioBlitz network, facilitate the sharing of best practice and capacity building for organisations using BioBlitz formats in their work. Over the three years the group has strived to achieve the aim, dedicating effort and resources throughout a series of activities.

The activities carried out in 2019 are mainly under two lines: discussing the future of the working group after DITOs and finalizing the draft of the DITOs research insight on the case study of City Nature Challenge 2018.

The future of the BioBlitz WG after DITOs

Given the attention the WG has gained over the years, it was decided unanimously to maintain the WG after DITOs. The main discussion took place at the WG meeting organized on 3rd April 2019 at the Royal Belgian Institute for Natural Science in Brussels, on occasion of DITOs final event and ECSA GA.

It was decided that the group should continue to be active and seek out opportunities for further cross border collaboration where practical – possibly in the form of co created projects and/or joint funding bids to access dedicated resources. In the absence of dedicated resources from the DITOS project, the group recognized that there would be an inevitable drop in the level of activity, compounded by various external political factors affecting institutional priorities and resources.

In the time since the April 2019 meeting suitable resources for dedicated cross border project activity have not been identified, however group members remain ambitious and have kept active and connected through the global City Nature Challenge initiative led by colleagues in the USA.

DITOs research insight

In 2018, the WG secured extra effort through COST Action “Citizen Science to promote creativity, scientific literacy, and innovation throughout Europe” to conduct activities with the WG. ECSA and BNHC have hosted Simone Cutajar (Greenhouse, Malta) through a Short-Term Scientific Mission to develop an evaluation tool for BioBlitz participants and organisers to be piloted during the City Nature Challenge (CNC) 2018, the first international edition of this initiative.

As a result of such collaboration between the members of the WG, we have produced the DITOs Research Insight “*Evaluating public engagement with biological recording events – Case study of City Nature Challenge 2018*”. The research insight was part of DITOs deliverable 4.2 and followed up the first policy brief on BioBlitz (policy brief #1).

The research insight was initially produced as a comprehensive report including the methodology used for developing a common evaluation framework for BioBlitz and similar public engagement with biological recording (PEBR) events; results of the evaluation conducted for events of the CNC; and case studies of all the initiatives organized in Europe using the CNC as a case study.

Such report of the research was subsequently synthesized as a 4-pages DITOs research insight by the Co-chairs and a core group of WG members; formatted by colleagues of University of Geneva (DITOs partners) into the 4-pages template of the DITOs research insights and policy briefs collection; and made available on Discovery, the UCL open access repository where all DITOs output have been published.

The outline of the research insight includes:

- Executive summary
- The European BioBlitz Network
- Defining different Public Engagement with Biological Recording (PEBR) formats
- Challenges with evaluating PBER events and the need for a common evaluation tool
- Methodology for developing a common evaluation tool
- Results from the ethnographic observations
- Outcomes and indicators used in the common evaluation framework
- Case examples from the following PEBR formats:
 - 24-hours BioBlitz in London, UK
 - Guided nature walks in Padova, Italy
 - Mini-BioBlitz in Guimaraes, Portugal
 - Nocturnal species survey in Berlin, Germany
 - Biomaraton and ID party in Madrid, Spain
 - Wildlife survey teams in Bristol & Bath, UK
- Conclusions
- Recommendations

Research insight is available at <https://discovery.ucl.ac.uk/id/eprint/10094767/>

What next for European BioBlitz?

The success of the BioBlitz working group has relied heavily on dedicated capacity through the DITOS project, particularly in staff time for coordination and production of materials and travel costs for bringing members together for face-to-face meetings. In the absence of this resource activity has been slow to progress.

However, in the wake of the COVID-19 pandemic, with an emerging culture of virtual meetings and reduced travel, there may be an opportunity to reinvigorate the working group as an online network with a much-reduced financial need. As BioBlitz formats continue to evolve and incorporate new technologies and platforms, there is still a need and appetite for a community of practice around public engagement with biological recording at a European scale.

6.3 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 maximize the long-term impact of their programmes.

6.4 Citizen Science Networks

Co-Chairs: Daniel Dörler & Florian Heigl



The working group "Citizen Science Networks", which was founded at the General Assembly in April 2019, has the goal to frame transparent criteria that help national citizen science networks to decide, in a transparent and impartial way, if a project should be listed as citizen science on their platforms or not. In several online meetings first steps were taken towards this goal. At the beginning the process on how to find such criteria and to be as open as possible was discussed. The working group decided to have a literature research on already existing characteristics and criteria. Since the goal is to have measurable and easy to understand criteria, project

leaders from citizen science projects and the general public of the countries represented in the working group will be consulted in several steps of the process, if they are not part of the working group already. To facilitate this involvement, the necessary documents will be

translated into the respective languages to avoid exclusion due to language barriers. The second step taken in 2019 was to start a literature research on characteristics and criteria for citizen science. In 2020 the collected characteristics and criteria will be grouped and refined in a transparent process. A text on how the working group is going to proceed and on how to get involved will be drafted and put online in order to be as transparent as possible.

6.4 Conference

Chair: Enrico M. Balli

The main focus of the ECSA conference working group in 2019 was preparations for the third international ECSA conference, to be held in Trieste, Italy, in May 2020.³ In May, Dorte Riemenschneider and Tim Woods from ECSA HQ were welcomed warmly by the local organizing team in Trieste, visiting the main conference venue, the Stazione Marittima, as well as other sites around the city. The call for submissions was launched soon afterwards, and remained open until the end of September. In total, we received 300 submissions, which demonstrated the high, and widespread, interest in the conference. The remaining months of 2019 were spent reviewing submissions, preparing the conference programme, planning side events, and approaching sponsors for the event.

6.5 Empowerment, Inclusiveness, Equity

Co-chairs: Claudia Göbel, Michael Søgaard Jørgensen and Athanasia Nikolaou

The working group was set up at the General Assembly in ECSA in Geneva June 2018 in cooperation with the Living Knowledge Network for science shops and community-based research. The background for the group is a joint interest from the field of citizen science and community-based research for increased cooperation, exchange of experiences and development of methods - which is one of the three strategic pillars in the ECSA strategy. This, we hope, will contribute to strengthening the focus on empowerment of civil society as focus and impact of citizen science activities.

Our activities in the calendar year 2019 include:

- **Sharing information through [our mailing list](#)**, e.g. calls for participation, partnerships or publications, job adds, relevant literature, interesting events.
- **Regular online working group meetings** to discuss joint activities, learn more about each other's work and shape how we work together.
 - [Agenda / minutes for the meetings here](#).
 - During 2019 we had 10 online working group meetings with 1-2 presentations each time by working group members about their activities

³ This conference was eventually held online in September 2020, as the COVID-19 pandemic in 2020 prevented it from being held in Italy.

- **Organising face-to-face workshops** for exchanging of experience and creating resources together
 - 1-2 February 2019 we organised the [workshop "Empowering civil society through participatory investigation?"](#) in Marne-la-Vallée in France together with the LISIS lab and the ALLISS network.
 - We have organised a face-to-face [working group meeting on 2 April 2019 in Bruxelles](#) before the ECSA General assembly 2019. This meeting included a session with sharing of experiences with citizen participation and empowerment from citizen science and other participatory activities and a working session where we started working on joint projects that the working group members agreed upon. The A) an analysis of experiences with empowerment, inclusiveness and equity in citizen science; B) guidelines on how to make conferences more inclusive; C) music as part of citizen science - organised through The Metalliferous Hills Jug Band. The workshop also initiated a more intense cooperation between our working group and the ECSA Working Group Air Quality.
- **Collecting literature and case studies** - on empowerment, inclusiveness and equity in CS and CBR > we are [building a collection on GDrive](#)
- **Co-creating the purpose and activities of the working group**

We have shaped the working group, its way of working and its activities by asking for member input on the draft working group description

All ECSA members are warmly invited to **subscribe to [our mailing list](#), share experiences from their work, join our regular online and face-to-face working group meetings** and more - please find out how to get involved [through our website](#) and/or get in touch with Claudia (claudiagoebel@posteo.de), Michael (msjo@plan.aau.dk) or Athanasia (athanasia.nikolaou@protonmail.com)

6.6 Learning and education in citizen science

Chair: John Harlin; co-chairs: Julia Lorke and Rick Hall

The WG aims to facilitate collaboration between and increase the use of citizen science by school and higher education teachers; educators from museums, community spaces and after-school activities; educational researchers; scientists; and other communities interested in developing the informal learning and educational aspects of their citizen science projects.

1) Our primary action over the last year was to organize a COST-supported workshop in Leysin in March 2020. The workshop was to be focused on “Citizen Science for Climate Education and Action”. This workshop was to develop a resource-based website intended to support teachers interested in using citizen science for climate research and action with their students.

The workshop was cancelled at the last minute when the hosting school (Leysin American School) cancelled all visitors due to the coronavirus outbreak. This was days before sending all students home.

Several of the would-be participants continued to contribute online. We'd hoped to complete the work online, but momentum was lost during a tumultuous period. John Harlin (outgoing WG chair) intends to continue this project because he feels it has very high value. Timing has not yet been set.

[Here is the working plan that was developed in March 2020.](#)

[Here is the working website that will be developed into a usable product in 2021.](#)

2) ECSA Webinar - Online Citizen Science & Learning

Hour-long webinar addressing "What do we know about participation and learning in online Citizen Science projects? Researchers share their insights from recent studies." Held on 11 June 2020.

Link:

<https://www.eventbrite.de/e/ecsa-webinar-online-citizen-science-learning-registration-108083803566#>

[Here is the ECSA Working Group on Learning and Education's website](#), which has not been used much.

We created this website for the Working Group. Anyone is welcome to visit it, but it's intended purely for internal communication. We're using the site to circulate surveys that solicit recommendations for citizen science projects that are specifically useful in the classroom and in outside learning. Visitors are asked to use the form "Survey of CS projects" on the top bar. <https://sites.google.com/view/citizen-science-education>

6.7 Policy

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.

It seeks to promote the benefits and impacts of Citizen Science to policymakers and those who influence them, to collect case studies and research evidence about policy outcomes of Citizen Science activities, as well as to represent policy-related goals and achievements to ECSA's members and governance structures.

6.8 Projects, Data, Tools and Technology

Chair: Jaume Piera

This Working Group is trying to formalise a common understanding of interests in the citizen science data space by analysing problems that citizen science projects face regarding data, such as interoperability, data reliability (e.g. how citizen science data can be trusted and plugged into environmental regulation and monitoring requirements from governments), privacy and data intellectual property rights.

To do so, it is establishing collaborations with other technical organisations such as the Open Geospatial Consortium (OGC), Biodiversity Information Standards (TDWG) and the Group on Earth Observation (GEO); other citizen science associations, especially via a liaison with the Citizen Science Association (CSA) international working group on citizen science data and metadata; and relevant initiatives, including the COST Action 15212 on citizen science, and the WeObserve community of practice on interoperability. It is also participating in the H2020-funded PANELFIT project.

In the highly dynamic and fluid situation of citizen science standards and technologies, it became increasingly important to ensure the interplay and exchange between the above-mentioned initiatives, and to follow an inclusive approach in which the members of the different existing groups work in close collaboration. The activities of this working group follow this principle and illustrate how we could establish successful working relationships.

Summary of activities

The activity of our working group has been mostly focussed on 3 main points:

- **Interoperability.** Mostly developed in the framework of the COST Action [CS-EU CA 15212](#). The main output of this activity was the book chapter "A Conceptual Model for Participants and Activities in Citizen Science Projects". Authors: Rob Lemmens, Gilles Falquet, Chrisa Tsinaraki, Friederike Klan, Sven Schade, Lucy Bastin, Jaume Piera, Vyrion Antoniou, Jakub Trojan, Frank Ostermann, and Luigi Ceccaroni. In the book "The Science of Citizen Science".
- **Legal and ethical aspects of the citizen science data.** Participation in the Citizens' Information Pack, within the context of the H2020 Panelfit project, in collaboration with the H2020 Eu-Citizen Science project.
- **Connection with the European Open Science Cloud (EOSC).** We are promoting Citizen Science as a discipline to be integrated into the EOSC. In the context of the H2020 Cos4Cloud project, several services have been developed to improve collaboration among different citizen observatories.

7. Finances

7.1 Financial Development ECSA

	Result 2016	Result 2017	Result 2018	Plan 2019	Result 2019
Total revenue	24.354,18	45.815,14	53.536,98	61.175,00	64.576,92
membership fees	10.170,00	4.429,00	13.139,76	13.000,00	11.857,00
unrestricted funds	14.184,18	41.386,14	40.397,22	48.175,00	52.719,92
			**(old 37.497,89)		
Personnel costs	14.184,18	34.437,98	36.955,10	45.000,00	43.604,71
Other costs	4.152,78	4.774,32	14.660,62	19.000,00	13.132,21
write off property	0,00	339,44	0,00	0,00	0,00
third parties	1.179,88	1.868,63	8.329,74	10.000,00	8.485,20
generell administration	753,63	848,67	4.040,58	5.000,00	1.627,51
travel cost	2.219,27	1.717,58	2.290,30	4.000,00	3.019,50
Total expenses	18.336,96	39.212,30	51.615,72	64.000,00	56.736,92
Annual balance	6.017,22	6.602,84	1.921,26	-2.825,00	7.840,00
		*(old 7.913,04)	*/**(9.291,51)		
Contingency reserve	1.358,21	7.961,05	9.882,31	7.057,31	17.722,31

* Correction (48,01€) of the association's contingency reserve when carrying forward to 2017.

** Correction (542,79€) in the personnel costs 2018.

7.2 Financial Development Projects

Plan		LandSense	DITO	WeObserve	D-Noses	EU-C.Sc.	Panelfit	Cos4Cloud	totals
		EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
	Overall budget	105.000,00	383.750,00	84.000,00	219.250,00	241.875,00	98.750,00	151.000,00	1.283.625,00
	personnel costs	72.000,00	210.000,00	60.000,00	147.400,00	187.000,00	66.000,00	105.400,00	
	other costs	12.000,00	97.000,00	7.200,00	28.000,00	6.500,00	13.000,00	15.400,00	
	unrestrictres funds	21.000,00	76.750,00	16.800,00	43.850,00	48.375,00	19.750,00	30.200,00	256.725,00
Result by 31. Dec. 2019	Overall budget	105.000,00	383.750,00	84.000,00	219.250,00	241.875,00	98.750,00	151.000,00	1.283.625,00
	past expenses	66.086,35	303.686,93	56.647,29	88.028,13	55.963,92	22.362,70	1.974,51	594.749,83
	personnel costs	58.900,84	217.433,68	50.861,22	79.227,86	53.616,82	19.219,44	624,98	
	other costs	7.185,51	6.353,90	5.786,07	8.800,27	2.347,10	3.143,26	1.349,53	
	unrestrictres funds	16.521,59	75.921,73	14.161,82	25.681,79	13.990,98	5.590,68	493,63	152.362,21
	residual budget	22.392,06	4.141,34	13.190,89	105.540,08	171.920,10	70.796,63	148.531,86	536.512,96

Distribution of unrestricted funds by project and year, from 2016 to 2020.

year	LandSense	DITO	WeObserve	D-Noses	EU-C.Sc.	Panelfit	Cos4Cloud	total
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
2016	0,00	14.184,18	0,00	0,00	0,00	0,00	0,00	14.184,18
2017	11.864,00	29.522,14	0,00	0,00	0,00	0,00	0,00	41.386,14
2018	5.000,00	22.000,00	5.000,00	7.300,00	0,00	1.097,22	0,00	40.397,22
2019	-342,41	10.215,41	9.161,82	14.707,03	13.990,98	4.493,46	493,63	52.719,92
2020								
total	16.521,59	75.921,73	14.161,82	22.007,03	13.990,98	5.590,68	493,63	148.687,46

8. Acknowledgements

8.1 In-kind contributions

Museum für Naturkunde Berlin

- ECSA Executive Chair Johannes Vogel, Museum für Naturkunde Berlin.
- Office space, administrative support, design support, travels, print materials, website hosting, administration and development, writing and administering research proposals.

8.2 Other contributions

ECSA's success is only made possible by its many supporters we would like to thank and acknowledge.

The chairpersons for their tireless dedication and great service to ECSA. The board of directors for their commitment. The ECSA advisory board, all ECSA members, and working group chairs and members and their commitment and support, and making ECSA possible in the first place. The headquarters team and their tireless commitment to ECSA.