Deliverable D3.3

Publication of Winners in Cycle I

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Log of changes

Date	No.	Who	Description
22.05.2023	1	Andrew Newman (AE)	Publication of the winners of the first cycle of the European Union Prize for Citizen Science on the prize website
26.06.2023	2	Andrew Newman (AE)	Finalisation of deliverable for internal review including addition of deliverable introduction, scope and relation to other WPs.
28.06.2023	3	Andrea Troncoso (EUSEA)	Review of deliverable. Revision to language use.
29.06.2023	4	Andrew Newman (AE)	Finalisation of text. Correction to Table of Contents and illustration caption.s

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1. Executive Summary

The first cycle of the European Union Prize for Citizen Science awarded 30 citizen science initiatives. These winners were published on the European Union Prize for Citizen website on May 22, 2023 and coincided with a press event in English and German that was livestreamed to the public.

Submissions to the first cycle of the prize were open from January 10 to March 13, 2023 and from April 21 to 23 the international jury consisting of Kat Austen (GB/DE/KR), Lewis Hou (GB), Pedro Russo (PT/NL), Andrea Sforzi (IT) and Stefanie Wuschitz (AT) met together in person in Linz and selected the winners. This selection followed a pre-jury process where every submission was evaluated by two jury members according the Award Criteria.

The *European Union Prize for Citizen Science - Grand Prize*, endowed with 60,000 euros, was awarded to the initiative *Isala: Citizen-science map of the vaginal microbiome* from Belgium. The *European Union Prize for Citizen Science - Diversity & Collaboration Award*, worth 20,000 euros, was awarded to the *Urban Belonging Project* from Copenhagen and Amsterdam, and the *European Union Prize for Citizen Science - Digital Communities Award*, also worth 20,000 euros, was awarded to *The Restart Project: The Right to Repair and Reuse your electronics* from the United Kingdom. The jury also selected 27 Honorary Mentions from across projects taking place across Europe.

321 Submissions

321 initiatives and projects were submitted for the first *European Union Prize for Citizen Science*, linking communities from across 61 countries - Germany, Spain, France, Italy and Great Britain were particularly well represented. Fifty percent of the applicants were female, 45 percent male and 5 percent diverse.

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2. Deliverable Scope

Contribution to project objectives

The publication of winners of the first cycle of the European Union Prize for Citizen Science in 2023 significantly contributes to the broader objectives of IMPETUS.

Publishing the winners showcases Europe's role as a global leader in citizen science. By recognizing and highlighting outstanding achievements in citizen science, the publication promotes Europe's contributions to the field and emphasizes its leadership position. This aligns with the objective of IMPETUS to showcase Europe's role in citizen science.

The publication of winners also promotes and advocates for citizen engagement with science and research within the European Research Area. By highlighting the successful projects and their impact, the publication encourages greater participation and involvement of citizens in scientific activities. This supports the objective of the IMPETUS project to promote citizen engagement with science and research.

Furthermore, the publication of winners increases the visibility and dissemination of the European Union Prize for Citizen Science. By widely spreading information about the winners, the publication raises awareness about the prize and its objectives. This helps to attract more participation and submissions in future rounds of the prize.

Relationship to other work packages

The publication of winners of the first cycle of the European Union Prize for Citizen Science in 2023 directly relates to the WP6 Dissemination & Communication. Several aspects of the project's communication objectives are supported by the publication of winners.

The publication of the winners contributes to the efforts of WP6 in making the ongoing work, aims and output of all work packages within IMPETUS more accessible to the public through various means such as publications, digital platforms, and press coverage of the prize winners. IMPETUS' objective to actively encourage public awareness, participation, and appreciation of citizen science initiatives is supported through showcasing the outstanding and inspiring practices currently undertaken in citizen science by the awarded projects.

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3. Methods

The 30 winners selected by the jury of the first cycle of the European Union Prize for Citizen Science were contacted by the team of Ars Electronica and asked to provide project descriptions, biographies, credits and images for their awarded initiatives.

These texts were then edited by the Ars Electronica team, and uploaded to the prize website and published on the European Union Prize for Citizen website on May 22, 2023 that coincided with a press event in English and German that was livestreamed to the public.

Members of the jury were also requested to co-write a joint statement about the European Union Prize for Citizen Science 2023 and a short statement on why each project was awarded. These statements from the jury were published online with the details of each winning project.

Additionally the jury statement, project descriptions of the three main prize winners, and a list of all Honorary Mentions will be included in the book CYBERARTS 2023 published by Hatje Cantz that also includes the winners of the Prix Ars Electronica and the STARTS Prize. The book will be launched at the Ars Electronica Festival on September, 2023 6 and coincide with an exhibition of all winning projects. Through its presentation at the Ars Electronica, the winning projects of the first cycle of the prize are expected to reach an audience of 70,000.

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4. Jury of the European Union Prize for Citizen Science 2023

The European Union's Citizen Science Prize makes a statement. It honors, presents and supports outstanding projects whose social and political impact advances the further development of a pluralistic, inclusive and sustainable society in Europe. The jury of the the European Union Prize for Citizen Science 2023 was selected to ensure a diversity of expertise and backgrounds to ensure the selection of outstanding projects was pluralistic and inclusive across scientific disciplines and approaches to citizen science

Image 1. The jury of the European Union Prize for Citizen Science 2023 (L-R) – Pedro Russo, Kat Austen, Lewis Hou, Stefanie Wuschitz, Andrea Sforzi. Credit: Florian Voggeneder

Pedro Russo (PT/NL) is a University Professor in Astronomy & Society at Leiden University, the Netherlands and a member of the board of directors of Ciência Viva, the Portuguese National Agency for Scientific and Technological Culture. Pedro leads the Astronomy&Society Group. Dr. Russo was the global coordinator for the United Nation's International Year of Astronomy 2009. Pedro obtained his University degree in applied mathematics, physics and astronomy from the University of Porto, Portugal. Pedro was a research fellow at the Max Plank Institute for Solar System Research in Germany. Pedro is one of the founders of the Citizen Science Lab at Leiden University.Pedro is involved with several international organisations, like the International

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Astronomical Union, European Astronomical Society, ECSITE. His work has received several awards, including Seeds Special Award 2009, Scientix Best Educational Resource in 2015 and 2016, Most Innovative Educational Activities in 2017 and 2018 by HundrED, 2018 Leiden University's K.J. Cath Prize and the first NWO Science Communication Award in 2020.

Kat Austen (GB/DE/KR) is a person. In her artistic practice, she focusses on environmental issues. She melds disciplines and media, creating sculptural and new media installations, performances and participatory work. Austen's practice is underpinned by extensive research and theory, and driven by a motivation to explore how to move towards a more socially and environmentally just future. Working from her studios in Seoul and Berlin, Austen is long-term Artist in Residence at the Faculty of Maths and Physical Sciences, University College London, Senior Teaching Fellow at UCL Arts and Sciences and is a Fellow of the Royal Society of Arts.

Lewis Hou (GB) is founder and director of the Science Ceilidh, an intermediary organisation supporting communities, education, research and culture across Scotland. He consults on equitable community engagement both nationally and internationally and is an organising member of the global DiverSci Community of Practice. He is Fellow of the Young Academy of Scotland and was awarded the Public Engagement Innovator Medal with the Royal Society of Edinburgh. He currently supports The Ideas Fund and Highlands & Islands Climate Change Community Grants funding over 35 grassroots communities directly to lead research partnerships and participatory research on mental wellbeing, culture and climate change, and most interested on how we change systems, funding and policy to support genuine shifts in power to citizens.

Stefanie Wuschitz (AT) is a lead researcher at the Academy of Fine Arts Vienna for projects examining ethical hardware in artistic practice, citizen science and data colonialism in Indonesia. Through her arts-based research, Wuschitz critically examines cultures of technology and production, with an established artistic practice that is exhibited internationally. She co-founded the feminist hackerspace Mz* Baltazar's Laboratory in Vienna, which hosts international exhibitions, lectures and workshops, co-organizes conferences and festivals, and actively advocates against gender bias in technology and open culture. Wuschitz has previously held research fellowships at TU Berlin, the University of Arts Berlin (UdK), Umeå University and the Weizenbaum Institut. She holds a PhD from the department of Visual Culture at TU Vienna, a MFA from the University of Applied Arts Vienna and a MPS from the Interactive Telecommunications Program of New York University.

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Andrea Sforzi (IT) is the Director of the Maremma Natural History Museum. His background is wildlife biology. Since 2011 he developed citizen science projects in Italy, in collaboration with the team of the OPAL project (UK). Since 2012, he was among the founders of the European Citizen Science Association (ECSA). He sat on the Board of Directors of the association until 2020. He coordinated the session on "Museums and Citizen Science" at the first ECSA's International Conference (Berlin, 2016) and led a chapter on this topic in a book published after the conference. Since 2016 he is a member of a panel of experts for the evaluation of Citizen Science projects in Austria, in the framework of the Top Citizen Science (TCS) initiative. In 2016 he was appointed to the Advisory Board of the OPAL project (GB). He is the President of the national association Citizen Science Italia (CSI).

Image 2. Jury discussions at the Jury meeting in Linz. Credit: Florian Voggeneder. Credit: Florian Voggeneder

Jury Statement

Towards a Science-engaged Society: How to Create Radical Change Together

Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Research has been practised by non-professionals since before the formalization of science. The drive to interpret the world around us, to connect to the cosmos, to understand other creatures, is at the heart of our lived experience. From operating alone, to researching in groups, to being part of a global scientific project, what we now understand to be citizen science builds

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on a long history of human endeavor. On the occasion of awarding the first ever European Union Prize for Citizen Science, we celebrate citizen science as a significant vehicle for creating new and valuable outcomes to support radical change in our society.

The submissions for this first European Prize for Citizen Science were varied and inspiring, addressing topics of immense scientific, social, and ecological importance—from addressing AI biases to creatively capturing both the imagination and data around biodiversity. Just as varied were the modes by which the projects came into being, and how citizens were actively involved. While pioneering biologists, botanists, and naturalists may have been at the vanguard, setting a precedent for citizen science, researchers engaged across all disciplines are now acknowledging the rich potential of collaborating with communities. This was demonstrated by the remarkable submissions we had from a wide range of fields, with citizens working together with researchers to co-create knowledge in the natural sciences, political and social sciences, design, art, architecture, history, and beyond.

The selected projects are unique in their own way and together signify the future direction of citizen science in Europe. We were keen to see projects that demonstrate the real value to the knowledge landscape offered by engaging and co-creating with non-experts meaningfully throughout the research process. During our decision-making, we saw some fantastic projects that were still in the earlier stages of development and we are excited to see how they progress, and encourage those to consider reapplying in future.

The complex environmental, social, and infrastructural challenges of our time require the gathering of diverse perspectives. In projects where the research content would benefit from the active input of citizens' own knowledge, it was critical that this was demonstrated. Similarly, excellence in citizen science demands reciprocity in the relationship between the overarching project and those contributing to it—regardless of who is leading it. We looked for projects with a high level of feedback to the community, providing multiple forms of value and fostering the value of citizen's inputs.

Diversity in citizen science has come sharply into focus in recent years and it is especially important to address in projects where the participants' own knowledge is crucial in shaping the research questions and outcomes, or where the participants themselves are the subjects of the project in some way. There were clear examples of initiatives that put into action the key social justice principle "Nothing About Me Without Me". The value of collaborating with citizens across all stages of research was particularly visible in projects undertaken together with those too often marginalized from the processes of knowledge-making, from socially isolated young people to people with

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intellectual disabilities, with initiatives that actively involved participants throughout every stage of the project, most often achieving great impact.

Citizen science is also increasingly influential as a methodology by which communities are enabled to argue for citizens' rights and social justice. This can be through making scientific data open and transparent, not only in terms of making accessible approaches to data gathering and processing, but also in terms of developing participatory formats that allow scientists and citizens to collaborate: from formulating unorthodox research questions, informing and engaging citizens through gamification of data gathering to drawing final conclusions that consider multiple situated perspectives.

Our three main prize winners deal with key issues such as health, circular economy, and social inclusion, showcasing how outstanding citizen science projects introduce new methods to face complexity within a globalized and tightly entangled world.

Grand prize winner, *Isala*, showcased how an increasingly global drive of citizens working with researchers could readdress a historical lack of female health research by mapping the vaginal microbiome and challenging health inequalities. Digital Communities Award winner *Restart Project* leverages a long-standing and growing community of makers to repair and reuse technology and crucially develop new knowledge to hold increasingly opaque technology manufacturers to account through policy change. And as the world continues to urbanize on a massive scale and changes to our climate and geo-political instability is leading to increased migration, our Diversity & Collaboration Award winner *Urban Belonging Project* takes citizen science to the local level through a meaningful, inclusive approach that supports diverse groups in reframing what social sustainability and "belonging" can look like.

As exemplified by these projects, collaborations among citizens, scientists, and policy makers can contribute significantly to a new culture of research, one with a shared intention to face urgent human and non-human crises, react to environmental harm and take responsibility for investigating entangled, complex phenomena. Phenomena that affect us all. As we are in this together, scientists embrace citizen's participation at eye-level, and citizens allow scientists to consider their observations, experiences, oppressions, and insights as a vital part of knowledge production. We're excited to see how citizen science can develop to help us all realize this in the coming years.

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What next for Citizen Science

Whilst what we saw through the projects submitted was inspiring, there are still areas we would like to see developed further in the field. These are clearly pockets of brilliant practice, but overall we want to see citizen science be even more ambitious and creative in terms of the scope of involvement of citizens. We must go beyond just a "contributive" model of "helping scientists" which is rightly critiqued to only replicate the hierarchies of knowledge and divide. Rather, citizens can and should be involved in all stages of the process and especially at the inception of the idea, rather than involvement being an afterthought. We recognize there are necessary structural changes which are required to enable this to happen as current funding mechanisms generally do not allow for smaller communities to be able to lead or for more emergent processes to develop.

Opening this up would allow us to diversify the types of groups that can drive this work and the issues—from the socially engaged and more taboo—that can genuinely shift power in society and develop new knowledge. When seen through a lens of agency, there is an opportunity to go beyond the traditional platforms and subjects to widen what we consider as citizen science to include community participatory action research to artistic-ethnographic practices. As demonstrated by the Honorary Mention awardee *HARNESSTOM* for example, the expertise of local farmers and chefs went beyond a representation of diversity to be fundamental to the exploration of more sustainable varieties of tomatoes. The quality of the research is heightened as a result of their inclusion, as is the impact for communities.

Opening these approaches also does not mean there is an absence of rigor in this work. We would like to see much better understanding and evaluation of citizen science projects across the board. Any research that considers itself participatory should be applying best practices and conducting evaluation in an ongoing manner. This isn't just an issue of quality but also one of accountability and responsibility. It's crucial to admit the duty of care inherent in orchestrating a participatory project—and to safeguard the participants—particularly if working with often marginalized communities.

Excellent citizen science should be diligent in closing the loop, actively feeding back results, and investing in community-researcher relationships long-term, with a commitment to sharing approaches and methodologies that can be adopted, adapted, and used within different projects. Only then can citizen science reach its full potential of democratizing knowledge to support social justice, achieving the radical change required to combat the biggest collective challenges of our age.

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5. Grand Prize

The European Union Prize for Citizen Science Grand Prize recognizes outstanding achievements in the advancement of knowledge through the empowerment of civil society and citizens in the development of the future. The Grand Prize is not limited to specific topics or themes. The Prize will be awarded to the most outstanding initiative according to the award criteria.

The European Union Prize for Citizen Science Grand Prize 2023 is awarded to **Isala: Citizen-science map of the vaginal microbiome**

Image 3. Isala self-sampling kit from the longitudinal flow (sampling vagina, skin and saliva over 2 menstrual cycles), Credit: University of Antwerp

Isala: Citizen-science map of the vaginal microbiome

Sarah Lebeer (BE), Sarah Ahannach (BE), Thies Gehrmann (BE), Stijn Wittouck (BE), Tom Eilers (BE), Sandra Condori (BE), Jelle Dillen (BE), Irina Spacova (BE), Leonore Vander Donck (BE), Caroline Masquillier (BE), Camille Allonsius (BE), Isabel Erreygers (BE), Inas Rahou (BE), Caroline Dricot (BE), Charlotte De Backer (BE), Gilbert Donders (BE), Veronique Verhoeven (BE)

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Isala is the world's largest citizen science project on women's health studying the female microbiome and its influence on our health and *Isala* is the world's largest citizen science project on women's health studying the female microbiome and its influence on our health and wellbeing. *Isala* has both scientific and societal goals, such as finding better forms of diagnostics and therapeutics, but also raising greater awareness of vaginal and reproductive health. Named after the first female doctor in Belgium, Isala Van Diest (1842–1916), the project draws inspiration not only from Isala Van Diest's legacy as a pioneering medical practitioner committed to women's health, but also from her role as a feminist and activist campaigning for women's rights.

The *Isala* project launched in March 2020 with the aim to recruit 200 women to self-collect vaginal swabs. Within ten days, more than 5,500 women had registered. Due to such overwhelming enthusiasm from the public, two lines of research were set up as a first phase of the project. The first line of research involved participants taking part in a large survey about demographic, lifestyle and environmental factors through the online Qualtrics tool, and was accompanied by the self-collection of two vaginal swabs (for microbiome profiling, culturomics, metabolomics). Within one year, each participant received their personal vaginal microbiome profile, and the initial results were shared with the broader public. This was followed by the second line of research, where 275 women were selected to participate in the *Isala* longitudinal flow that studied hormonal fluctuations and the microbiome (through the self-collection of six vaginal swabs).

Image 4. Isala Infographic

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The transdisciplinary *Isala* team and advisory board incentives innovative research methodologies and scalable scientific results. In addition, the Isala citizen scientist is also part of the extended research and communication team as they suggest research endeavors and actively engage as ambassadors for vaginal health and women's wellbeing. *Isala* also endeavors to further its impact by taking on diverse partnerships and stakeholders, such as policy makers, academic and industrial researchers, and non-profits working across various areas of women's wellbeing (both clinical and societal).

Isala is also dedicated to breaking taboos. Inspiring and educating women in STEAM, and informing the broader public about women's health, *Isala* works towards building a vibrant community that supports equal rights for all women. *Isala* strives to not only empower women to take their health into their own hands, but to also cultivate the trust of citizens in the science and research of such intimate topics.

The *Isala* team is heavily committed to community engagement and co-creation. Seeking to broaden perspectives, build bridges between citizens and scientists, and ensure research is made approachable and given a face, Isala adopts a process of transparent and recurrent communication. This is achieved through continuous community outreach activities that take place both offline and online. Offline outreach is undertaken through large and small (inter)national events that include interactive talks, workshops, panel conversations, poster presentations, museum booths, high school education packages, soapbox science, community health kiosks, yearly science and women's days, and the Isala Symposium that took place for the first time in January 2023. Online community engagement takes place through active interactions across social media, blogpost discussions, podcasts, and webinars. Via these channels, both online and offline, the *Isala* team engages daily with citizen scientists and enthusiasts, and reaches an estimated 5,000 – 10,000 people of various ages each month.

Cultivating relationships of trust between citizens and scientists, *Isala* creates a safe space and kind corner for people to share their story, help each other, and co-create impactful and innovative research.

Project Credits

The project would like to thank all Isala volunteers and citizens who co-created the project, the core scientific team, the entire Lebeer lab, the Isala advisory board and the University of Antwerp. The Isala project was set up as a dynamic citizen science project with lots of voluntary work and no dedicated budget for communication. General support from university services helped establish Isala's current science communication. The majority of the first lab analyses

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were funded with ERC StG Lacto-Be project. Subsequent phases are funded with FWO, UAntwerp funding and some sponsoring.

Project Biographies

Isala Team (BE) was formed within Prof. Sarah Lebeer's Laboratory of Applied Microbiology and Biotechnology at the University of Antwerp. Prof. Sarah Lebeer is the principal investigator; dr. Sarah Ahannach and dr. Camille Allonsius are the project managers; dr. Stijn Wittouck is the bioinformatician (assissted by Tim Van Rillaer); dr. Thies Gehrmann is the biostatistician and data manager; Tom Eilers and Jelle Dillen characterize the bacteria; dr. Sandra Condori is the Isala sisterhood project manager; Leonore Vander Donck studies personal hygiene and the vaginal microbiome; Caroline Dricot studies the host immune system and the microbiome; Isabel Erreygers studies diet and the vaginal metabolome; Inas Rahou studies endometriosis and the urogenital microbiome; Ines Tuyaerts, Nele Van de Vliet and Sam Bakelants provide lab support while Annelize Groenwals provides admin support.

isala.be | twitter | Instagram | LinkedIn

Sarah Lebeer (BE) studied bioscience engineering in cell and gene biotechnology and obtained her master's degree maxima cum laude at KU Leuven (Belgium) in 2004. In 2008, she obtained a PhD degree in Bioscience Engineering with a topic on probiotics and inflammatory bowel diseases (KU Leuven). After a postdoc on the interaction between lactobacilli, viruses and mucosal immunology, Sarah was offered a tenure track position in Microbiology at the University of Antwerp in Nov 2011. She has founded the Laboratory of Applied Microbiology and Biotechnology in 2012. Sarah is a full professor since January 2023.

Website | twitter | LinkedIn

Sarah Ahannach (BE) obtained her Bachelors in Biomedical Sciences (2013-2016) and her Masters in Forensic Biomedical Sciences (2016-2018) at the KU Leuven. Sarah obtained her PhD degree in Bioscience Engineering with multi-faceted exploration of women's microbiome in January 2023 (UAntwerp, Belgium). She is currently a postdoctoral researcher at the lab prof. Sarah Lebeer and focuses on the interplay between women and their microbes which adds to her passion to help fill gender data gaps. It is her conviction that a multidisciplinary approach incites innovative results and opens doors for novel research in the field of women's health.

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Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

In many books the female genitals are still portrayed in a reduced and even wrong way—from misunderstanding between the vagina and vulva to failing to show the clitoris. This misrepresentation of the visible makes it perhaps less surprising that scientific knowledge on essential facts on the vaginal microbiome have been critically lacking. With the winning project of the first European Prize for Citizen Science, over 6,000 people collaborated internationally to change this. Through Isala, scientists and citizens joined forces to study the vaginal microbiome and create an undoubtedly unique database pioneering female health. This project successfully addresses social stigma and medical bias concerning intimacy, self-care, and taboos related to the female body. "Isala not only wants to help women become more aware of their own vaginal health, but hopefully all the knowledge about the cultured bacteria will also help to develop medicines that help women with problems. Medicines based on living, healthy bacteria, so no antibiotics but probiotics!"

The jury commends Isala for approaching each part of the project with extreme care, dedication, and passion: topic, research methodology, engagement, and communication. There are toolkits online to support conversations alongside the research and enabling taboo-busting questions between groups and researchers. Embedded through this is a focus on building communities and supporting education around this work globally addressing wider health inequalities with the exciting ambitions to build on this further through sister projects. Involving participants from its very early stages onwards, Isala is an outstanding example of a well-implemented citizen-science proje

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6. Diversity & Collaboration Award

The Diversity & Collaboration Award (€20.000) focuses on initiatives with explorative collaboration models that actively engage a diverse range of stakeholders and scientific agendas. Awarded initiatives will demonstrate a specific excellence in cultural diversity, gender diversity, stakeholder engagement, and social inclusivity, such as e.g.

- Promoting intercultural dialogue through science activities;
- Increasing equity to science learning through STEAM or transdisciplinary approaches;
- Demonstrating novel approaches to science engagement that actively engage local communities.

Image 5. Participant Portraits. Credit: Urban Belonging Collective (INT) & Pedro Borges (US)

Urban Belonging Project

Urban Belonging Collective (INT): Sofie Burgos-Thorsen (DK), Drude Emilie Ehn (DK), Anders Koed Madsen (DK), Thorben Simonsen (DK), Sabine Niederer (NL), Maarten Groen (NL), Carlo De Gaetano (IT), Kathrine Norsk (DK), Federico Di Fresco (AR), Gehl Architects (DK), Techno-Anthropology Lab – Aalborg University (DK), Service Design Lab – Aalborg University (DK), Visual Methodologies Collective – Amsterdam University of Applied Sciences (NL), Center for Digital Welfare – IT University Copenhagen (DK)

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The Urban Belonging Project innovates methods for citizen engagement that foreground diverse and marginalized experiences in planning. The project invited participants who identify as lgbt+, deaf, homeless, internationals, ethnic minorities, mentally vulnerable, and/or physically disabled to document their experiences of belonging in Copenhagen using participatory GIS and a new open source photovoice app, developed for the project.

Image 6. Photos from workshops with participants, Credit: Sofie Burgos-Thorsen (DK)

The design of the photovoice app was carried out through a co-design process, led by researchers with inputs from community organizations and planners from Gehl Architects, who helped test and refine the app. Participants were then engaged through local organizations representing each community. In intro-meetings with participants, the process was presented and smartphones were handed out to people without. Participants then filled out a spatial questionnaire and carried out photovoice over 10 days, taking photos of places in Copenhagen that affect their sense of belonging. While photos and routes were geo-tracked, participants were asked in the app to annotate their photos and react to other participants' images. In workshops, participants worked together on interpreting the data, creating a collection of photos, maps, and visualizations that was exhibited to the public in 2022 at Urban 13 and Copenhagen Architecture Festival.

The *Urban Belonging* methodology is being documented in scientific articles, and the app is available on GitHub and is actively used by others as intended: Gehl has used the app to map experiences of belonging on a university

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campus in the US; TANTLab and Copenhagen University researchers have used it to study the life of youth in Danish 'ghettos' and local perceptions of heritage in Urbino, Italy; *The* DESIRE *Project* in the EU has used it to identify issues of urban sustainability; and a local NGO in Seattle has used the photovoice app and method to involve the youth in a local neighborhood to contribute to and inform a new city policy.

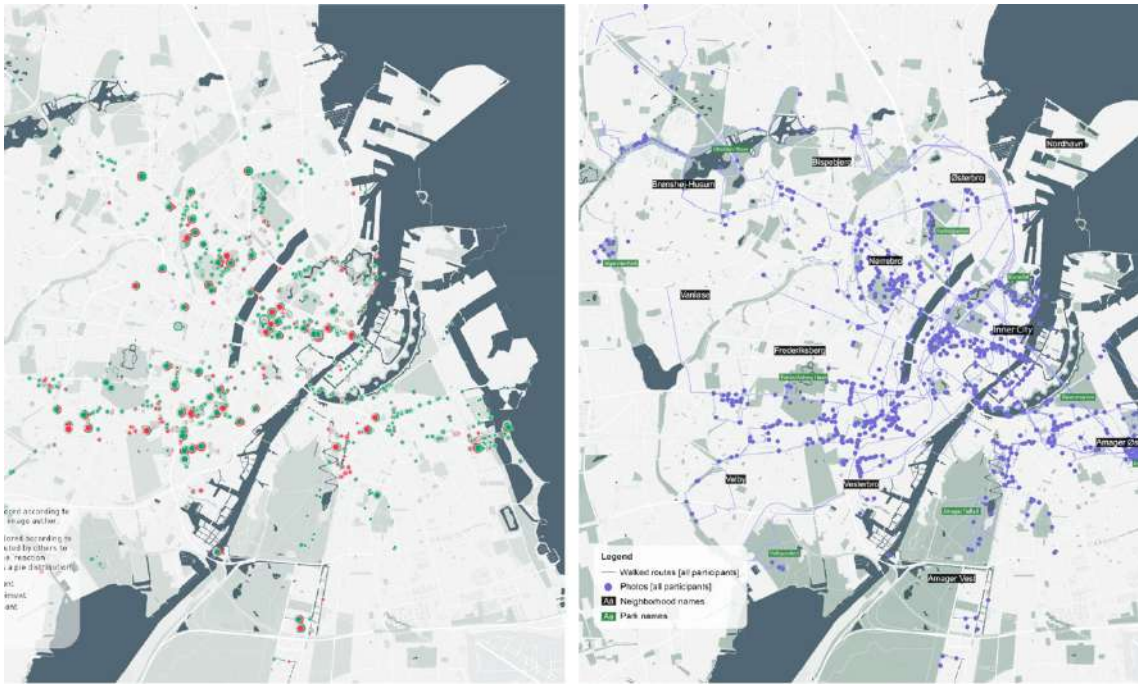

Image 7. Maps of photovoice data collected in the project, Credit: Sofie Burgos-Thorsen (DK)

Project Credits

The *Urban Belonging Project* is co-funded by the 'Doing Data Together' grant awarded to Anders Koed Madsen at Aalborg University and Innovation Fund Denmark's research grants awarded to Sofie Burgos-Thorsen and Drude Emilie Ehn, respectively. In addition, it is supported by Gehl, Service Design Lab (Aalborg University), Center for Digital Welfare (IT University Copenhagen), and Centre of Expertise for Creative Innovation in Amsterdam. Collaborators include Pedro Borges and community partners LGBT+ Denmark, Hugs & Food, Danish Deaf Association, Danish Disability Association, SIND Denmark, and Mino Denmark.

Project Biographies

Sofie Burgos-Thorsen is an industrial PhD at Gehl architects and TantLab (Aalborg University). She is driven by innovating digitally powered visual methods, and experimenting with how they allow planners and scholars to

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generate more diverse insights about people's lived experiences in cities; through the eyes of the citizens. Sofie is excited that the UB project uses these visual methods to flip the script on sometimes extractive and exclusive engagement with a process that is participatory from A to Z. This, she hopes, will inform future planning with a new perspective on how to design socially sustainable cities.

Anders Koed Madsen is associate professor in TANTLab at Aalborg University in Copenhagen. He is interested in the way public spaces feel welcoming to certain groups and not others and the way different forms of urban diversity may potentially counteract each other. This interest comes out of a recent research project where we found places of high political diversity to have very low demographic diversity. If there is no hope for a 'catch all' strategy for urban diversity, Anders wants to develop empirical methods to trace and unpack the complex ways in which groups are phenomenologically entangled in urban space.

Drude Emile Ehn is an industrial PhD at Gehl architects and Service Deisgn Lab (Aalborg University) She is interested in practices of inclusion and equity in urban planning processes. 'Urban Belonging' brings a novel perspective by resituating the framing capacity away from researchers/planners and on to the citizens themselves, and Drude hopes that participatory photography, mapmaking and collaborative analysis will give a more nuanced picture of the voices that are traditionally underrepresented in city-making – a picture that will enable us to perform fairer inclusion of different urban populations in the future. Furthermore, Drude is interested in how the methods used in this project can challenge current architectural practices as well as understandings of place attachment and urban belonging.

Kathrine Norsk is a consultant in team Målgrupper. She is interested in incorporating user perspectives in urban planning, and even more importantly, the ones that are outside the norm, which is why she wanted to be a part of the project. Kathrine thinks photography is a powerful communication tool which has the potential to become an even more integrated method in the development of places. She is furthermore interested in researching the spatial awareness of the participants and how participatory practices can potentially change the way they view their city.

Sabine Niederer is professor of Visual Methodologies at the faculty of Digital Media and Creative Industries of the Amsterdam University of Applied Sciences. What drew her to the project of urban belonging is that it takes emotional and experiential knowledge seriously and seeks ways to incorporate such ways of knowing in the different phases of data collection,

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interpretation, and visualization, to eventually inform urban planning processes. Urban Belonging tests and combines methods that do not often meet: data-driven research and participatory methods, visual analysis and 'talking back' to maps, tracing routes and annotating them with image collections.

Maarten Groen is researcher at Hogeschool van Amsterdam. In his work, data always plays a key role. Whether it's data collection using participatory methods, analysis or visualization, there is always data involved. We can capture so much in data, but the context from the expert that collected the data is usually even more important. In the Urban Belonging project all these things come together. How do you capture the feeling of Urban belonging? Just collecting data is not enough, context is needed from those that collected the data to make it richer and make it a learning experience for all parties involved. Something that is easily forgotten in regular data-driven research.

Carlo De Gaetano is designer and researcher at Amsterdam University of Applied Sciences. He is fascinated by the different reasons why people feel attracted to or rejected by a place, and by how individual experiences can be visually narrated. How many different pictures of the same street can be taken? His interest comes from landscape photography, in particular from the belief that taking a picture is an act of care that reveals our intimate relationship with 'somewhere'. As an expat, he often looks for signs of familiarity in his surroundings. He likes to discover how people look at the city to feel at home. From an information design perspective, he is also interested in testing methods to use visual data to foster collective reflection, and in exploring ways to facilitate image-driven discussions. In this project, Carlo particularly likes the perspective that urban planning can be informed by individual feelings.

Federico Di Fresco is a project assistant in Gehl architects. He is interested in the everyday experience of people in public spaces and how this relates to their health, the sustainability of the environment, and society. He is driven by the combination of a qualitative and quantitative data approach to strategic and service systems design to inform city makers. This, with a participatory approach, he believes, can contribute to making more socially and environmentally sustainable cities.

Thorben Peter Simonsen is a researcher at the Danish Center for Social Science Research (VIVE). He is interested in the constitutive relations between digital technologies, spaces, and practices, and how we might experiment with empirical methods and concepts in order to better understand their situated entanglements in everyday contexts. In the Urban Belongings

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project we get to do all this and more! Working analytically with participatory methods and by producing qualitative data through technology-use, Thorben is excited about investigating how different people experience and articulate their attachments to different places, the prospect of how these articulations can challenge existing architectural practices, as well as how they might afford material for developing a stronger relational approach and more differentiated spatial vocabulary to the study of cities and city development.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

What makes you feel that you belong in a city? This is the question asked by the Diversity and Collaboration Prize winner, the Urban Belonging Project, *which considers what social sustainability looks like and whose experience and voices count. Through conversations, participatory mapmaking, and photography, a diverse range of citizens were asked to document their relationship to the city of Copenhagen to develop a Lived Experience Catalogue. From LGBTQ+, homeless, and ethnically diverse groups, the project moved beyond inviting citizens to collect data to also frame the issues and interpret the data themselves. Throughout, an intersectional and feminist approach was taken, and the jury commend the particular attention to supporting communities whose stories are often not considered in urban planning through relevant partner organizations and the resultant sensitivity, creativity, and accessibility of the engagement approaches and the data visualization*

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7. Digital Communities Award

Image 8. The Restart Project. Credit: The Restart Project / Mark Phillips

The Restart Project

Frances Cresswell (GB), Holly Davies (GB), Fiona Dear (GB), Mario De Marco (IT/GB), Cristina Ganapini (IT/BE), Shelini Kotecha (GB), Neil Mather (GB), James Pickstone (GB/BE), Ugo Vallauri (IT)

The Restart Project addresses the environmental costs of our linear, consumerist economy. It combines hands-on community repair engagement with the need for system change, via citizen data collection and analysis, campaigning and policy influencing at EU and national level.

Many electrical goods have short lifespans, prematurely becoming e-waste, the fastest growing waste stream in Europe, and driving the extraction of ever more raw materials to manufacture new products. Around 80% of a small electronic device's carbon footprint is emitted before it is ever used, therefore repairing and reusing devices is essential to reduce their overall impact. This plays a key role in achieving SDG 12: sustainable consumption and production patterns.

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Image 9. The Restart Project. Credit: The Restart Project / Mark Phillips

Through Restart Parties and other repair events, volunteers help members of the public repair broken items, building community through the sharing of skills, reducing waste, and recording data about the repairs attempted. In 2017 *The Restart Project* co-founded the Open Repair Alliance (ORA) and created the Open Repair Data Standard (ORDS) with partners to improve the quality, consistency, and interoperability of citizen-sourced repair data from networks around the world.

Using ORDS as a foundation, Restart developed its own open-source community platform, Restarters.net, to support groups across Europe and beyond in collecting data and monitoring the impact of their work. *The Restart Project* then actively brought entire networks of repair initiatives together to share citizen repair data from Belgium (2019), Wales (2021), Denmark (2022), and France (2023). In total, around 600 citizen scientists have now recorded over 81,000 repair attempts, which Restart periodically aggregates and publishes under an open licence.

Since 2019 Restart co-leads the European Right to Repair Campaign, a coalition of over 100 organisations demanding ambitious legislation to make repair accessible and affordable to everyone.

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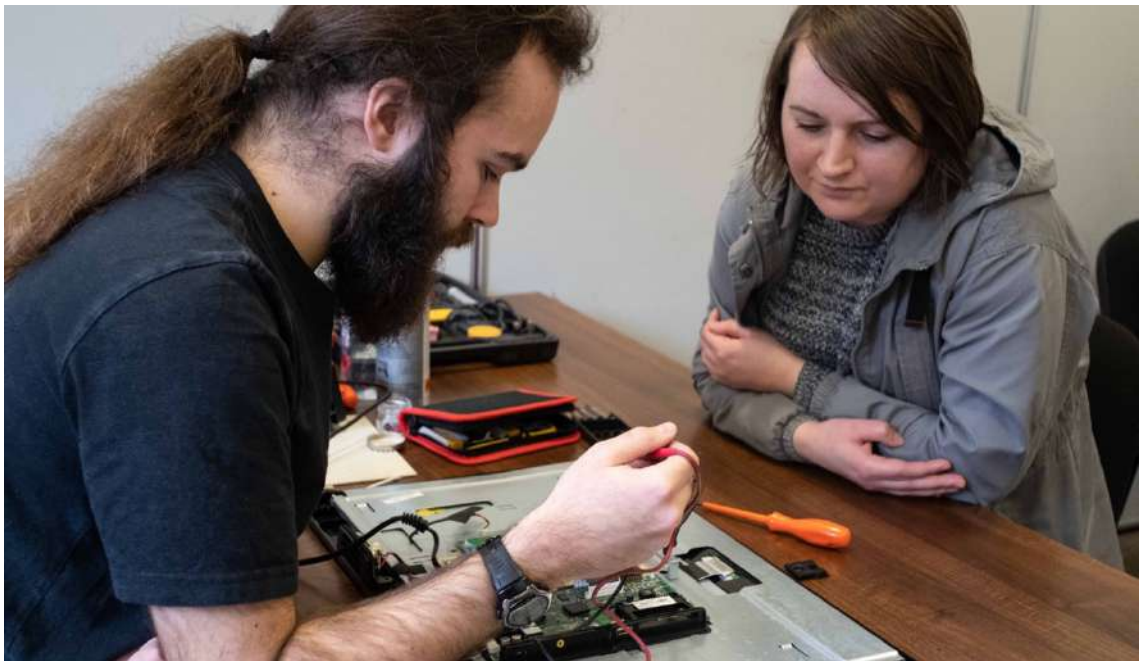

Image 10. The Restart Project. Credit: The Restart Project / Mark Phillips

Credits

The Restart Project has since 2016 received key support from: the Shuttleworth Foundation; Nesta; Esmee Fairbairn Foundation; The National Lottery; Joseph Rowntree Charitable Trust; and the European Union through participation in the Interreg North-West Europe project SHAREPAIR and the Horizon 2020 project *ACTION* (Participatory science toolkit against pollution).

Biographies

The Restart Project (GB) is a London-based charity fixing our relationship with electronics. By encouraging people to use their electronics longer and collecting and sharing data from community repair initiatives globally on recurrent barriers to repair, Restart pushes for legislation for the Right to Repair in the UK and across Europe. Restart was founded in 2012 as an all-volunteer project, and volunteers are still at the centre of its work. It started when the repair café movement was beginning to gain visibility. Restart decided to focus specifically on prevention of e-waste through repair, and highlighting the need for complete system change in the way we consume, design, and regulate the devices that power our digital economy. It advocates for a universal Right to Repair, requiring manufacturers of all electrical and electronic products to design for repairability, while providing access for all to repair manuals, affordable spare parts, and long-term software and security updates.
therestartproject.org | 10yearphone.com | repair.eu | repairday.org | twitter | Mastodon | Instagram | facebook

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Ugo Vallauri (IT) is Co-founder and Co-Director of The Restart Project, a London-based charity fixing our relationship with electronics. By encouraging people to use their electronics longer and collecting and sharing data from community repair initiatives globally on recurrent barriers to repair, Restart pushes for legislation for the Right to repair in the UK and across Europe.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Citizen Science can gather new data about our world, and beyond this it also has the potential to bring together collective intelligence for new insights and impact. This potential can be reached by using digital tools to foster and support a community to share and develop questions and knowledge together. The Restart Project has been supporting the repair and reuse of technology for more than 10 years through forums, online coordination, and in-person events, with dedicated programs for digital inclusion and addressing under-represented groups. This growing and global community has gone on to not only revitalize old technology but also to provide data, and carry out research that give insights into the impact that reuse and repair has on the environment. This, in turn, plays an important role in changing policy regarding technology regulation. The jury commends the dedication to inclusion and community-making by the project, combined with the outreach to stakeholders in the policy sphere to create impact both in individuals' lives and in international legislation.

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8. Honorary Mentions

The selection of Honorary Mentions is not shaped by thematic considerations, but consist of outstanding initiatives from all fields and directions of Citizen Science. Beyond the quality assessment of applications, the selection of Honorary Mentions will also consider the geographical diversity as well as the diversity of contexts and research fields represented by the selected initiatives. In 2023 the jury selected 27 Citizen Science Initiatives from all submissions to the European Union Prize for Citizen Science to be awarded Honorary Mentions.

Image 11. #SOPHYGRAY (Interactions), 2022 © Nadja Verena Marcin & VG-Bildkunst, Video-Stills: Klaus Schwichtenberg

#SOPHYGRAY

Nadja Verena Marcin (DE)

sophygray.com

#SOPHYGRAY is a feminist audio bot app that answers questions in surprising, philosophical, and humorous ways informed by intersectional feminist perspectives. Presented as an immersive installation in the exhibition context or an app for mobile devices, she/he/it questions assumptions about virtual assistants (Alexa, Siri) and their typically feminine-sounding submissive voices, which often reinforce stereotypes, gender roles, and power hierarchies and reflect the culture that developed them, as well as the impact in everyday life:

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the distorted representation of women in the media and the objectification that comes with the use of gendered technologies.

Conceived during the EMAP residency at Onassis Stegi in Athens 2022-2023, the app is now available for mobile devices in the iOS App Store and Google Play Store and can be found online as demo at sophygray.com. It can be shown in an immersive installation - along with a performance event featuring two dancers and the artist - or independently, as well as be accompanied by a workshop with local participants who become feminist bot developers themselves by writing entries and contributing to the bot's library, which is constantly growing. Its prototype app was developed for and premiered at Kunstverein Ruhr in 2021, the performance in 2022, the app in 2023.

When you talk to #SOPHYGRAY, you train her, you shape her, and teach her new knowledge. #SOPHYGRAY's creators are committed to creating counter-narratives to overturn gender biases in today's technologies, and the stereotypes enforced by common language use. A moderated knowledge base and learning features are put in place to capture and disseminate intersectional feminist thinking globally. In 2023, the app will be presented as part of the Platform Glitch Aesthetics at the Digitalvilla Potsdam, and the performance and installation will be shown at the WRO Art Center's Fungible Content - 20th Media Art Biennale. Afterwards, the project embarks on an international exhibition tour.

Credits

Android App - Developer: Novatec; Consultant & Adviser: Jason Basset; Sculpture Production: BetonIdee; Videographer: Adèle Perrin; Choreography: Lena Strützke; Concept, Art Director & Video-Performance: Nadja Verena Marcin.

Web-based App - Developer: Alex Stachowiak; Support & Feedback: Novatec, Daphne Dragona, Katerina Varda, Heracles Papatheodorou; Audio-Bot Writers: Sonja Borstner, Leon Meschede, Anthony Huffman, Monique Machicao, Shuang Cai, Anastasia Diavasti, Naomi Frisso, Andromache Kokkinou, Elektra Tsakalia, Vivi Papanikola, Olga Vereli, Irene Stenioti, Translation: Nari Kutlubasis & Maryna Didenko of WRO Biennale; Concept, Art Director & Editor: Nadja Verena Marcin.

Performance - Dancers: Maja Kowalik & Viola Cantù (Essen); Penny Eleftheriadou & Anna Apergi (Athens), Dasha Bogdan & Sofiia Onishchenko (Wroclaw); Costumes: Le Costume/ Uljana Richter; Music: Performance Soundtrack Metropolis; Concept, Art Director & Lecture: Nadja Verena Marcin

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#SOPHYGRAY is made possible by EMAP/EMARE residency at Onassis Stegi as part of the European Media Art Platform (EMAP) residency program, which is co-funded by the European Union as well as the New York State Council on the Arts with the support of the Office of the Governor and the New York State Legislature, fiscally sponsored by the New York Foundation for the Arts. It is sponsored by Novatec and supported by the Ministry of Culture North Rhine-Westphalia, NEUSTART KULTUR by the BBK Bundesverband and the BKM - German Federal Culture Commissioner and Stiftung Kunstfonds in Bonn.

Biographies

Nadja Verena Marcin (DE) is a visual artist who explores psychology and human behavior through an interdisciplinary analysis of feminism and emotional architecture in a theatrical and cinematic context. Her work subverts representations of women found in current and historical contexts to magnify ideological systems of power and psychological effects within her creation. It has been shown worldwide at SCHAUWERK (Sindelfingen, Germany), Fridman Gallery (New York), Onassis Stegi (Athens), and ZKM Museum (Karlsruhe, Germany), Shanghai Himalayas Museum (Zendai MoMA) and received grants from the New York State Council for the Arts and the German Federal Government for Culture and Media (BKM) and has been reviewed in Artnet News and Hyperallergic. She is a DAAD and Fulbright Scholar, holds an MFA from Columbia University, and has been a lecturer and critic at Wellesley College and the Int. Center for Photography.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

It's long been known that our technologies are not neutral. The fact that they encode their developer's world views, politics and prejudices is nowhere more apparent than with AI. With the #SOPHYGRAY audiobot, artist Nadja Verena Marcin forefronts the impact of human values by inviting participants to contribute to the bot's development based on their interaction with its intersectional feminist canon.

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Image 12 AquaGranda: A Digital Community Memory

AquaGranda: A Digital Community Memory

Distretto Veneziano Ricerca e Innovazione (IT), Venice Ca' Foscari University (IT)

aquagrandainvenice.it

How can communities cope with the devastating effects of climate change and build a new future?

The *Aquagranda* project has allowed Venetian citizens to jointly build a digital community memory from social media and other sources about the devastating floods of November 2019. Researchers in AI and artists created powerful artworks to unlock meanings from more than 40,000 fragments of memories, such as photos, videos and messages: all the raw material has been collected through the cooperation with the community and is now guarded in the digital archive. The results have been shown both in a hybrid exhibition distributed throughout the city and accessible by augmented reality on mobile devices and a physical exhibition that took place in one of the most flood-damaged buildings in 2019.

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Credits

AquaGranda Team: Massimo Warglien - Scientific Director; Luc Steels - Artistic Director and Co-Editor of the book *AquaGranda a digital Community Memory*

Marco Cosmo - Executive Director; Costanza Sartoris - Co-Curator of the exhibition *Sulla Acque* and Co-editor of the book *AquaGranda a digital Community Memory*(https://zenodo.org/record/4739305); Erica Villa - Co-Curator of the exhibition *Sulla Acque*; Carlo Santagiustina - Scientific and Technological Supervisor, Co-Ideator of the *AquaGranda Archive*; Gabriella Traviglia - Co-Ideator of the *AquaGranda Archive*; Co-Developer of the platform and producer of the digital exhibition *Navigating AquaGranda*; Giulia Saya - Project Manager of the exhibition *Sulle Acque*; Marco Paladini - Creator and Coordinator of cultural outreach events; Joeri Bultheel - Developer of the Virtual exhibition *Navigating AquaGranda*; Matteo Silverio - Set-up Manager of the exhibition *Sulle Acque*; Michele Schiavinato - Co-Creator and Developer of the *AquaGranda Archive Database*; Alessandro Descovi - Co-Developer of the *AquaGranda* platform; Valentina Lisi - Tutor Oral History labs; Vanessa Milan - *AquaGranda* Image Creator; Aldo Aliprandi - Set-up Consultant of the exhibition *Sulla Acque*; Valentine De Gobbi - Stagiaire.

AquaGranda Artists: Fabian Kühlein; Carlo Santagiustina; Robin Lamarche-Perrin; Federica Bardelli: Margarita Maximova; Armin Linke: Armin Pournaki; Giulia Bruno; Mark Tuters; Gabriele Colombo; Partha Das; Tom Willaert; Giulia Bruno.

Financial Support: EU H2020 FETPROACT-01-2016 - FET Proactive: emerging themes and communities: ODYCCEUS - Opinion Dynamics and Cultural Conflict in European Spaces (732942) 2019-2020; EU H2020 FETPROACT-EIC-05-2019 - FET Proactive: emerging paradigm and communities: MUHAI - Meaning and Understanding in Human-centric AI (951846) 2020-2021; EU H2020 ICT-26-2018-2020- Artificial Intelligence AI4EU - A European AI On Demand Platform and Ecosystem (8525619) 2021; EU HORIZON-MSCA-2022-CITIZENS-01: BlueNights (101061605) 2022.

Biographies

Distretto Veneziano Ricerca e Innovazione (IT) – Venetian District of Research and Innovation was created by signing the Venice Statement during World Science Day, held with the auspices of UNESCO, and aiming to undertake a communitarian mission to reach the excellence in scientific research. DVRI gathers together cultural Institutions, Research centers, Universities and associations. All the members share resources, knowledge,

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instruments and data to realize common projects at national and international level, mainly focused on achieving sustainable development. All DVRI members have endorsed their commitment within the Venetian Innovation and Research District in order to strengthen the relationship between the Venetian culture and knowledge centers and local communities, through stimulating, creative and interdisciplinary activities.

Università Ca'Foscari Venezia (IT) was established in 1868 as Royal Business College and was the first of its kind in Italy. Today, it is recognized as one of the best universities in the country offering its students diverse and ample study programs in the following areas: Management, Environmental Sciences, Information Technologies, Molecular Sciences and Nanosystems, Social, Economic and Environmental Sustainability, Economics, Digital Humanities, and Foreign Languages.

Luc Steels (BE) initiated the Aqua Granda project in December 2019 as a visiting professor for the ODYCCUES project at Ca'Foscari University. Since his studies at the MIT AI Laboratory he has been active in research in artificial intelligence, language evolution, behaviour-based robotics, and knowledge-based systems. He was the founding director of the AI Laboratory of the University of Brussels and of the Sony Computer Science Laboratory in Paris. From 2012 he was a fellow at the Catalan Institute for Advanced Studies. Currently, he is associated with Venice International University as director of the EU project MUHAI.

Massimo Warglien (IT) is professor at the Dept. of Management, Ca' Foscari University and a member of the ODYCCEUS team. His current scientific interests combine behavioral and experimental economics with applications of NLP to social sciences. He also has major interests in language and games, and multispecies interaction. He held visiting positions in international universities and research centers and has published in major scientific journals. He is a board member of the Intl. Centre for the Humanities and Social Change and a member of the Venice Digital and Public Humanities Laboratory.

Marco Cosmo (IT) is the Director of DVRI. He after an experience Business Consultancy he moved to Ca' Foscari University of Venice as Temporary Research Associate. Now he is in charge as Director of Ca' Foscari Alumni ('15) and since '17 he has been working also in the Development Office (from '22 as Director) dealing with Fundraising, Corporate Program, Business Development and Special projects. Since '22 he is the Director of DVRI. Since '18 he is a member of the "Global Shapers Community Venice Hub" Advisory Board (a WEF's project) of more than 400 city-based Hubs developed and led by young leaders.

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Federica Bardelli (IT) is researcher at Media Studies – University of Amsterdam. She is currently part of the Visual Methodologies Collective, Amsterdam. Her work focuses on new visual languages applied to research, specializing in information and data visualization strategies with digital methods. She's now working at the intersection of digital and multimedia arts, deriving common languages between research and artistic practices.

Gabriele Colombo (IT) is a researcher at Media Studies at the University of Amsterdam. He is affiliated with DensityDesign, a research lab at the Design Department of Politecnico di Milano, with the Department of Architecture and Arts of the Università IUAV di Venezia, and he is part of Visual Methodologies Collective in Amsterdam. His research and teaching activities focus on the design of novel strategies for the communication, exploration, analysis and valorisation of collections of images and videos.

Marc Tuters (NL) is an assistant professor at the University of Amsterdam in Media Studies, and a postdoc with the Digital Methods Initiative, the sole humanities research team in the Odysseus project. Prior to his current academic career, Marc developed the concept of "locative media" — a term used by researchers and practitioners alike to refer to for site-specific digital art. Now residing in Amsterdam, Marc was born in London, he grew up in Toronto and Montreal, and has lived in Los Angeles and Tokyo.

Joeri Bultheel (BE) is a developer and sound -artist from Brussels currently living in Berlin. He did a bachelor in sonology at the Conservatory in The Hague, focusing on computer music, and a master in applied computer science at the University of Brussels (VUB). The past five years he has been working as a mobile developer, making iPhone apps mostly but also doing all sorts of other programming for desktop applications, for 3D visualizations, and for the web.

Fabian Kühlein (DE) is a freelance radio play and radio artist. He has been touring radio studios, theatre stages and urban spaces since 2005. In recent years he has realised numerous radio plays and features for public broadcasting, created sound events for theatre plays and conceived audio installations in museums and public spaces.

Robin Lamarche-Perrin (FR) is a CNRS researcher at the Complex System Institute of Paris Île-de-France. There, he works on computational tools for the study of social processes and human interactions. He also conceives digital artworks based on physical simulation, algorithmic alteration, and generative design: https://lodelo.art

Armin Pournaki (DE) is a PhD candidate at the Max Planck Institute for Mathematics in the Sciences, Leipzig, where he develops social media

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observatories using interactive network visualizations. He is interested in the mechanisms that lead to community formation in networks and is currently exploring new mathematical approaches to discourse analysis.

Margarita Maximova (DE) is a video artist currently living and working in Berlin. She has widely exhibited in galleries, museums, off-spaces and media festivals. In her most recent body of work she analyses psychological and emotional concepts concerning the use of language in the digital era.

Carlo Santagiustina (IT) is assistant professor of Research Methods at Ca' Foscari University, where he is responsible for the CISCO X Venywhere project. He has a background in behavioural economics and risk perception, and he is specialized in computational methods & AI solutions for management research, and Internet phenomena analysis. He develops digital methodologies for the analysis of online debates, narratives and deliberations, contributing, among others, to the ODYCCEUS and ISEED projects. He also collaborates with the MUHAI project at Venice International University.

Matteo Silverio (IT) is a trained architect interested in exploring the potentialities given by scientific and technologic innovations in the design process, through a modern and multi -disciplinary approach that involves digital and fabrication tools. Many of his projects have been published in magazines, books, and exhibited in prestigious museums or institutions such as the Mint Gallery, the Saatchi Gallery or the Corning Museum of Glass, among others.

Tom Willaert (BE) is a postdoctoral researcher in digital methods at the VUB Artificial Intelligence Lab. Building on a background in humanities scholarship, he develops and uses computational methods for text analysis in order to study societal, cultural and political conflicts in online media.

Costanza Sartoris (IT) just completed her Ph.D. in management at Ca' Foscari University. Her research centers on organizing practices read through a post-anthropocentric perspective, with a focus on plants. She holds a BA in management for the arts at Bocconi University and a MA in visual culture and curatorial studies at Brera Academy of Fine Arts. In 2022, with Noemi Biasetton and Matteo Vianello, she curated the project 'Matters of Lives. Encounters on the Edge of the Pluriverse'. In 2021, with Luc Steels she co-edited the book 'Aqua Granda. A digital community memory'.

Erica Villa (IT), biologist, holds a master's degree in science communication from SISSA. She has worked in institutional science communication for the Ministry of Health, scientific publishing houses, and international scicomm journals. Formerly working at Ca' Foscari University of Venice, she now works as a consultant and curator of art and science projects and exhibitions, with a

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focus on creating an impact on younger generations through the arts. Her passion lies in the intersection of art and science as a source for new creative content, particularly for environmental artivism.

Gabriella Traviglia (IT) is a cultural professional specializing in research valorization, and the use of new technologies and data to create portals, and web-apps for cultural and scientific content. She has experience in managing events, exhibitions, and non-formal education programs. Gabriella has worked with DVRI, CNR, and Science Gallery, among others. She has a master's degree in digital humanities and conducted research fellowships in scientific dissemination. She has also published articles on the connection between art and science, digital curation, and cross-media education paths.

Giulia Saya (IT) is a content lead and project manager for exhibitions and artistic projects. She worked alongside various art directors, such as L. Mazzieri at CBDIME Milan. She has been gallery manager for AKKA Project and coordinated the set-up of the new exhibition spaces of the Fondazione Santa Maria Nuova in Florence. She organized several workshops on graphic design & AI for the Center for Future Publishing, in collaboration with HEAD-Genève. She was recently appointed by the DVRI as project manager for AquaGranda's immersive exhibition 'Sulle 'Acque', which took place in Venice in 2022.

Michele Schiavinato (IT) is a researcher working in the field of machine learning, artificial intelligence and computer vision. He started his study carrier at Ca' Foscari University of Venice obtaining a Ph.D. in Computer Science. In the same university, he gets a postdoc working on several applied research projects. His most relevant contributions are related to software solutions for local companies. He has joined to the Odycceus European project developing and maintaining the Aqua Granda database. Currently, he is continuing to follow this project while collaborating with Strategy Innovation Hub, a Ca' Foscari's spin-off.

Marco Paladini (IT) has a degree in archaeology and deals with museum teaching and public archaeology. He collaborated with museums and foundations, including the MUVE and the Fondazione Querini Stampalia. Passionate about cinema and theater, he was the protagonist of a web series with which he won two national awards (RaiFiction award 2016, Best Italian Web Actor award 2015). Active in various socio-cultural associations, he lives and works in Venice. For AquaGranda, he coordinated the community-based digital materials collection campaign and was the coordinator of the cultural outreach events of the exhibition 'Sulle Acque'.

Alessandro Descovi (IT) has been managing and developing web projects for over 10 years. Graduated in Design from IED, he has collaborated with numerous companies, including Volkswagen, Feltrinelli, the Autonomous

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Province of Trento, and Ca' Foscari University of Venice. Today, he is the CEO of Rubynetti. He specializes mainly in the use of Ruby on Rails, Vue.js, and React technologies.

Armin Linke (IT) has documented for over twenty years how humanity uses technologies and knowledge to transform the surface of the Earth and adapt it to its needs. In a collective approach with other creatives, researchers and scientists, the narratives of his works expand on the level of multiple discourses. His works were exhibited internationally. He won the special prize at the 2004 Venice Biennale of Architecture and Image Capital was awarded the Kubus.Sparda Art Prize in 2019.

Giulia Bruno's (IT) artistic and photographic research focuses primarily on issues of identity, technology, language, architecture and on the contradictions occurring in the interaction between these areas. As a filmmaker, she is interested in artificial languages and languages that have carried culture and human resources for centuries, with a particular interest in their preservation and transformation to preserve communication and knowledge. Her works have been presented internationally.

Neal Hartman (CH) was the director of Science Gallery Venice. With a mechanical engineering degree from the University of California, Berkeley, Neal worked as an engineer at CERN for 18 years. Actively involved in science/art outreach since 2007, he co-founded CineGlobe, the International Film Festival at CERN, showcasing films inspired by science and technology. He was director of production for TEDxCERN for five editions. Chairman of the World VR Forum in 2017, Neal has organised multiple events in virtual reality. With a degree also in film directing, his passions are equally shared between art and science.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

The impacts of the climate emergency are increasingly felt around the globe. Addressing the consequences on a coastal community, the AquaGranda project gathered an open-data archive of the 2019 Venice flood after which it is named, and crowd-sourced memories and meaning-making using digital platforms. The project involved artists and scientists alongside citizens in responding to these diverse inputs about the flood, creating online and offline knowledge and artworks that provide insights into the human and social-scale repercussions of living with climate precarity.

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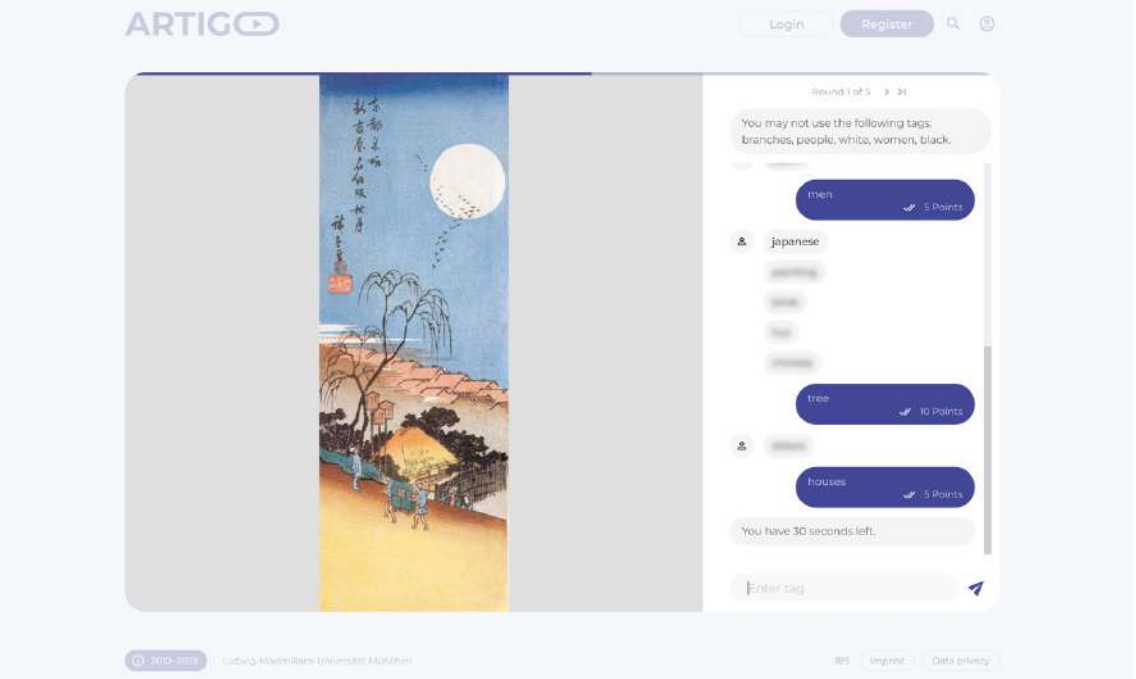

Image 13. Screenshot of the ARTigo game interface for annotating image regions based on tags, Credit: ARTigo. CC BY-SA 4.0

ARTigo: Social Image Tagging

Stefanie Schneider (DE)

ARTigo, a Citizen Science initiative by Ludwig Maximilian University of Munich's Institute for Art History and Institute for Informatics, democratizes the traditionally elitist field of art history by harnessing the collective intelligence of participants since 2010. The project illuminates the notion that cultural heritage is a product of not only experts but also the everyday human experience. Its primary aim is to facilitate the generation of art-historical image descriptions in a playful manner, thereby expediting image searches and innovative methodologies for scholarly inquiry.

As an interactive web application, ARTigo employs *Games With a Purpose*, challenging players to annotate images using visual or textual tags within a specified timeframe. To stimulate ingenuity and garner insightful information, certain game modes restrict frequently utilized tags. Players accrue points by matching their tags with others; previously employed tags can be reused, creating a sense of camaraderie even when no other players are currently online. Upon each game session's conclusion, previously tagged artworks, accompanied by their titles and creators, are shown again, enriching the gameplay experience and aiding players in retaining the artworks' conceptual intricacies.

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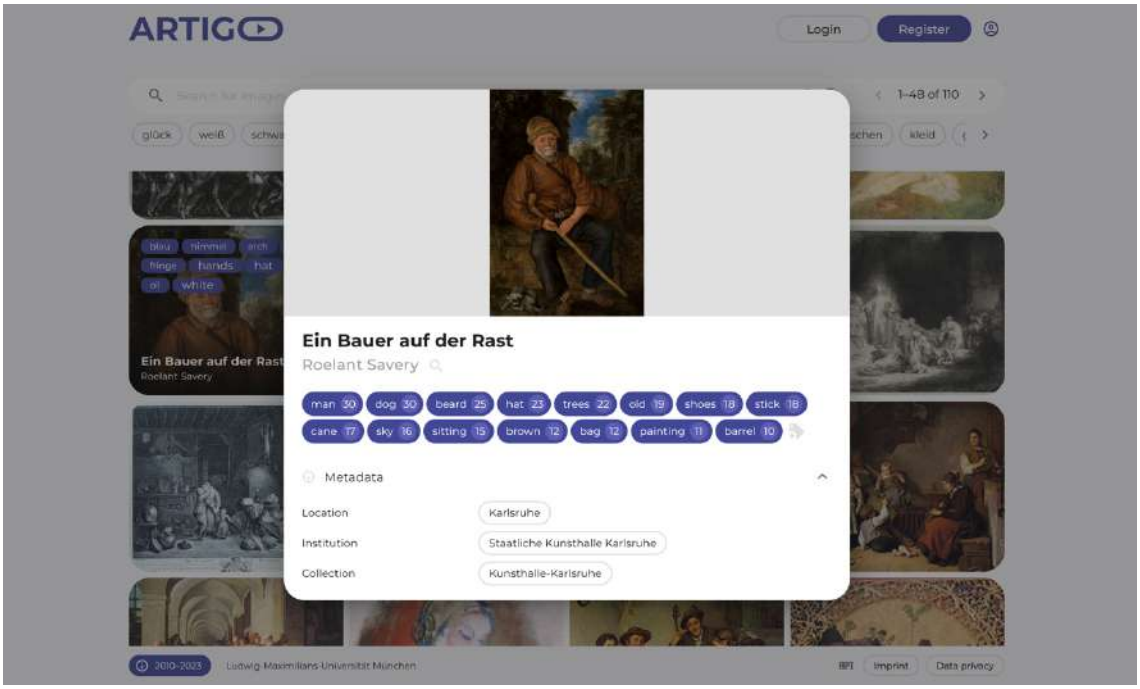

Image 14. Screenshot of the ARTigo game interface for annotating image regions based on tags, Credit: ARTigo. CC BY-SA 4.0

ARTigo's modular system permits effortless customization of games, facilitating an interactive experience tailored to individual preferences. This adaptability guarantees the platform's ability to meet evolving needs and specifications, rendering it a valuable tool for art history education. The personalization of games encourages creativity and innovation, fostering a dynamic and diverse user community. Consequently, virtual interactions translate into more profound in-person encounters with museums and archives. The data is accessible to the broader research community for scientific exploration, further contributing to the democratization of art history knowledge.

Credits

Current contributors: Project lead: Stefanie Schneider. Research assistants: Maximilian Kristen and Ricarda Vollmer.

Previous contributors: Project lead: Hubertus Kohle. Co-applicants: François Bry, Thomas Krefeld, Christian Riepl, and Klaus Schulz. Research assistants: 23 researchers (full list in project URL).

Financial support: Between 2010 and 2013, ARTigo was funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) under project number 161260864.

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Biographies

Stefanie Schneider (DE) is Assistant Professor for Digital Art History at the Ludwig Maximilian University of Munich. As a trained statistician and computer scientist, she has been actively engaged in the field of Digital Humanities since 2016. Her research interests lie at the intersection of traditional hermeneutics and contemporary quantitative methodologies in the realm of art-historical inquiry. Specifically, she advocates for the development of robust, efficient, and user-friendly software tools that can be utilized by both specialists and the general public alike.

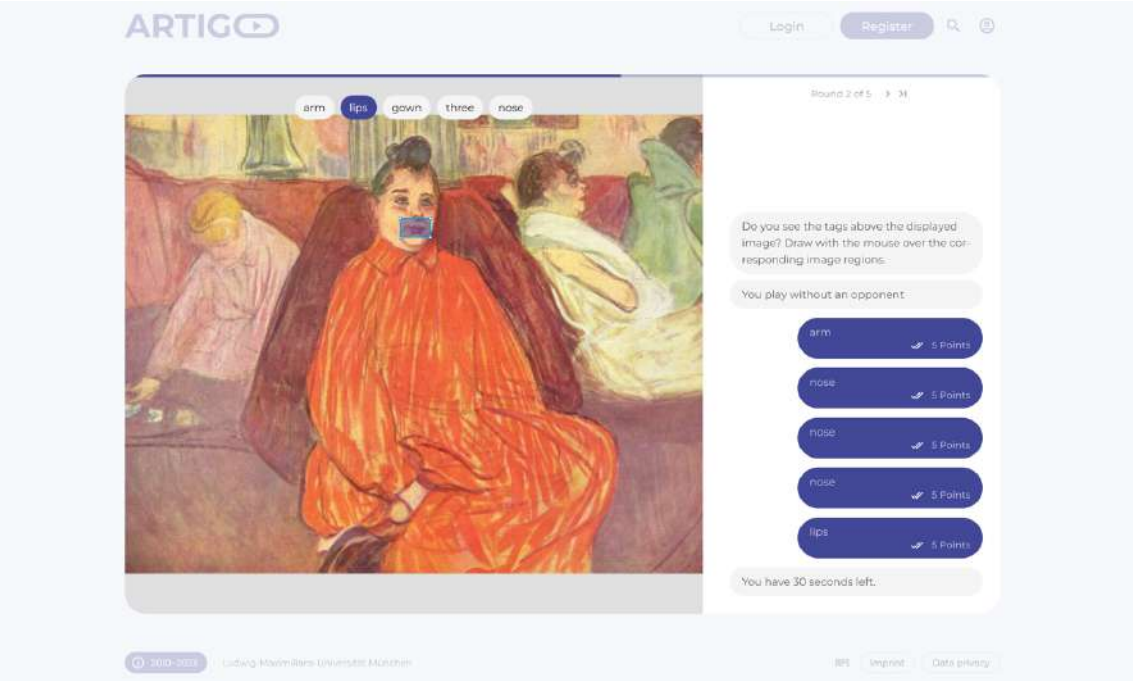

Image 15. Screenshot of the ARTigo game interface for annotating image regions based on tags, Credit: ARTigo. CC BY-SA 4.0

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Artigo invites citizens to play a game with a purpose: optimise an image database. Playing this game facilitates the tagging of a fast database of art pieces, adding metadata that helps to categorise and make sense of the items. The data is then licensed under Creative Commons BY-NC-SA 4.0. What is outstanding about this citizen science project is the sophisticated way it merges

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social media with image tracking and its impressive scale with in total of 9.669.410 taggings

Image 16. Catch the Water Monsters, Credit: Catch the Water Monsters Team

Catch the Water Monsters

Rosan van Halsema (NE), Marita Voogt (NE), Conny Groot (NE), Rutger Westerhof (NE), Frank Rigters (NE), Lena Arndt (NE), Sven Teurlincx (NE), Freek Uittenbogaart (NE)

natuurenmilieu.nl/watermonsters

In 2019, citizen science project *Catch the Water Monsters* was launched. The project trains and educates citizens to measure the quality of small water bodies in their environment. It consists of an active community of over 1000 citizen scientists. Over 1.600 small water bodies have been measured in the Netherlands in 2022 alone.

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The aim of the project is twofold: the first is to mobilize citizen scientists to keep track of water quality in small waterbodies, the second is to increase awareness on the impact of poor water quality on nature and biodiversity. The need for political action to improve water quality is ever growing as our citizen science research has shown that vulnerable ecosystems are being seriously threatened.

The Netherlands is at the bottom of European rankings on water quality and will probably not meet the required targets as set in the European Union's Water Framework Directive. To act, we need facts and measurements, but in the Netherlands, only the water quality in large water units is systematically monitored. The *Catch the Water Monsters* project fills that gap with citizen science to measure water quality in small water units, thereby adding crucial information to our existing knowledge on the state of our waters.

Within the *Catch the Water Monsters* project, the Netherlands Institute of Ecology (NIOO-KNAW) trains citizen scientists on how to conduct field research. Participants are taught to measure the different aquatic plant groups, measure the water clarity with a self-made secchi-disc, investigate the macrofaunal community with a dip-net, and they receive a measurement kit containing a tube to fill with a water sample. The citizens receive information on how and where to record the measurements.

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Image 17. Catch the Water Monsters, Credit: Catch the Water Monsters Team

Credits

The project is organized by Natuur & Milieu and the Netherlands Institute of Ecology (NIOO-KNAW). NIOO-KNAW provides the citizen scientists with the necessary training and analyses the results. The yearly results are communicated by Natuur & Milieu. The project is backed by 3 other nature NGO's, a list of district water boards and several companies.

Biographies

Natuur & Milieu (NL) is an environmental organization focusing on CO2 emissions and biodiversity loss in the Netherlands. The organization works with many stakeholders to influence national policy, corporations and the behavior of people.

natuurenmilieu.nl

The Netherlands Institute of Ecology (NL) performs and promotes groundbreaking ecological research on the relationships between species and their environment, and continually works for the benefit of nature and society.

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nioo.knaw.nl

Jury Statement

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The Netherlands faces significant challenges regarding the water quality of its inland water bodies. Catch the Water Monsters engages citizens to measure the water quality of more than 1500 bodies in the Netherlands involving hundreds of individuals. The jury highlighted the close connection between the local communities and the governmental institutes, which increases the potential for policy change.

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Image 18. Project activities in Kaunas, Credit: CitieS-Health (INT). CC BY-SA 4.0

CitieS-Health

Barcelona Institute for Global Health (ES), Ideas for Change (ES), Utrecht University (NL), Jožef Stefan Institute (SI), Epidemiologia & Prevenzione (IT), Vytautas Magnus University (LT)

CitieS-Health was a research project funded by the European Commission. It aimed to put citizens' concerns at the heart of the research agenda on public health and the urban environment. The approach adopted was a participatory citizen science strategy in which participants were involved in all phases of research. The main aims included producing new scientific evidence by building on the capacities of citizens and their insights on socially relevant questions; and developing methods, tools and insights that enable to easily scale-up and replicate similar citizen science projects.

The project successfully built five different citizen science projects in five European regions, with strong involvement of citizens in all project phases. The study in Barcelona, Spain, collected repeated data on cognitive tests and air pollution measurements. The results showed that citizens perform around a 5% worse on cognitive tests on the most polluted days.

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In Ljubljana, Slovenia, the study had two components, one targeting the society at large and one focusing on schools. Community level results revealed that well-being of individuals is affected by their activity and specifics of the micro-environment they are in. The evaluation of school activities showed that active involvement of pupils in research work increases their scientific literacy, thus contributing to STEAM. In the Serchio Valley, Lucca, Italy, citizens led the creation of a network of low-cost DIY sensors to monitor the concentration of particles in the area, publishing the data online.

Image 19. The CitieS-Health Study group. Credit: CitieS-Health (INT). CC BY-SA 4.0

Credits

CitieS-Health received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824484.

Participating institutions: Barcelona Institute for Global Health – ISGlobal (ES), Ideas for Change (ES), Utrecht University (NL), Jožef Stefan Institute (SI), Epidemiologia & Prevenzione (IT) and Vytautas Magnus University (LT).

Biographies

CitieS-Health Consortium (INT) is formed by experts in epidemiology, environmental sciences, social sciences, citizen participation, science communication and ethics, among others, from six institutions. These are the Barcelona Institute for Global Health – ISGlobal (ES), Ideas for Change (ES), Utrecht University (NL), Jožef Stefan Institute (SI), Epidemiologia & Prevenzione (IT) and Vytautas Magnus University (LT). The consortium was formed around a project funded by the European Union's Horizon 2020

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research and innovation programme. The *CitieS-Health* project aimed to put citizens' concerns at the heart of research agenda on environmental epidemiology by tackling health issues that concern them through Citizen Science. Citizens, along with scientists in five cities in Europe, co-designed and implemented epidemiological studies to explore how their living environment was affecting their health.

citieshealth.eu | twitter | facebook

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

CitieS-Health delved into the influence of living environments on people's health by centering citizens' concerns in environmental epidemiology research. Citizens from five cities across Europe joined forces with scientists to design and implement epidemiological studies from air or noise pollution to the role of public spaces for health. This also led to an interactive toolkit.eu to share learning and enable replication. This project was commended for its attention to detail in delivery to ensure citizens were involved throughout the process from setting the research questions to exploring the ethics and governance of the project – balancing both scale but also depth of engagement.

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Image 20. CurieuzeNeuzen - Credit: An Van Gijsegem (BE)

CurieuzeNeuzen

Filip Meysman (BE) and the CurieuzeNeuzen Consortium (BE)

CurieuzeNeuzen (Dutch for "Nosy Parkers") illustrates the disruptive power of large-scale citizen science. Complex environmental problems, such as air quality and climate adaptation, demand extensive data collection across whole cities or even whole countries. Scientists cannot collect such data on their own, as the logistics are simply too complex. The collective effort of thousands of enthusiastic citizens, contributing to large-scale data collection within their own street or garden, enables to crack these complex scientific problems.

To attract thousands of citizens, *CurieuzeNeuzen* deploys nation-wide communication campaigns (magazines, newspapers, social media, radio, TV), in co-creation with professional media partners. To generate high-quality data, *CurieuzeNeuzen* innovatively combines simple, but robust sensor technology (easily operated by citizens) with state-of-the-art Internet of Things technology. This approach enables citizens to accurately document the air quality in their street, or the heat stress in their garden. The resulting "big data" allows us scientists to generate highly detailed maps and test the latest computer

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models; something that would not be possible otherwise. This offers new scientific insights on how to improve air quality, and how to better weapon ourselves against the urban heat island and other impacts of climate change.

In parallel, *CurieuzeNeuzen* empowers citizens with data-driven knowledge, raising awareness about healthy living environments and the need to urgently address the climate challenge. Overall, *CurieuzeNeuzens*howcases how citizen science can directly contribute to societal challenges and informed policy decisions about air quality, mobility, spatial planning and climate change.

Image 21 CurieuzeNeuzen - The measuring tubes are attached to a measuring board. These tubes collect NO_2, an indicator for traffic, Credit: Bas Bogaerts (BE). CC BY-SA 4.0

Credits

All CurieuzeNeuzen projects were co-created through a unique collaboration between academic research groups, NGOs, local government services, professional media enterprises, and private companies.

Antwerp 2016: special thanks to citizen movement Ringland!

Flanders 2018: UAntwerpen, newspaper De Standaard, Flanders Environment Agency.

Brussels 2021: UAntwerpen, BRAL, Bloomberg Philantropies, Brussels Environment, De Standaard, Le Soir, BRUZZ.

CNIDT 2022: UAntwerpen, Flanders Environment Agency, VITO, Dept. EWI, Dept. Omgeving, Orange, Rabobank, AquaFin, BioPlanet, DPD, iFLUX.

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Biographies

CurieuzeNeuzen (BE) projects harness the scientific power of "massive" citizen science. Four projects have taken place, each involving between 2.000 and 20.000 participants (families, schools, companies). The first project in 2016 engaged 2.000 enthusiastic inhabitants of Antwerp (Belgium) to measure air quality across a city that struggles with high levels of air pollution. In 2018, a scaled-up version recruited over 20,000 citizens to install air quality sensors at their house across the whole region of Flanders (Belgium). In 2021, the air quality was mapped across the capital of Brussels with 3.000 citizen volunteers (including king and prime minister). In 2022, CurieuzeNeuzen went "climate meets Internet-of-Things" to document heat and drought across 5000 private gardens in Flanders. A spin-off company was created in 2022 to provide strategic advice to other citizen science projects.

curieuzeneuzen.be | citizensciencesupport.be | twitter

Filip Meysman (BE) is professor of Biogeochemistry at the University of Antwerp (Belgium). His research investigates how complex environmental problems — like climate change and air quality — can be tackled with computer models and verified by empirical data. For this, he created and coordinated the large-scale citizen science projects CurieuzeNeuzen. These projects have mobilized 10.000's of citizens to measure air quality in their street or heat stress in their garden. For this, he received the annual science communication award from the National Academy of Sciences in 2017 and 2022.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

CurieuzeNeuzen implements a series of citizen science projects in Belgium that harness the power of thousands of citizens in large-scale scientific research to tackle complex environmental problems. CurieuzeNeuzen brings together citizens to collect data in relation to relevant issues to them, such as air quality, heat, and drought. The jury also highlighted the effort made by the project to highlight the citizen's participation by engaging citizens with the importance of a healthy living environment and how scientific research and technology can be used to address societal challenges.

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Image 22. Dark Sky Meter - Credit: Jeremy Stanley. CC BY 2.0

Dark Sky Meter

Norbert Schmidt (NL)

The *Dark Sky Meter* app is an award-winning app that allows users to measure light pollution in their area. With this app, you can easily see how much artificial light is polluting the night sky in your location and share valuable information with light pollution researchers world wide.

The idea to measure the sky brightness with a smartphone camera arose during a walk in the mountains. It initially seemed impossible, but after a lot of experimenting (ranging from dark areas to toilets) it worked!

Dark Sky Meter was developed as a tool for (amateur) astronomers first, and people are able to share the results on a map. But it has grown to a full scale citizen science project, with almost 40.000 measurements on the map (see darkskymeter.com). Every measurement (users can decide if they want to contribute) is sent to globeatnight.org. An organisation that helps researchers and policy makers to map light pollution.

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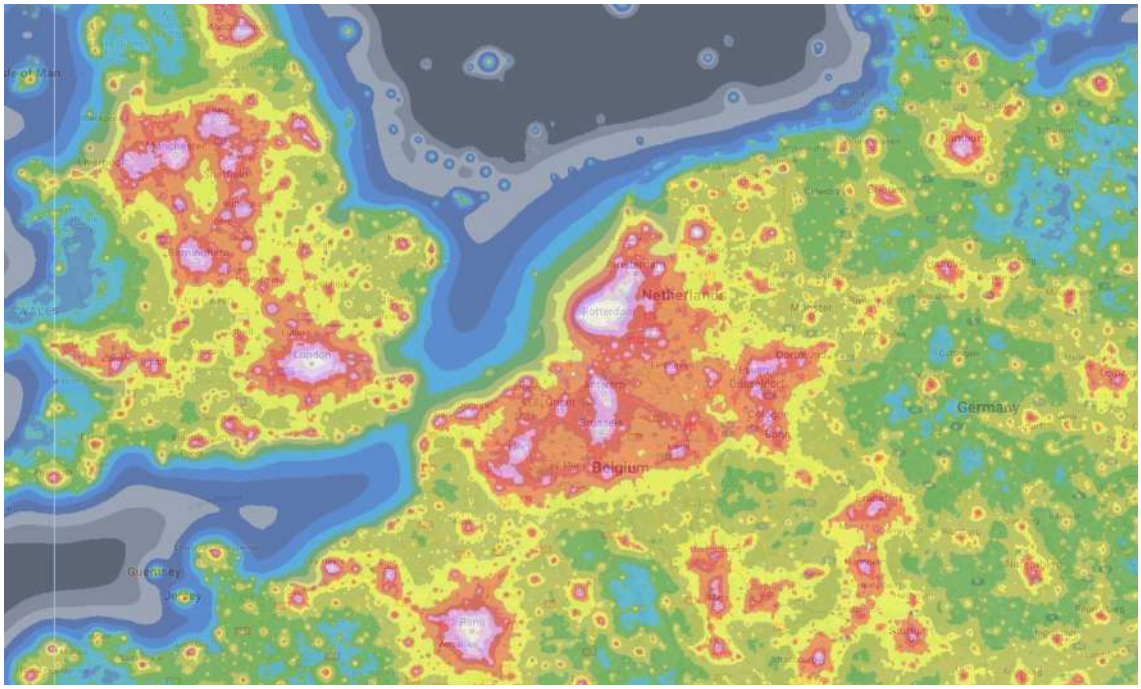

Image 23 Dark Sky Meter - Light pollution atlas., Credit: darkskymeter.com

Credits

The *Dark Sky Meter* app is created by Norbert Schmidt and Harro Treur, fellow (amateur) astronomers and defenders of dark, starry night skies.

Team: Norbert Schmidt (private), Harro Treur (volunteer), Christopher Kyba (light at night researcher, volunteer), Connie Walker (light at night researcher Globe at Night), Mario Hodzelmans (graphic design), The Dutch Astroforum.nl community. The CloudyNights (US) community.

Biographies

Norbert Schmidt (NL) is a passionate individual who has been creating citizen science apps for over 10 years. With a deep love of astronomy and nature, Norbert has always been committed to promoting the importance of protecting the environment and engaging citizens in the process. Through his work, Norbert has shown a talent for creating communities and connecting technologies with people. He understands the importance of user-friendly interfaces and collaborative tools, and has worked tirelessly to develop apps that can bring people together in the pursuit of common goals. waarnemen.com | twitter | GitHub

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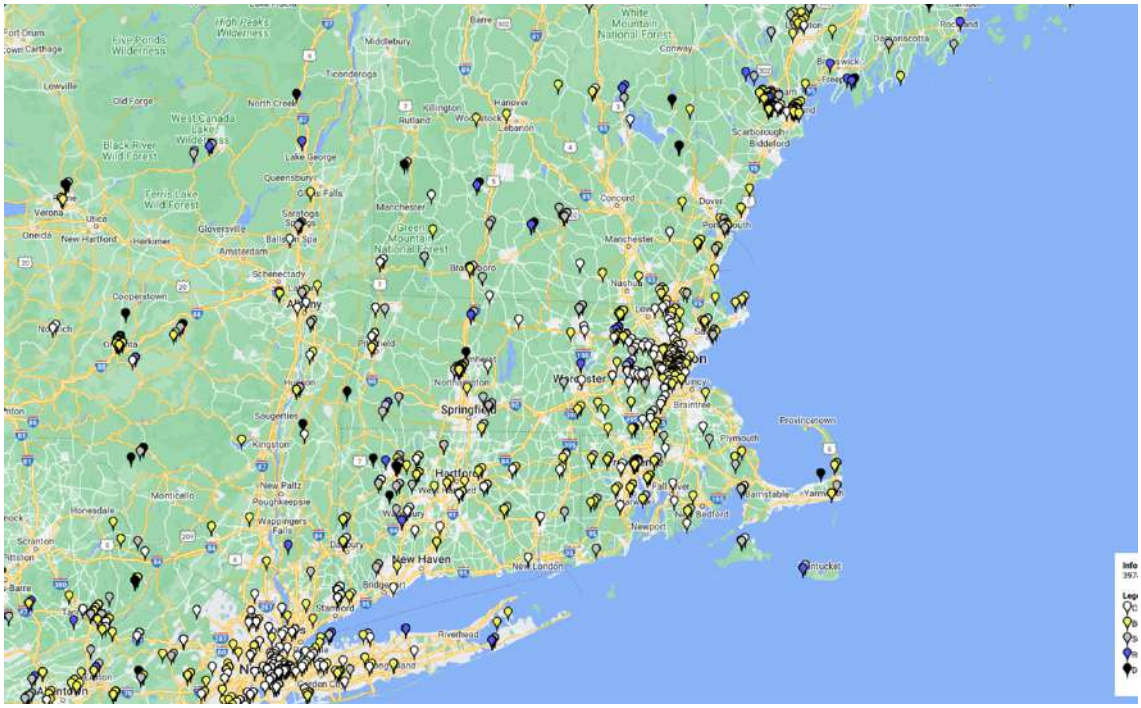

Image 24 Dark Sky Meter - Light pollution atlas., Credit: darkskymeter.com

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Dark Sky Meter is a citizen science project that uses crowdsourced data to measure light pollution around the world. The project utilises a mobile app that collects data on the brightness of the night sky, allowing users to help create a global map of light pollution. The app also provides users with information on how to reduce light pollution in their local area. The jury highlighted the role of Dark Sky Meter in supporting the global community that works on preserving and protecting the night sky for future generations.

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Image 25. Digi-ID Plius

Digi-ID PLUS

Esther Murphy (IE), Trinity College Dublin (IE), University of Zagreb (HR), Karolinska Institute (SE), MADoPA Living Lab (FR), Andalucian Ministry of Public Health (ES), University of Alicante (ES), Microsoft (US), WaytoB (IE), Access Earth (IE)

Digi-ID PLUS is a trans-disciplinary (expertise in intellectual disability (ID), engineering, public health, inclusive education) project co-designing accessible digital skills training with and for citizens with disabilities and advocating for digital accessibility to enable and empower better health and inclusion. Engaging 500+ EU citizens with disabilities, families/carers and professionals to co-design our digital skills learning platform and advocate for digital accessibility. Vital to our project are EU Citizen Advisory Panels (CAP), experts-by-experience recruited to co-design our programme and training as our teachers. CAPs comprise citizens with ID/autism, with diverse ages, gender, socioeconomic backgrounds and digital skills levels. CAP members are trained to become teachers and are the face and voice of our accessible video platform DigiAcademy. Significant impact for citizens with ID/autism health, well being and inclusion reported and associated benefits for wider society.

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Credits

Co-funded by the European Union through the EIT Health Education Strand (2022-2024).

Biographies

Esther Murphy (IE) is Principal Investigator for EIT Health funded "Digi-ID: accessible digital skills education programme for people with intellectual disabilities" at Trinity College Dublin School of Engineering. She holds a PhD in Disability Studies and MA in Intercultural Studies from Dublin City University, Ireland. With 15 years + experience in social science disability, mental health and inclusive technology research in academia, NGOs and collaborations with industry (created largest in kind partnership with Microsoft for Trinity College Dublin). With 50 + peer reviewed publications, and 50+ non peer reviewed reports and presentations for disability, education NGOs, government bodies and tech industry Esther is passionate about building trans-disciplinary citizen engaged research to co-create innovative impactful solutions to address societal challenges.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Digi-ID Plus is a cross-European project exploring how digital spaces can be more inclusive with and by people with intellectual disabilities. Adopting a participatory action research methodology, the project was co-created and co-designed by a citizen advisory panel to plan and implement the project and develop solutions to digital literacy and the barriers that still exist in society. It impressed the jury by demonstrating how participants can be meaningfully included throughout citizen science and the positive impact it can have on those taking part as well as the wider impacts of the research.

Funded by the European Union

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Image 26. Digital Violence: How the NSO Group Enables State Terror – Forensic Achitecture. Photo Credits: *Richard-Max Tremblay*

Digital Violence: How the NSO Group Enables State Terror

Forensic Architecture (GB)

Digital Violence maps the use of the malware Pegasus, developed by Israeli cyber-weapons company NSO Group, against activists, journalists and human rights defenders worldwide. To elucidate the extent of its reach and impact, the project produced a navigable digital platform, video investigations recounting the stories of targeted individuals, a sonic representation of collected data, and a video investigation presenting new research into the web of corporate affiliations within which NSO Group is nested. The project took shape during lockdown, and while reliance on remote communication made everyone all the more vulnerable to monitoring, a dispersed community of practice also began forming across borders and continents. Forensic Architecture joined forces with filmmaker Laura Poitras to speak with targeted activists from Saudi Arabia to Togo, and engaged investigators from The Citizen Lab and Amnesty International, famed whistleblower Edward Snowden and musician Brian Eno to map the global landscape of cyber-surveillance.

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Credits

Support received from Eyebeam Center for the Future of Journalism, CyberPeace Institute, Amnesty International.

Biographies

Forensic Architecture (GB) is a research agency, based at Goldsmiths, University of London, investigating human rights violations including violence committed by states, police forces, militaries, and corporations. Forensic Architecture works in partnership with institutions across civil society, from grassroots activists, to legal teams, to international NGOs and media organisations, to carry out investigations with and on behalf of communities and individuals affected by conflict, police brutality, border regimes and environmental violence.

Forensic Architecture's investigations employ pioneering techniques in spatial and architectural analysis, open source investigation, digital modelling, and immersive technologies, as well as documentary research, situated interviews, and academic collaboration. Findings from Forensic Architecture's investigations have been presented in national and international courtrooms, parliamentary inquiries, exhibitions at some of the world's leading cultural institutions, across international media, as well as in citizen's tribunals and community assemblies. Forensic Architecture was founded more than a decade ago, with its earliest projects dedicated to mapping the physical and architectural violence of Israeli settler colonialism in Palestine.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

People who speak up against human rights violations have become the target of Pegasus, a surveillance software that already gets applied in many countries around the world. This project tries to investigate how the NSO group that developed Pegasus, has spread in the last year and how it enables state terror. Targeted citizens took the risk of sharing their experience, making transparent who is profiting from surveillance. This project impresses with real-time data visualisation and comprehensive communication of research findings.

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Image 27. DRYRiVERS - Amélie Truchy (FR), Zoltán Csabai (HU), Bálint Pernecker (HU), Thibault Datry (FR)

DRYRivERS

Amélie Truchy (FR), Zoltán Csabai (HU), Bálint Pernecker (HU), Thibault Datry (FR)

DRYRivERS is a citizen science app for advancing the science and management of intermittent streams

Rivers are dynamic systems that experience hydrological variability, including flow cessation and drying. Intermittent rivers and ephemeral streams are watercourses that periodically cease to flow. This river type is the world's most widespread and range from ephemeral streams — that occasionally flow after heavy rainfall — to intermittent streams that may dry completely or subside to isolated pools. We designed a new smartphone app called DRYRivERS to monitor intermittent rivers and ephemeral streams. By collecting information on drying events, citizens will contribute to the mapping of drying rivers and help to improve scientific predictions of the future impacts of climate change on rivers.

Credits

This project was financially supported by the DRYvER project, which has received funding from the European Union 's Horizon 2020 research and innovation program under grant agreement no. 869226.

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Biographies

DRYRivERS (INT) was developed within the Horizon 2020 project, DRYvER. The work around DRYriVERS is led by a team of four researchers working on freshwater ecosystems: Amélie Truchy and Thibault Datry from INRAE (French National Research Institute for Agriculture, Food and the Environment (FR)) and Zoltán Csabai and Bálint Pernecker from the University of Pécs (HU). Zoltán Csabai is also affiliated to the Balaton Limnological Research Institute. DRYvER is coordinated by Thibault Datry. At the beginning of the project, Núria Cid (ES) helped designing the app. Throughout the development of DRYriVERS, the river managers from SR3A (FR) tested in the field the app and suggested improvements.

Amélie Truchy (FR) is a young researcher at INRAE (French National Research Institute for Agriculture, Food and the Environment). Her research focuses on the ecology of rivers, with a particular focus on streams and lakes impacted by human activities (e.g. dams, agriculture, forestry). Through her research, Dr. Truchy tries to assess the impacts of anthropogenic changes on freshwater community, ecosystem functioning and services, and ecosystem resilience. After graduating in 2018 for her PhD from the Swedish University of Agricultural Sciences, she moved as a post-doc at INRAE in 2021. In 2013, while still a PhD student, she earned the best post prize at the European conference for freshwaters (SEFS 8, Münster, Germany).

Zoltán Csabai (HU) is a hydroecologist with a focused interest on freshwater aquatic macroinvertebrates. He is currently working for the University of Pécs (Pécs, Hungary), Faculty of Science as associate professor and head of the Department of Hydrobiology, and for Balaton Limnological Research Institute as a part time senior research fellow. His research focuses on exciting and different but connected chapters of the aquatic macroinvertebrates' life: exploring distribution of aquatic insects in the Carpathian basin and in the Mediterranean using morphotaxonomy and DNA based methods; understanding the dispersal flight and developing a framework describing the process; revealing the reaction of individual species and the entire stream macroinvertebrate community to environmental stress (drying, nutrient enrichment, changes in habitat).

Bálint Pernecker (HU) is a young researcher and freshwater scientist working at the Department of Hydrobiology, University of Pécs. He graduated as a hydrobiologist (MSc) in 2014 from UP and since then he has been working there as an assistant research fellow (2017-2019) and assistant lecturer (2019-). He is currently working on his PhD thesis, which is about ecological experiments carried out in an artificial stream laboratory with aquatic macroinvertebrates. His research focuses mainly on two topics: the effects of

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drying up of small watercourses on the aquatic invertebrate communities, with special focus on one particularly interesting dragonfly species, Cordulegaster heros, which has been granted special conservation status in Europe. His other research topic is creating ecological experiments in an indoor artificial stream system.

Thibault Datry (FR) is a freshwater scientist at INRAE (French National Research Institute for Agriculture, Food and the Environment) leading the EcoFlowS lab in Lyon, France. His research focuses on the ecology of rivers and hyporheic zones, with particular emphasis on intermittent rivers and ephemeral streams. He has passion for understanding the effects of natural and anthropogenic changes on community and ecosystem processes at multiple scales and translating it into tools and guidelines for water managers. He is developing international research programs at the global scale, while his primary study area primarily includes lotic and lentic ecosystems in France, New Zealand and Bolivia, where he has active collaborations and frequent visits.

Image 28 DRYRiVERS - The dry channel of Glisinovac river in Croatia, Credit: Luka Polović (HR). CC BY-SA 4.0

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

The DRYRiVERS *project leverages citizen science to gather information on intermittent rivers, a variable and vital type of ecosystem. In this pan-European project, citizen scientists gather data through web and smartphone apps that would otherwise be difficult to obtain. The project team involved relevant and diverse stakeholders throughout the project's development, yielding a usable and intuitive interface and an openly published atlas where visitors can browse through European rivers and seasons.*

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Image 29. European Bird Census Council. CC BY-SA 4.0

European Bird Census Council

Mark Eaton (GB), Petr Voříšek (CZ)

Citizen scientists monitoring birds for policy, research and society in Europe

The *European Bird Census Council* nurtures pan-European cooperation on bird monitoring in order to inform conservation decision-making. The intitiative collects data through three citizen science projects and engages volunteer birdwatchers in simple recording methods on a massive scale. Through working together with national partners, each of these projects supports not only the fostering of local birdwatching communities, but also delivering a myriad of well-being benefits to each of the individual volunteers who participate.

The EuroBirdPortal (EBP) brings online bird records together from more than 100,000 citizen observers to show movements of birds across Europe in near real-time. The European Breeding Bird Atlas 2 (EBBA2) – one of the biggest biodiversity mapping projects ever undertaken – has received data from 120,000 participants to map the distribution of all of Europe's birds. The Pan-European Common Bird Monitoring Scheme (PECBMS) tracks trends in 170 species and produces world-leading biodiversity indicators. Each of these three projects are easy and engaging to take part in but produce top-quality scientific outputs that have found a myriad of uses, including at the highest levels of European Union policy-making.

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Credits

The initiative is grateful to EBCC national delegates, coordinators of monitoring schemes and other activities as well as supporting organisations. Its work would not have been possible without a work of thousands of dedicated and skilled volunteer fieldworkers across Europe.

Biographies

Mark Eaton (GB) has been working in conservation science, with a principal focus on the monitoring of birds, for almost three decades. Until recently he was Principal Conservation Scientist in Monitoring Science at the Royal Society for the Protection of Birds, the BirdLife partner in the UK. Much of this work involved in working with citizen scientists, such as the 500,000+ participants in the RSPB's annual Big Garden Birdwatch survey. His work has frequently had an international component and I have helped develop new monitoring programmes in Asia and Africa, as well as in numerous European countries. I joined the board of the EBCC in 2010, and became Chair in 2019.

Petr Voříšek (CZ) has worked at the Czech Society for Ornithology since 1996 in various positions, including Director, and has been involved in much of the EBCC's work over that time. He was first coordinator of the Pan-European Common Bird Monitoring Scheme and was instrumental in developing the scheme from the initial instigation in 2002 until 2018. He was also one of three individuals in the core team responsible for coordinating the European Breeding Bird Atlas 2, and over the last twenty years has played an immense role in developing the EBCC's network of citizen scientists across Europe. When the EBCC formed a central secretariat team in 2022, Petr was the obvious person to manage the office. Domestically, he is a member of the coordination team of the Czech common breeding bird scheme. Apart from the coordination, he is an active and keen volunteer contributor to bird monitoring studies — a true citizen scientist.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

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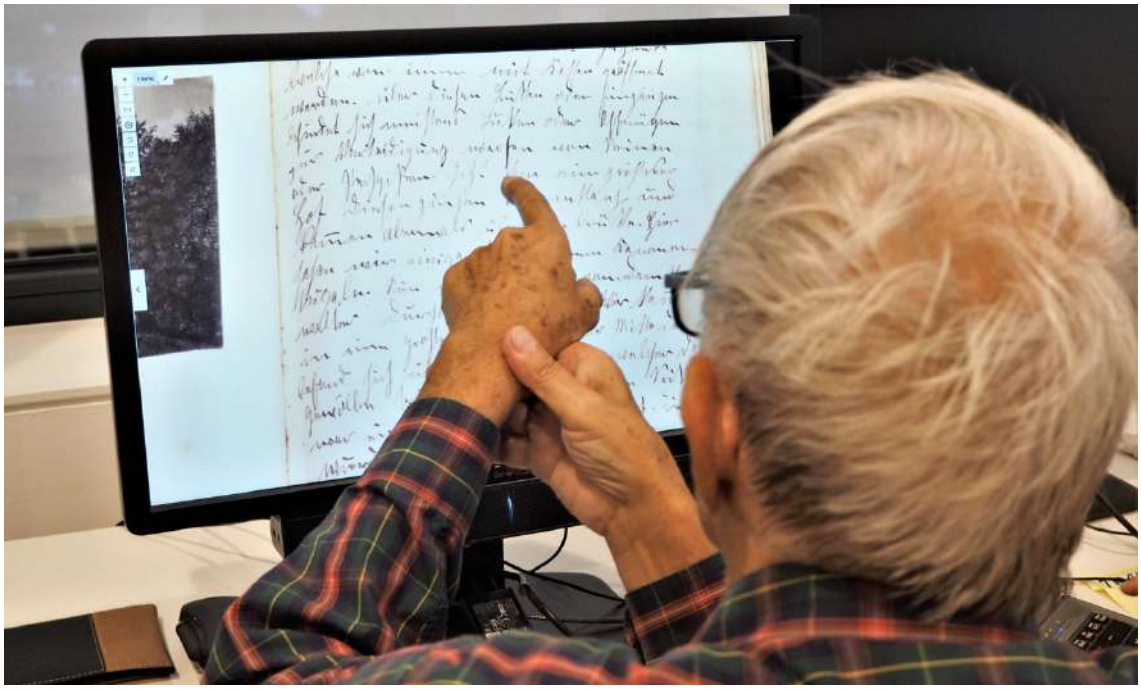

Image 30 Europeana Transcribe on Transcribathon.eu - Europeana Transcribe annotations, Credit: Facts & Files (DE), CC BY-SA 4.0

Europeana Transcribe on Transcribathon.eu

Frank Drauschke (DE), Facts & Files (DE), Europeana Foundation (NL), Austrian Institute of Technology (AT), Consortia of the EnrichEuropeana projects (INT)

The Project *Europeana Transcribe on Transcribathon.eu* platform is an online citizen science initiative for the transcription and enrichment of digitised historical materials from cultural heritage institutions from across Europe, which are available on Europeana.eu. Engagement with the platform is supported by events known as Transcribathons, where citizen scientists can participate, compete with each other, and get rewarded for their achievements. These Runs take place online or during physical events. The aim is to make hand-written historical documents computer readable and accessible for everyone. All contributions are open access, and the results can be reused immediately.

Europeana Transcribe on Transcribathon.eu was initiated by the Europeana Foundation and Facts & Files Berlin. During two EU-projects with eleven partner institutions (2018-2020, 2021-2023) the platform was further developed and expanded with new features and AI functionalities. It is enabling, among other new features, the use of Artificial Intelligence, such as Handwritten Text Recognition technology developed by READ COOP. The project now also involves applying natural language processing and big data analysis technology to analyse transcriptions and their translations, providing support for semantic metadata enrichment, clustering and classification.

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Credits

Project leads: Facts & Files: Frank Drauschke (DE); Europeana Foundation: Ad Pollé (NL); AIT: Sergiu Gordea (AT); PSNC: Tomasz Parkoła (PL).

The platform was advanced and further developed with project partners of the EU-funded projects:

EnrichEuropeana 2018-2020: Austrian Institute of Technology (AT); Europeana Foundation (NL); Facts & Files (DE); Poznan Supercomputing & Networking Center (PL); NET7 S.r.l. (IT); Biblioteca Judeteana "Octavian Goga" Cluj (RO); Österreichische Nationalbibliothek (AT).

EnrichEuropeana+ 2021-2023: Austrian Institute of Technology (AT); Europeana Foundation (NL); Facts & Files (DE); Poznan Supercomputing & Networking Center (PL); READ-COOP (AT); Digital Repository of Ireland (IRL); Dublin City Library and Archive (IRL); University Library Wroclaw (PL); State Archives Zagreb (HR)

Both projects were co-financed by the Connecting Europe Facility of the European Union.

Image 31 Europeana Transcribe on Transcribathon.eu - Transcribathon Rome 2018, Credit: Facts & Files (DE). CC BY-SA 4.0

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Biographies

Europeana Transcribe on Transcribathon.eu (INT) started with the first prototype of the Transcribathon tool that was created in 2014 by Facts & Files and Olaf Baldini and funded by the German Federal Government Commissioner for Culture and the Media (BKM). This tool was further developed in 2016 into the Transcribathon Europeana 1914-1918 website, which focused on the transcription of crowdsourced materials form the time of the First World War, gathered in over 200 collections days by the Europeana 1914-1918 project from all parts of Europe. During two EU-projects with eleven partner institutions (EnrichEuropeana 2018-2020, (EnrichEuropeana+ 2021-2023) the platform was redeveloped to open up to all materials available on Europeana and continuously added with new functionalities and features.

Image 32 Europeana Transcribe on Transcribathon.eu - Transcribathon Rome 2018, Credit: Facts & Files (DE), CC BY-SA 4.0

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Europeana gives access to millions of cultural heritage items from institutions across Europe such as libraries, archives, museums or galleries. All of them share their media such as images, music or texts with a network of aggregating citizen scientists who enrich it with additional information. This hard work is designed as a creative, fresh as well as thought-provoking process, that in an unorthodox way empowers us to critically engage with our cultural heritage.

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Image 33. EVE Onlines Project Discovery - Credits: © 2023 CCP ehf.

EVE Online's Project Discovery

CCP (IS), MMOS (CH), McGill University (CA), BC Cancer Foundation (CA), ISAC (USA), Cytobank (USA), Dotmatics (USA), BD (USA), University of Modena and Reggio Emilia (IT), University of Geneva (CH) , Human Protein Atlas (SE)

Project Discovery III: What if we said a videogame was set to be instrumental to better understand COVID-19?

Project Discovery is the first pioneering implementation of the Massively Multiplayer Online Science concept: the integration of citizen science (CS) with major video games to resolve the user acquisition and engagement problems in CS. During the last 8 years, we engaged over 1.3 million citizen scientists (more than 5.5 million over all MMOS collaborations), which made our projects one of the most active CS projects ever.

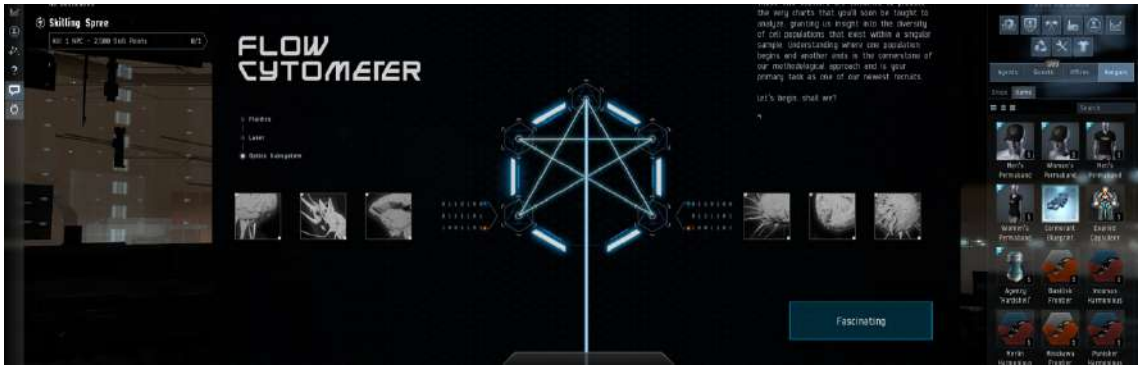

Image 34. EVE Onlines Project Discovery - Credits: © 2023 CCP ehf.

Funded by the European Union

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This unprecedented success was praised in articles worldwide in journals like the New Yorker, Wired, BBC, Neue Zurcher Zeitung and many more, reaching tens of millions with science communication. Our projects were awarded several prestigious awards, like the Innovation Award of the University of Geneva or the Webby Awards and were among the 2021 winners of the Falling Walls Engage science award.

Project Discovery is an in-game citizen science project that exists within the popular massively multiplayer online computer game, EVE Online. It has previously been utilised by the University of Geneva to help classify exoplanets (helping team member Nobel laureate Professor Michel Mayor) and aid in mapping millions of uncategorised proteins in the human body, by using the manpower of hundreds of thousands of players to provide large-scale data analysis. Most recently, in collaboration with McGill University, the British Colombia Cancer Research Centre, and the University of Modena and Reggio Emilia, it leveraged its playerbase to speed up critical research processes on COVID-19. In EVE Project Discovery: COVID-19, players are charged with analysing large sets of data to build a picture of how the virus affects the immune system, via flow cytometry and therefore teach a learning algorithm to automate the process entirely – something which usually takes countless man hours in a standard medical trial.

Image 35. EVE Onlines Project Discovery - Credits: © 2023 CCP ehf.

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Credits

EVE Online's Project Discovery has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement Nr 732703

Biographies

CCP Games (IS) is a leading European independent game developer that has been praised for its artistry, technology and game design that facilitates emergent behavior, empowering players with compelling means of self-expression. With the launch of EVE Online in May 2003, CCP established itself as a pioneer of cutting edge massively multiplayer games, winning numerous awards and receiving critical acclaim worldwide. As EVE Online's Creative Director, Bergur Finnbogason is in charge of setting the creative path for the epic sci-fi universe of New Eden, the setting of EVE Online. CCP was the partner of MMOS in creating Project Discovery, who is the Swiss start-up, the innovator and solution provider behind the large-scale citizen science-videogame collaborations of Project Discovery and Borderlands Science. During the last 8 years MMOS citizen science games engaged over 5.5 million players in science related activities, yielded over 730 million data analysis submissions. The unprecedented success of Project Discovery was praised in articles worldwide in journals like the New Yorker, Wired, BBC, Neue Zurcher Zeitung and many more, bringing the message to tens of millions. These projects were awarded several prestigious awards, like the Innovation Award of the University of Geneva or the Webby Awards and MMOS were among the 2021 winners of the Falling Walls Engage science award.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Project Discovery is a pioneering integration of a citizen-science approach to a Massively Multiplayer Online Game concept. Integrating citizen science with EVE Online led to the engagement of 1.3 million online players with scientific discovery. EVE Online players were challenged to analyse data on three different research topics: Proteins (proteomics), exoplanets (astronomy) and Flow Cytometry (immunology). The Jury emphasised the diversity challenges of the EVE Online community but also highlighted the potential of using video games as platforms for public participation in the scientific enterprise.

Funded by the European Union

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Image 36 GEOVACUI-2- Credit: Carmen Mínguez (ES). CC BY-SA 4.0

GEOVACUI-2

Carmen Mínguez - Complutense University of Madrid (ES), Marta Martínez-Arnáiz - University of Burgos (ES), Javier Martín-Vide - University of Barcelona (ES), José Damián Ruiz Sinoga - University of Málaga (ES), José Ojeda Zújar - University of Sevilla (ES), Elena Bárcena-Martín - University of Málaga (ES)

Citizen Science and cooperation initiatives against depopulation of rural areas

GEOVACUI-2: citizen science and cooperation initiatives against depopulation in rural areas is a citizen science project, following the work started in the *GEOVACUI-1: rural societies in empty territories and their productive potential*. Both have tried to deepen the knowledge of the phenomenon of depopulation.

GEOVACUI presents, from its beginnings, a geographical approach, and a practical spirit that enhances the value of community work. It is an opportunity to keep open a debate that allows deepening, in a collaborative way, the knowledge of the causes, consequences, problems and opportunities linked to the situation of depopulation in rural areas. In addition, the project promote scientific culture in society.

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To do this, scientists have shared information through different channels of participation. The most frequent method of gathering data was the use of an online questionnaire, but there were also workshops carried out with agents and the civilian population. All the information gathered and agreed upon has been essential for the achievement of the project and the generation of deliverables.

Image 37. GEOVACUI-2- School, Credit: Carmen Mínguez (ES). CC BY-SA 4.0

In the second edition, the researchers leading the project wanted to give visibility and voice to a lesser-known rural Spain, active and rich in values and initiatives. To do this, through citizens, it seeks to learn about the initiatives that favor population fixation. The results have materialized in a repository of bibliographic materials; a repository of good practices, consisting of an interactive geovisor with which to view the collaborative map with the initiatives and a platform for personalized consultation; a document with the basic elements of good practices and a decalogue of conclusions and recommendations.

GEOVACUI is a NEWSERA pilot project, and it is included in the Observatorio de la Ciencia Ciudadana en España and eu-citizen.science. The project is supported by the Spanish Foundation for Science and Technology (Ministry of Science and Innovation).

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Credits

The project is grateful for the financial support of the Spanish Foundation for Science and Technology (FECYT), the universities of the team members and the Ars Civilis Foundation. We would also like to thank the active participation of the Santa María de Albarracín, Pueblo Viejo de Belchite and Ibercivis Foundations, the town councils of Benaoján, Benarrabá, Calasparra, Genalguacil, Jimera de Líbar and Valdealgorfa, the Congress of Deputies, political platforms and associations against depopulation, as well as local and regional development institutions and schools that have welcomed us in their facilities, provided essential information for the development of the project and collaborated in the dissemination of the results. We would also like to thank all the anonymous citizens who have actively participated in the different phases, enriching the project.

Image 38. GEOVACUI-2 - Policy Makers, Credit: Carmen Mínguez (ES). CC BY-SA 4.0

Biographies

GEOVACUI-2 (ES) research team is made up of five geographers and one economist from five Spanish public universities: Complutense University of Madrid, University of Burgos, University of Barcelona, University of Malaga and University of Seville. The team is gender balanced and is composed of four Full Professors and two Associate Professors. Its members present a wide range of experience, complementary to each other, in the different aspects of the project: socio-economic dynamics of depopulated areas, sustainable agri-food systems, territorial heritage, vulnerability and resilience assessment, big data handling, geoinformatics applications, cartography, SDGs, knowledge dissemination and Citizen Science.

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Carmen Mínguez (ES) is an Associate Professor in Geography at the Complutense University of Madrid. Her research activity has focused on the relationships between tourism and historic cities, specifically focusing on how to improve cultural heritage and functionally revitalize historic centers and monumental areas of cities. In recent years, she has incorporated into her research the use of Big (Geo) data and the Citizen Science approach for the study, planning and management of destinations. She is a member of the Tourism, Heritage and Development Research Group.

Marta Martínez-Arnáiz (ES) is Associate Professor in Geography at the University of Burgos. She belongs to the Research Group on Geographical Studies and Territorial Analysis. Member of the Spanish Association of Geography, she is currently the president of the Working Group on Landscape of this Association. The main lines of research are oriented towards the rural areas, with special interest in the socio-economic dynamics of depopulated areas, sustainable agri-food systems, territorial heritage and rural landscape. Recently, she has incorporated Citizen Science methods into her research.

Javier Martín-Vide (ES) is Full Professor of Physical Geography and Climatology at the University of Barcelona. Academic of the Royal Academy of Sciences and Arts of Barcelona. Specialist in probabilistic analysis of precipitation and climate change. President of the Spanish Association of Climatology (1999-2004) and of the Association of Spanish Geographers (2009-2013). Director of the Water Research Institute (IdRA, UB) (2015-2019). He has published 30 books and about 300 articles. He has been a reviewer of the 4th and 5th IPCC. A recognized speaker, he frequently participates in the media.

José Damián Ruiz Sinoga (ES) is Full Professor of Physical Geography and director of the Geomorphology and Soils Lab at the University of Málaga. Academic of the Academy of Sciences of Málaga. His research activity has focused on the analysis of territorial processes, risks and vulnerabilities in the framework of Global Change and at different scales in the Mediterranean area, and in the realization of synthetic indices of vulnerability and resilience, as a result of the grouping of territorial, environmental, demographic, social and economic vulnerability indices.

José Ojeda Zújar (ES) is Full Professor of Physical Geography and GIS at the University of Sevilla. Lines of investigation include Coastal Planning and the Marine Environment (Territorial and Environmental Planning and Management of Marine Resources) and Citizen Science. Specialist in Processes and Risks in the Coastal Zone (coastal erosion, flooding, etc) and vulnerability assessment. Also, in Geographic Data Dissemination Technologies (Web Mapping). Responsible for the Research Group on Coastal Planning and Territorial Information Technologies.

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Elena Barcena-Martín (ES) is Full Professor at the Universidad de Málaga (Spain) and Associate Editor of Journal of Economic Inequality and Hacienda Pública Española/Review of Public Economics. She is Treasurer of the Society for the Study of Economic Inequality (ECINEQ). Research interests: Economic Inequality, Deprivation and Poverty, Income Mobility and Poverty Dynamics, Economics of gender and children, Public Policies and Social Welfare.

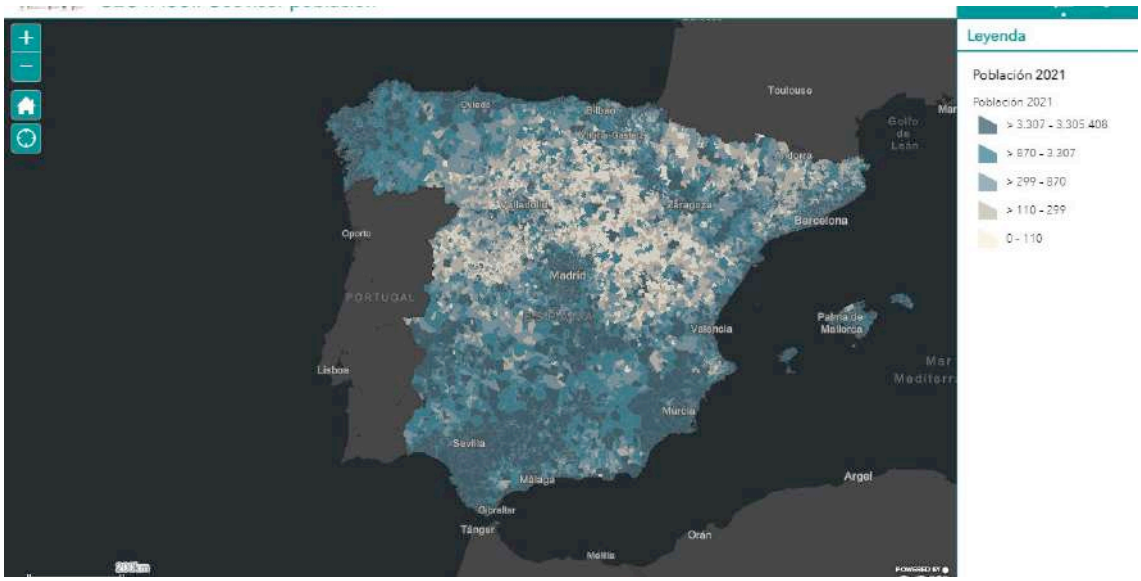

Image 39. GEOVACUI-2 - Population Map, Credit: Carmen Mínguez (ES). CC BY-SA 4.0

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

To meet the challenge of rural depopulation in Spain, this citizen science project aimed to support conversations and debate around the issue besides wider public engagement activities to foster a culture of scientific curiosity with affected communities.

It aimed at giving visibility and voice to a rural Spain that is less known, active and rich in values and initiatives. The results are a repository of bibliographic materials; a repository of good practices (an interactive geo-viewer with which to visualise the collaborative map with the initiatives and a platform); a document with the basic elements of the good practices and a decalogue of conclusions and recommendations.

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Image 40. HARNESSTOM Citizen Science Platform

HARNESSTOM Citizen Science Platform

Joan Casals (ES), Ivanka Tringovska (BG), Andrea Mazzucato (IT), Salvador Soler (ES), Gancho Pasev (BG), Maria José Díez Niclós (ES), Antonio Granell Richart (ES)

Plant genetic resources play a pivotal role in food sustainability. Despite a huge genetic diversity preserved in germplasm banks, it remains underutilized, mostly because the materials are hindered to the final users. With the aim of transferring this knowledge, citizen science strategies are being implemented within the HARNESSTOM project. To identify key traits that drive consumer acceptance, a survey was conducted on a European scale (3,123 participants). The results have been used to filter germplasm collections and to select a panel of 241 promising varieties. These have been submitted to the evaluation of farmers through Participatory Selection trials (63 farmers), chefs through sensory analysis, and citizens through the distribution of seed kits (581 citizens). 500 high-school students are participating in the data analysis. Overall *HARNESSTOM* is evaluating different citizenmethodologies to speed up the transfer of results from European research projects to the farmers' fields.

Credits

Supported by European Commission's H2020 Research and Innovation program through HARNESSTOM grant agreement No. 101000716

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Image 41. HARNESSTOM Citizen Science Platform - Farmers receiving the plantlet kit, Credit: HARNESSTOM Citizen Science Platform

Biographies

Joan Casals Missio (ES) is an Agricultural Engineer (UPC, 2006), Master in Peri-urban Agriculture (UPC, 2009), and PhD in Agrifood Engineering and Biotechnology (UPC, 2012). Serra Hunter Lecturer at the Polytechnic University of Catalonia. Scientific Director of the research center Fundació Miquel Agustí (FMA) and of the Mixt Unity "Breeding and valorization of vegetable landraces" (UPV-UPC). His research has focused on plant genetic resources conservation (PGR) and the plant breeding of horticultural species for quality traits, especially the improvement of traditional tomato varieties for organoleptic characteristics. He is responsible for the tomato collection (>900 accessions) of the FMA-UPC Germplasm Bank, leading different plant breeding programs and research and transfer projects related to the conservation of PGR and rural development.

Maria José Díez Niclós (ES) is a Professor at the Department of Biotechnology from the Polytechnic University of Valencia and director of the Germplasm Bank of the Instituto de Conservación y Mejora de la Agrodiversidad Valenciana (COMAV-UPV). Her research has focused on deciphering the origin and domestication of tomato, and the study of the genetic diversity of primary and secondary genepools.

Ivanka Tringovska (BG) is Associate Professor and Deputy Director at the Maritsa Vegetable Crops Research Institute. Her research has focused on deciphering the genetic resistance of tomatoes to different viruses, and developing sustainable production techniques in tomatoes and other related horticultural crops.

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Andrea Mazzucato (IT) is a Professor at the Department of Agriculture and Forest Sciences from the Università degli Studi Della Tuscia. His research has focused on the analysis of the genetic diversity of tomato landraces, boosting its cultivation in low input conditions, and on the genetic regulation of flowering.

Antonio Granell Richart (ES) is a Research Professor at CSIC. Durig his PhD he did pioneering work with pathogenesis related proteins and then moved as a post doc to work for more than three years on plant molecular genetics at the Plant Science Institute in Penn University (Cashmore's lab). He then joined the Plant Group at the Instituto de Agroquímica in Valencia to work on plant senescence. Since 2006 his main interest has been fruit quality using tomato as model system but sometimes also in Citrus and Peach fruit. A huge effort has been put into developing technologies (omics technologies; specially metabolomics, and transcriptomics), participation in international consortia such as the Tomato Sequencing Consortium and in making the genomic information available to the plant research community,

Image 42. HARNESSTOM Citizen Science Platform - Citizens harvesting their HARNESSTOM varieties,

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

This pan-European project involves farmers, scientists, citizens and chefs to explore the real-world differences arising from the genetic diversity of tomatoes. The research for HARNESSTOM could not be carried out without the projects' citizen scientists. From contributing tomato farming or growing practices to understand how different tomato species survive in the real world, to participating in sensory surveys and evaluations to discern their tastiness, this transdisciplinary project democratises the variety of tomatoes stored within European germoplasm banks, and helps determine how they can contribute to future food security – and enjoyment.

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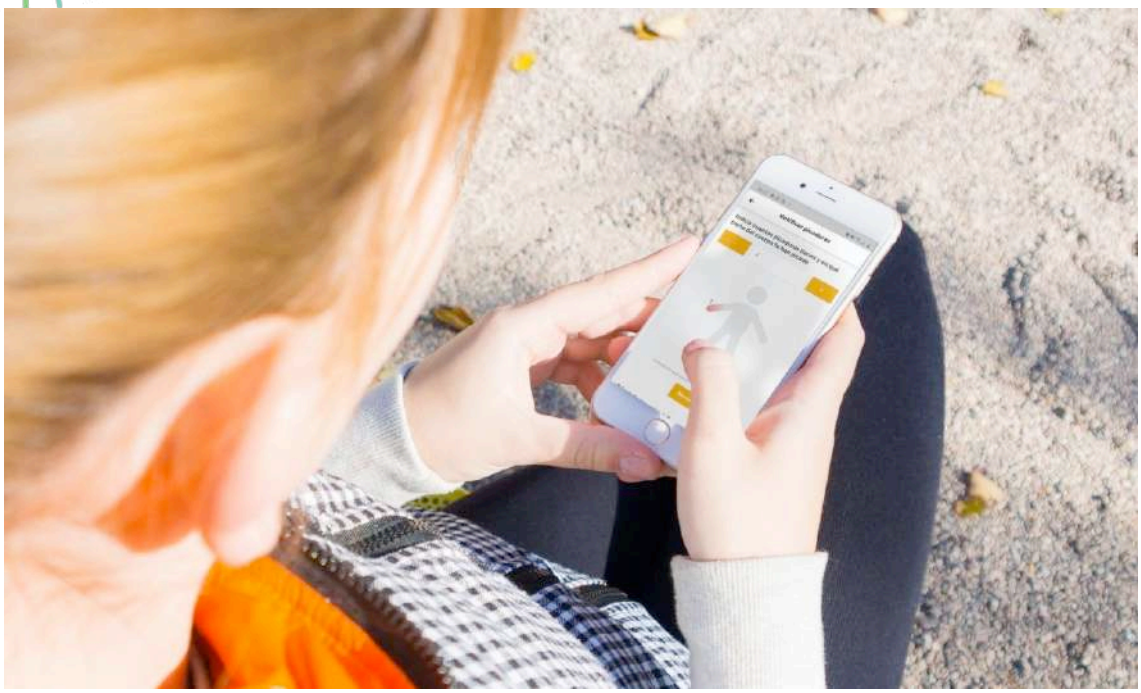

Image 43. Mosquito Alert: - Community intelligence for mosquito-borne disease preparedness and response, Credit: Mosquito Alert

Mosquito Alert

CEAB-CSIC (ES), UPF (ES), CREAF (ES), ICREA (ES), Xatrac (ES). Coordination Team: Frederic Bartumeus (ES), John Palmer (ES/US), Alex Richter-Boix (ES), Aitana Oltra (ES), Agustí Escobar (ES), Joan Garriga (ES), Živko Južnič-Zonta (ES/SI), Monika Falk (ES/PL), Enric Pou (ES), Elisa Mora (ES), Roger Eritja (ES), Isis Sanpera (ES), Simone Mariani (ES/IT), Santi Escartín (ES), Ariadna Peña (ES)

Community intelligence for mosquito-borne disease preparedness and response

Vector management is the main method for tackling many of the world's most burdensome infectious diseases, such as malaria and dengue. Effective methods of targeting mosquitoes that transmit pathogens saves lives and protects the health of millions. *Mosquito Alert* brings citizen science and digital technologies to encourage cost-effective and sustainable vector management, fostering intersectoral communities, and adding operational tools that work locally while offering global solutions.

Data is collected by citizens using a mobile phone app and validated by an international network of entomologists. Results are shared using open science protocols. Collaborations are constantly sought to improve and transfer knowledge for a common benefit. This open innovation initiative has advanced the knowledge of mosquitoes as disease vectors by mapping

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population distributions, discovering species of concern in new regions, and constantly adjusting the fitness for use of our citizen science methodologies.

Participation statistics and a public interactive map can be found within the Mosquito Alert Data Portal. The Mosquito Alert Data Portal provides a single entry point for information compiled by Mosquito Alert. Its aim is to serve the needs of those seeking detailed information on updated time series data collected by Mosquito Alert.

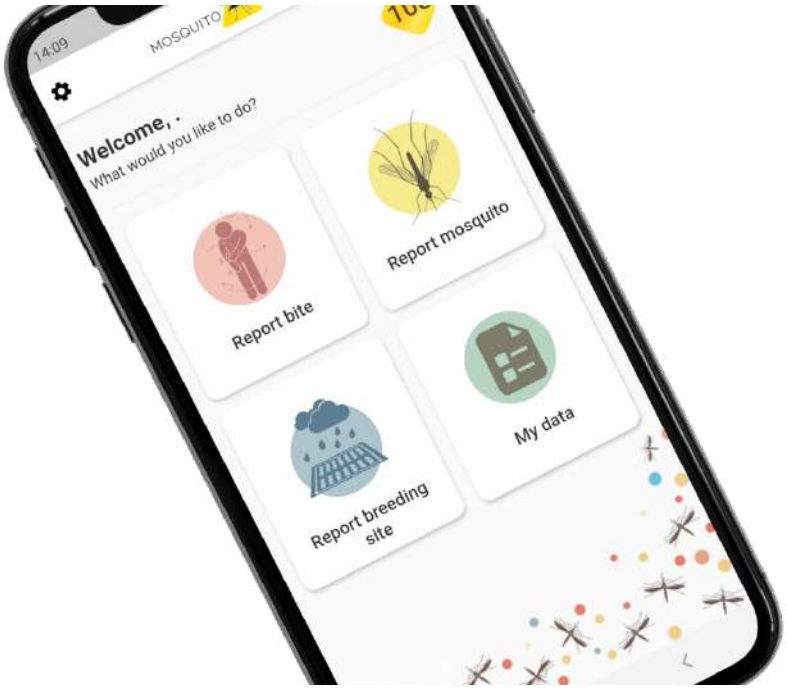

Image 44. Mosquito Alert: - Community intelligence for mosquito-borne disease preparedness and response, Credit: Mosquito Alert

Credits

Mosquito Alert is possible thanks to funding and resources provided by european research networks (e.g. COST Action, INOVEC), collaborative european projects (e.g. HMIP-ERC project, E4Warning, IDAlert, VEO), national funding schemes (Spanish National R&D Plan, including FECYT projects; Dipsalut tenders, Spain; Barcelona City Council R&D calls, Spain; Spanish Ministry of Health R&D contract; OH-PACT, NWO, Netherlands) or private funding schemes (e.g. Big Mosquito Bytes, la Caixa Foundation, Spain).

Also, several local, regional, national and international institutions and professionals have been or are committed to the *Mosquito Alert* initiative, by giving support in data collection, data validation, data and resources sharing, public engagement, dissemination, influencing public policy, surveillance and control activities, including the entomologists that integrate the Spanish Network for Digital Entomology and the European Network for Digital Entomology from *Mosquito Alert*.

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Biographies

Mosquito Alert (INT) started in 2012, when Frederic Bartumeus (half biologist, half physicist and an enthusiast of movement science), Aitana Oltra (environmental scientist and GIS expert) and John Palmer (sociologist working on human mobility and disease ecology) decided to join efforts to set-up a new citizen science project aiming at exploring alternatives to expensive and time-consuming traditional surveillance and control programmes for the invasive Asian tiger mosquito. The initiative was launched in 2013 as a pilot program in some Spanish schools. In 2014 it was relaunched for participation by adult citizen scientists anywhere in the world, but still with a focus on tiger mosquitoes in Spain. In the following years, more target species were added. The app was translated into 20 languages together with a push for geographic expansion, especially at the European level. Currently, an international network of >90 entomologists and several regional, national and international entities collaborate with the project and help implement it at an European scale. The project is coordinated from Spain by an interdisciplinary team of entomologists, IT and communication experts.

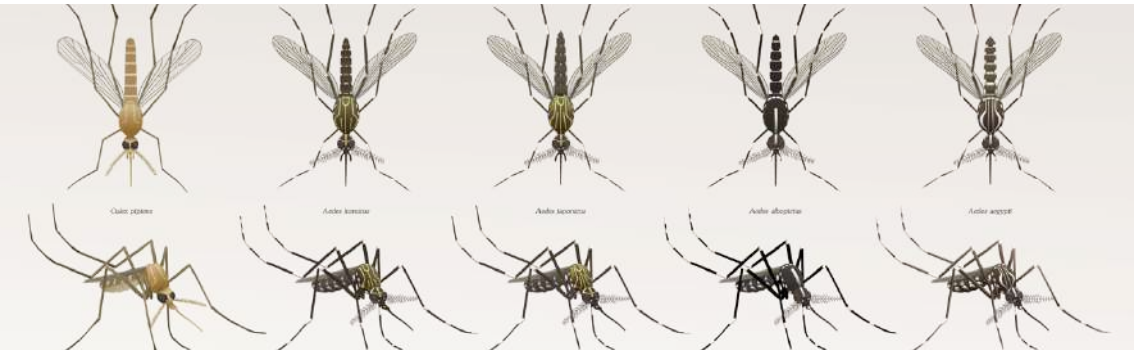

Image 45. Mosquito Alert: - Community intelligence for mosquito-borne disease preparedness and response, Credit: Mosquito Alert

Frederic Bartumeus (ES) is a an ICREA Research Professor in Computational and Theoretical Ecology at CEAB-CSIC and holds an associate research position at CREAF. His research interests focused at theoretical and computational ecology, animal behaviour, movement ecology, vector-borne diseases and model organisms. He co-directs Mosquito Alert.

John Palmer (ES/US) is an associate professor in the Department of Political and Social Sciences at Universitat Pompeu Fabra, where he is a member of the Sociodemography Research Group and the Interdisciplinary Research Group on Immigration. His research explores human mobility, inequality, and health from the perspectives of multiple disciplines, including sociodemography, ecology, and law. He co-directs Mosquito Alert.

Alex Richter-Boix (ES) is a team member of Mosquito Alert and currently contributes to the coordination of several scientific projects. His background in ecology and evolutionary sciences has led him to participate in research

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related to invasive species and local adaptation. In Mosquito Alert, he plays a crucial role in developing the project's scientific and outreach strategies.

Aitana Oltra (ES) is scientific coordinator and co-founder of the Mosquito Alert citizen science project. Graduated in environmental sciences, expert in geographic information systems (GIS) and European master's degree in water and cost management. Experience in the implementation of citizen science, innovation and open science, as well as management of research and innovation projects and initiatives.

Agustí Escobar (ES) has a degrees in both Biology (Universitat Autònoma de Barcelona, 1997) and Computer Systems Engineering (Universitat Oberta de Catalunya, 2012). He works as a technician at CREAF, where he develop and maintains web applications with a strong geospatial flavour and infrastructure. His interests include open source software, citizen science, data visualization, geodatabases and web app development.

Roger Eritja (ES) is the manager of Entomology at Mosquito Alert. He has a 39-year background at the Mosquito Control Service of the Baix Llobregat, the Barcelona University, CREAF and presently at CEAB-CSIC. His competences cover most areas on mosquito research and control, focusing mainly on ecology of invasive species and their interactions with humans, and the development of sustainable control methodologies. He's authored more than 60 peer-reviewed articles, is a member of most scientific mosquito societies worldwide, and serves as expert for ECDC, WHO-E and government of Spain.

Živko Južnič-Zonta (ES/SI) is a data engineer with an interdisciplinary approach to problem-solving in a scientific and engineering context. He designs and develops data storage architecture, data pipelines, and ETL operations. He also has experience in data visualization, ensuring data quality and security, and designing reputation systems for crowd-sourcing multi-label human annotation tasks. He has worked as an environmental engineer in wastewater treatment plants.

Enric Pou (ES) is interested in both creating cutting-edge solutions based on machine learning and integrating them into services to be used at large-scale. He has done research in the audio engineering field, collaborating with the Music Technology Group (Pompeu Fabra University) on two exciting industrial projects. He has also experience developing and deploying platforms in the cloud. Currently, he is in charge of the new MosquitoAlert platform's architecture, design, and development. He is excited to integrate innovative solutions to extract knowledge from real-world problems.

Isis Sanpera Calbet (ES) is a postdoc and field sampling technician at the Universitat Pompeu Fabra (Barcelona), participating within the Human-

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Mosquito Interaction Project. Her work mainly consists of the sampling and identification of mosquitoes in the Barcelona area to analyse their spatio-temporal distribution; these data are used to model the risk of human exposure to mosquitoes that are vectors of diseases. Also working on the networks of interactions between the tiger mosquito and humans through their bites. She is a team member of the Mosquito Alert (MA) project from 2020 and part of the ReNED.

Simone Mariani (ES/IT) is a scientific technician in the Centre d'Estudis Avançats de Blanes (CSIC). He is the person in charge for the Girona area of both the field work and data collection for those projects about mosquitoes in which Mosquito Alert is involved.

Ariadna Peña (ES) graduated in environmental sciences from the University of Girona in 2018, and director of the Environmental Association "Xatrac" since 2021. I have been part of the educational team of Mosquito Alert since its inception, designing content, coordinating schools in different parts of the territory and running sessions with students. In addition, I also collaborate as a scientific disseminator of the project, taking the educational part to science fairs or similar.

Monika Falk (ES/PL) is an IT professional with a strong background in web development and artificial intelligence. She holds two master's degrees, one in Computer Science with a specialization in Multi-media Technologies and Artificial Intelligence Methods, and another in Environmental Engineering with a specialization in Heating, Ventilation, and Atmosphere Protection. Monika is particularly passionate about using her expertise in AI for social good and has experience working on projects focused on this mission.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Effective methods of targeting mosquitoes that transmit pathogens can save lives and protect the health of millions. Mosquito Alert brings citizen science and digital technologies to encourage cost-effective and sustainable vector management, fostering intersectoral communities, and adding operational tools that work locally while offering global solutions. This open innovation initiative has advanced the knowledge of mosquitoes as disease vectors by mapping population distributions, discovering species of concern in new regions, and constantly adjusting the fitness for use of our citizen science methodologies.

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Image 46. Ocean Routes: Exploring and valuing the maritime culture of Esposende – An ocean literacy and citizen science approach, Credit: Rio Neiva – Environmental NGO. CC BY-SA 4.0

Ocean Routes

Rio Neiva - Environmental NGO (PT), António Rodrigues Sampaio School Group (PT)

Exploring and valuing the maritime culture of Esposende – An oceanliteracy and citizen science approach

Ocean Routes was an ambitious and comprehensive project that mobilized a local school community together with local oceanic agents, towards an increased awareness and protection of Esposende Municipality maritime culture and ecosystem, in northern coastal Portugal, within a Natura 2000 site.

The *Ocean Routes* project was anchored in six 'routes' representative of relevant ocean literacy topics in this territory (civilisations and history; gastronomy; biodiversity; sports; literature and music; future and sustainability), allowing to establish reciprocal benefits with existing curricular contents. Central to setting-up these knowledge routes was a citizen science approach, from data collection to analysis, by implementing 89 field sessions, directly and regularly by 1327 students (6-15 years old), together with 163 teachers, feeding the activities of 12 disciplines and 6 citizen science platforms. It was also the first opportunity to bring together 11 local oceanic stakeholders as a way to unlock their knowledge.

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Image 47. Ocean Routes: Exploring and valuing the maritime culture of Esposende – An ocean literacy and citizen science approach, Credit: Rio Neiva – Environmental NGO. CC BY-SA 4.0

The *Ocean Routes* project was grounded in a partnership between Rio Neiva – Environmental NGO (lead), and António Rodrigues Sampaio School Group (consisting of 10 schools).

- Engaged disciplines: Geography, Natural Sciences, World Topics and Citizenship, Portuguese, English, Music, Mathematics, History, Ethics and Religion, Physical-Chemistry, Visual Arts, and Sports
- Contribution to citizen science platforms: Shark Attract, OMARE – Municipal Maritime Observatory, Project Rivers, MIRIM Project, Invasoras.pt, and TrashTraveller.
- Engaged stakeholders: Fishermen Association, Municipal Library, Environmental Education Centre, Interpretative Centre of S.Lourenço, DOCAPESCA Fish Markets, Esposende Vocational School, Nautical Station, Municipality of Esposende, Maritime Museum, Municipal Maritime Observatory, and Northern Litoral Natural Park.
- Additional outputs include two exhibitions (+1000 objects, such as illustrations, artistic installations, poems, etc); one final public event; and one scientific paper and presentation.

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Credits

Ocean Routes was promoted by Rio Neiva – Environmental NGO and António Rodrigues Sampaio School Group, with the support of EEA Grants Portugal, under the call *Support for Education Initiatives – Ocean Literacy*.

Biographies

Ocean Routes (PT) was promoted by a partnership between Rio Neiva – Environmental NGO (lead) and António Rodrigues Sampaio School Group (partner, total of 10 schools), with the following core multidisciplinary team members: Cristina Nava, MSc Biologist, specialised in marine affairs, as Project Coordinator and Manager; Rui Pedro Almeida, BA Management, as Project Operational Manager; Paula Cepa, BA in Education, Director of School Group, Pedagogical Coordinator; Augusta Almeida, BA in Education, Coordinator of School Libraries, Liaison with Teachers; Rui Monteiro, MSc in Chemical Engineering, Strategy and Research. It is also important to include and publicly acknowledge the 163 teachers (who without their time and commitment *Ocean Routes* would not have been possible), and as well the 23 local experts (from 11 oceanic stakeholders) who also embarked on the **cean Routes* journey and were key facilitators of several activities.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

This citizen science project is anchored on six main themes representing ocean literacy topics: civilisations and history; gastronomy; biodiversity; water ports; literature and music; future, and sustainability). Each theme has a specific citizen-science approach from data collection to analysis and involves almost a hundred field sessions. The jury highlighted the engagement of local school communities with relevant stakeholders to protect local maritime culture and ecosystem in Esposende, a northern coastal town in Portugal.

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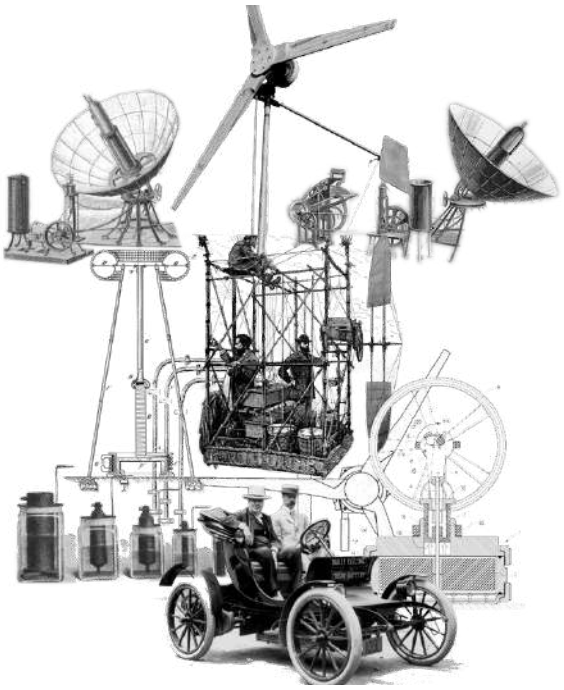

Image 48. Paleo-Energy - Credit: Atelier21 / PaleoEnergy CC BY-SA 4.0

Paleo-energy: How forgotten patents can shake the future

Cédric Carles (FR)

The *Paleo-Energy* citizen science project, focuses on exploring alternative energy sources inspired by Technical Heritage. Through multidisciplinary collaboration, the project seeks to combine traditional knowledge with modern technology to develop innovative and sustainable solutions for energy production and consumption.

Citizen participation and engagement play a crucial role in the project's approach, as it works closely with local communities to identify their needs and concerns related to energy. By raising awareness and empowering citizens through workshops, exhibitions, and public events, we hope to create a more democratic and inclusive approach to the energy transition. The project also aims to foster a sense of collective ownership over the development of new energy systems, encouraging citizens to become active stakeholders in shaping the future of sustainable energy. Through its efforts, we strive to inspire new ways of thinking about energy.

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Image 49. Paleo-Energy - Credit: Atelier21 / PaleoEnergy CC BY-SA 4.0

Credits

Paleo-Energy Team: Loïc Rogard, Thomas Ortiz, Eric Dussert, Lucile Nivelet-Etcheberry, Anaïs Chazel, Jean Dard, Simona Iliycheva.

Support received from Schneider Electrics Foundation (main sponsor), Ile-de-France Region, City of Montreuil, and DRAC Ile-de-France

Biographies

Cédric Carles (FR) is a Franco-Swiss artist and designer whose work centers around a global reflection on energy issues, specifically focused on new uses, creative and innovative goods and services, and the evolution of consumer mentalities. His approach is both experimental and academic, blending art, design, new technologies, social innovation, and sustainable development, while also being recreational, festive, and above all, a vector of social connection. Carles aims to sensitize and educate people on energy and material issues, open up new perspectives and reflections, and disseminate alternative practices, mobilizing all types of actors, including civil society, businesses, and public organizations. Ultimately, his goal is to change behaviors, have a social and ecological impact, change individual, collective, and professional practices, and accompany the mutation of society in its relationship with the environment. In addition to his official research, Carles works on developing a common scientific and technological culture that can be carried by and accessible to everyone.

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Image 50. Paleo-Energy - Credit: Atelier21 / PaleoEnergy CC BY-SA 4.0

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Our contemporary focus on innovation is challenged by this participatory research project, which asks: can we source sustainable energy with past inventions that never made it to the mainstream? Crowdsourcing technical relics to foster collective ownership of the solutions, the community started by artist and designer Cedric Carles searches for a shared future built consciously from past inspiration.

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Image 51. Phenoclim - Credit: SPozzi CC BY-SA 4.0

Phénoclim

Anne Delestrade (FR)

Phénoclim is a participatory science programme on phenology and climatology in mountain areas created in 2004. It is a project that enables research to progress (6 scientific articles published so far), mobilises a highly involved community of observers (2200 registered participants, numerous physical meetings), and informs decision-makers and managers of protected areas (creation of indicators of the effect of climate change on biodiversity). Since the COVID-19 crisis, we have noted a very strong attraction to the programme, with many participants getting involved from their own backyard. What if Phénoclim allowed everyone to reconnect with nature by observing the ordinary nature that surrounds us?

Image 52. Phenoclim - Plant and animal phenology, Credit: CREA Mont-Blanc CC BY-SA 4.0

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Credits

Phénoclim has received support from the French Ministry of Ecology, French Ministry of Education, Auvergne-Rhône-Alpes Region, Pyrenean Climate Change Observatory, ORANGE for (maintenance of the temperature stations as a sponsorship of skills) and Revolve by Devoteam (for IT development in the form of skills sponsorship).

Biographies

Anne Delestrade (FR) is an ecology researcher with an atypical background. As part of her thesis on the yellow-billed duck, she moved to the foot of Mont Blanc to better study this emblematic bird of the Alps. In 1996, Delestrade created an independent research center on the wider question of the ecology of the of mountain ecology. Within the CREA Mont-Blanc, Delestrade satisfies her curiosity about the functioning of mountain ecosystems and disseminate scientific knowledge, with the objective of opening the world of science and nature to the general public. Delestrade is also a ski instructor because the mountain is full of facets to explore. Founder and director of the Centre de Recherches sur les Ecosystèmes d'Altitude – CREA Mont-Blanc – a scientific NGO expert in alpine ecology, which has put participatory science at the heart of its approach by associating researchers, decision-makers and the general public to its observatory of mountain biodiversity and climate change.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Phénoclim is tackling a very relevant and urgent issue, that of climate change, in one of the habitats most exposed to its effects: the mountainous areas. It empowers local communities (those most affected by the negative effects of climate change) with tools, field kits and training opportunities to better understand the details of the phenomenon and inform decision-makers to identify possible local solutions. The creation of indicators of the effect of climate change on biodiversity is made with the same methodology across the whole range of the project (mostly Western Alps and Pyrenees), in a truly transborder collaboration effort. An outstanding example of community effort that actively provides first-hand data on a topic of paramount importance.

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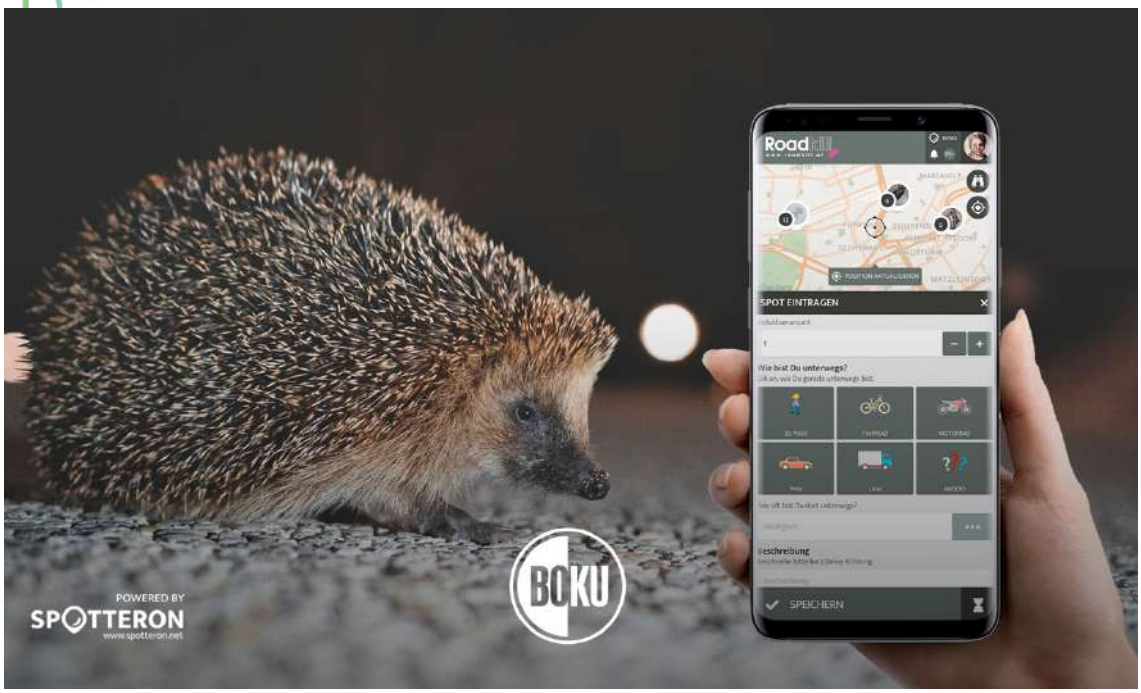

Image 53. Project Roadkill - Credit: David Kung; Unsplash Lizenz (https://tinyurl.com/y7zx6wxd); bearbeitet von Philipp Hummer (SPOTTERON)

Project Roadkill

Florian Heigl (AT), Daniel Dörler (AT)

Project Roadkill creates an overview of where animals are roadkilled in Austria and what reasons there might be for this. Roadkill is the term used to describe all animals killed in road traffic. In Austria, official statistics on road-killed animals are only available for huntable game. Data on all other animal species – including endangered species such as amphibians – are missing.

The aim of *Project Roadkill* is to reduce the number of roadkills as much as possible by identifying the factors leading to roadkills. The first step is to get an overview of the number, extent and distribution of roadkills in Austria. This overview is created with the help of citizen scientists who collect data via our app or the online form during their daily routine. Since 2021 citizen scientists are able to contribute to the whole research process, from formulating research questions, collecting, validating and analysing data to co-writing scientific manuscripts.

Credits

The most important acknowledgement goes to all citizen scientists of the Roadkill project. Without their participation, the project would not exist. We would also like to thank the University of Natural Resources and Life Sciences Vienna for financially supporting the project. We would like to thank the FWF for the project funding PUD-19B, which made it possible to involve citizen

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scientists in the entire research process. We would like to thank the company Spotteron for the many years of good cooperation. And last but not least, we would like to thank all Master students and scientists who contribute to the scientific publications from the project.

Biographies

Florian Heigl (AT) studied Agroecology at the University of Natural Resources and Life Sciences Vienna and finished his PhD in road ecology at the same university. Since 2013 he is involved in conducting citizen science projects in higher education and with the general public. Florian coordinates the citizen science project Roadkill and co-founded the Citizen Science Network Austria and its associated online platform Österreich forscht in 2014. In the CSNA he is head of three working groups including the working group on quality criteria for citizen science projects on Österreich forscht.

Daniel Dörler (AT) studied Zoology at the University of Vienna and did his PhD in Ecology at the University of Natural Resources and Life Sciences, Vienna. During his PhD-studies, Daniel Dörler coordinated a project with a citizen science-approach and co-founded the Citizen Science Network Austria (CSNA) and its associated online platform Österreich forscht. Since 2015, he is one of the coorganizers of the Austrian Citizen Science Conference and has been in the scientific committee of several international conferences (among others ECSA 2018, 2020, 2022). Currently, Daniel is involved in the citizen science project Roadkill and is chairing several working groups in the CSNA and ECSA, including the Citizen Science Networks working group, which aims to formulate criteria for national citizen science platforms .

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Roadkill is the term used to describe all animals killed in road traffic. In Austria, official statistics on this phenomenon are only available for game species, while data on all other animals – including endangered species such as amphibians – were missing. The aim of Project Roadkill is to get an overview of the number, extent and distribution of roadkills in Austria to reduce the entity of the problem as much as possible by identifying the factors leading to it. Citizen scientists collect data via a dedicated app or upload them through an online form, contributing to the whole research process, from formulating research questions, collecting, validating and analysing data to co-writing scientific manuscripts.

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Image 54. Projecte Rius - Conducting a river survey. Training day. Credit: Associació Hàbitats (ES). CC BY-SA 4.0

Projecte Rius

Associació Hàbitats (ES)

Longterm freshwater quality monitoring through citizen science in Catalonia, Spain.

Projecte Rius is an ecological quality monitoring project focused on freshwater ecosystems in Catalonia, Spain and led by a non-profit association. Its methodology is based in standard quality indexes broadly used to assess water quality in Europe, for example to implement the Water Framework Directive and its quality objectives. This specialised methodology has been adapted to be performed by citizen scientists using simpler tools and materials. Associació Hàbitats, the leading organization, provides methodology training, basic tools and permanent support to all participants. All the data collected are saved in the project's database and results are made public in the project's webpage using different formats and platforms. We contribute to research sharing our datasets with researchers and public administration as well as participating in research topics such as usability and precision of citizen science data and its potential role in water management.

At the beginning of its 25th edition, *Projecte Rius* has accumulated more than 5000 river surveys carried out in 670 different sites, some of which have had more than 10 inspections over time. We estimate that more than 50,000 people participated in the project since 1997 and currently we count 313 active teams within our volunteering network.

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Image 55. Projecte Rius Materials used during river surveys. Credit: Associació Hàbitats (ES). CC BY-SA 4.0

Biographies

Associació Hàbitats (ES) non-profit organization founded in 1997 to manage *Projecte Rius*, the same project we still maintain as the core objective of our organisation. Among our complementary activities, we develop river habitat restoration projects in coordination with local councils and volunteers as part of our land stewardship approach. We are also involved in environmental education projects related to freshwater ecosystems and biodiversity. Our main goal is to reconnect citizens and their environment to promote its conservation over time and transition to a more sustainable society.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Through this remarkable Catalonian initiative a variety of people joined forces. Within twenty years 40.000 participants volunteered to join this citizen science project and together face the environmental challenge of water pollution. Over all these years they collected samples of rivers in the region, mapped their water quality, analysed the impact on concerned ecosystems and how they evolve over time. This way Projecte Rius raises awareness, trains skills and creates an invaluable database for research on water, one of the most precious resources of our time. Through the commitment of Projecte Rius it ultimately contributes to protecting a crucial habitat of multiple species.

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Image 56. SensJus: Sensing for Justice - Credit: Andrea Marinelli (IT). CC BY-SA 4.0

SensJus: Sensing for Justice

Anna Berti Suman (IT), Sven Schade (DE), European Commission – Joint Research Centre - Ispra (IT)

SensJus demonstrates Citizen Sensing as a source of evidence in environmental justice litigation and as a tool for environmental mediation. *The project* explores how civic environmental monitoring can turn people into 'sentinels' for their environment. By performing civic monitoring, people re-gain a sense of responsibility and agency towards a nature, and can gather valuable evidence for law enforcement. We combine traditional legal research with ethnography and art-based research.

Image 57. SensJus: Sensing for Justice - Credit: Andrea Marinelli (IT). CC BY-SA 4.0

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Credits

SensJus is developed thanks to the support of the Marie Skłodowska-Curie grant n. 891513, under H2020-EU, and to the concluded research grant of the Dutch Research Council NWO, the Rubicon fellowship n. 66202117.

Biographies

Anna Berti Suman (IT) is a Marie Skłodowska-Curie fellow at the European Commission Joint Research Centre, Ispra, Italy. She is principal researcher of the project *Sensing for Justice* aimed at exploring the potential of civic monitoring as a source of evidence for environmental litigation and as a tool to foster environmental mediation. Previously, she led the "*Sensing the Risk*" PhD project at the Tilburg Institute for Law, Technology, and Society, The Netherlands, aimed at investigating how civic monitoring can influence the governance of environmental health risk. Anna is also qualified lawyer in environmental law under the Bar of Rome, following cases at Systasis – Study Centre for the Management of Environmental Conflicts, Milan. Previously, she worked for Greenpeace International, Amsterdam, and for the Association of Affected People by Chevron-Texaco, Ecuador.

Sven Schade (IT) is Scientific Project Officer at the European Commission Joint Research Centre, Ispra, Italy, where he works on public sector innovation and digital transformations. He acts as leading expert for the European arena on the use of Citizen Science for policy and other institutional purposes. Among other, Sven Schade co-chairs the Advisory Board Member of the European Citizen Science Association (ECSA). Sven has (co-)authored more than 100 publications in relevant fields and has also curated numerous training programmes, such as, the Vespucci Training School on Digital Transformations in Citizen Science and Social Innovation.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

SensJus explores how civic environmental monitoring can turn people into 'sentinels' for their environment. By performing civic monitoring, people re-gain a sense of responsibility and agency towards nature, and can gather valuable evidence for law enforcement. Traditional legal research is combined with ethnography and art-based research. It was praised by the jury for bringing together grassroots citizens to policy makers.

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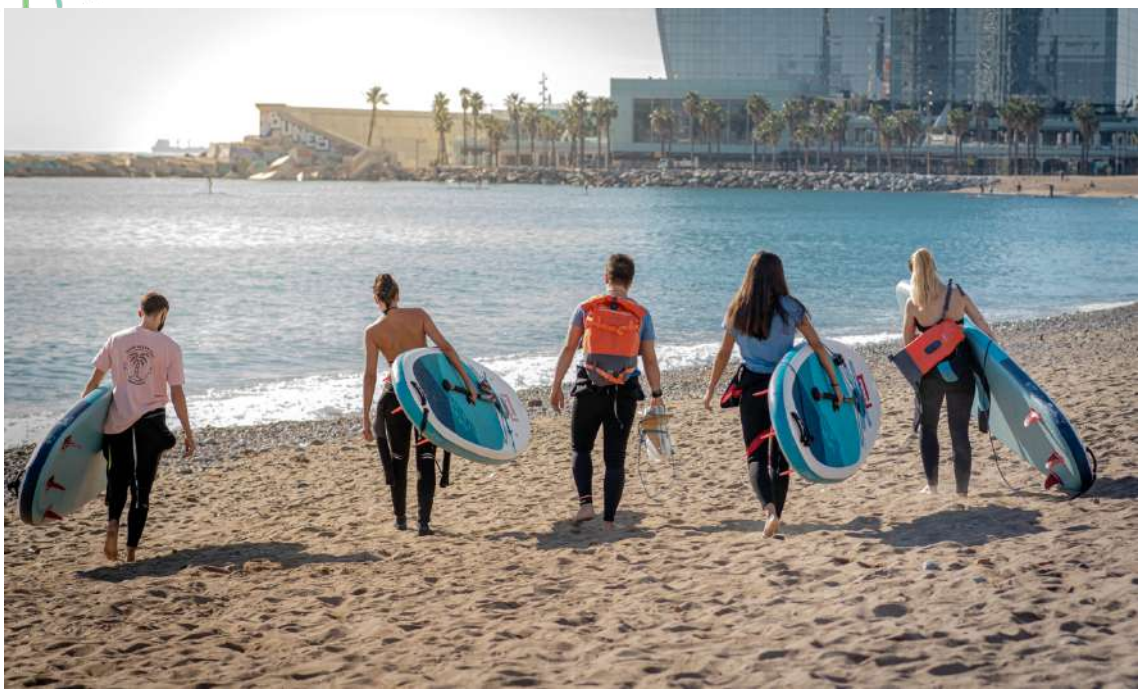

Image 58. Surfing for Science - Citizen scientists collecting samples of floating microplastics in the nearshore, Credit: Surfing for Science Project (ES). CC BY-SA 4.0

Surfing for Science

Anna Sanchez-Vidal (ES), William P. de Haan (ES), Oriol Uviedo (ES), Surfrider Foundation (Spanish delegation) (ES), Asensio Comunicació Visual S.L. (ES)

Vast amounts of microplastics have been found floating on the surface of subtropical oceanic gyres. However, the distribution of floating plastic in the ocean is still poorly constrained, and there is a lack of information from coastlines. The reason behind is the general use of trawls towed by research vessels to collect scientific samples. We have designed a net trawl to collect samples in the nearshore from SUPs, kayaks, and rowing boats.

Surfing for Science is coordinated by the University of Barcelona and the Spanish delegation of Surfrider Foundation, several social, environmental and sports associations in the Mediterranean coast and the Atlantic ocean have been acquiring scientific samples of microplastics floating in the sea surface since 2019. The samples are sent to the laboratory at University of Barcelona, where microplastic extraction, quantification (number of microplastics m^-2^ and weight of plastic m^-2^), and characterization (size, area, shape, colour, polymer type) is being performed. More than 30,000 plastics have been collected so far, most of them within the size range from 1 to 5 mm. The project has represented a paradigm shift in microplastic research, allowing to fill the gap in knowledge of the coastal area, and actively engaging and empowering citizens in the generation of new scientific data on microplastic pollution, raising awareness and having the potential of influencing consumer practices and policy.

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The far-reaching impact of the project is reflected in the numerous presentations in scientific conferences, publications in high-impact scientific journals, social media interactions, national and international news media's releases and public presentations and talks reaching out to a wide audience.

Image 59. Surfing for Science - Citizen scientists collecting samples of floating microplastics in the nearshore, Credit: Surfing for Science Project (ES). CC BY-SA 4.0

Credits

The project has been funded by the Fundación Española para la Ciencia y la Tecnología (FECYT) projects (refs. FCT-19-14747, FCT-21-16658, and FTC-22-17926) and the TRACE project (ref. TED2021-130515B-I00) funded by MCIN/AEI/10.13039/501100011033.

Biographies

Anna Sanchez-Vidal (ES) is Associate Professor at the Department of Earth and Ocean Sciences at the University of Barcelona. Most of her research in the last two decades has focused on the natural drivers (atmospheric, oceanographic, geochemical) that control deep marine ecosystems, and changes resulting from anthropogenic drivers. Sanchez-Vidal has a significant interest in issues of direct societal concern, such as plastic pollution, deep sea mining and the removal of carbon from the atmosphere.

William P. de Haan (ES) is graduated in Environmental Science and specialized in Oceanography and Marine Management. He is currently pursuing his PhD in the Marine Sciences program of the University of Barcelona. His focus is the quantification, distribution and characterization of floating microplastics in the Western Mediterranean Sea. In recent years, he has collaborated with various national and international projects focused on plastic pollution, including the Surfing for Science project.

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Oriol Uviedo (ES) is graduated in Marine Sciences from the University of Barcelona. He's now managing some projects on plastic pollution, including the Surfing for Science and TRACE projects, working as a science facilitator and data quality controller.

Surfrider Foundation is dedicated to the protection of the ocean with more than 30 years of experience. It promotes activities in the framework of lobbying, research and environmental education with volunteer programs, awareness-raising actions and training. The members at the Spanish delegation are Maria Ballesteros, volunteer manager in charge of citizen science projects; Idoia Fuertes, responsible for monitoring and data; and Xavier Curto, head of advocacy and press communication at the organisation.

Asensio Comunicació Visual (ES) is a creative agency and audiovisual production company. We specialise in brand strategy, concept development, content marketing and visual storytelling in transmedia projects. We are the communication partner for many private companies, public institutions and NGOs. We are based in Barcelona and available for work worldwide.

Image 60. Surfing for Science - Scanned image of microplastics collected in the nearshore of Barcelona city, Credit: Surfing for Science Project (ES). CC BY-SA 4.0

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

The consequences for the planet's ecosystems of microplastic pollution are a question of immense importance. Coastal environments potentially contain significant amounts of floating microplastics, with harmful implications for marine ecosystems. Surfing for Science works with ocean-goers, collecting microplastic samples from near-shore areas using a net that can be towed from paddle surfboards, kayaks, rowing boats and more. The analysis of these samples helps to collect data vital to understanding the impact of this anthropogenic material in an under-studied coastal zone.

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Image 61. Surfside Science - Credit: Suyin Ridderstaat (AW)

Surfside Science

Metabolic Foundation (AW)

Surfside Science aims to validate replicable methods to monitor coastal and marine ecosystems, focusing on Surfside Bay in Aruba as a case study. The goal is to identify which methods can contribute to improving access to data collection systems on small islands, with all methods and findings documented and shared openly through this website.

The prokect consists of a team of experts and students with expertise in science, technology, engineering, mathematics and arts (STEAM) developing and testing several methods for environmental monitoring, focusing on satellite imagery and low-cost electronic sensors. At its pilot site of Surfside, it is measuring the following parameters:

- Air Quality: Particulate matter, humidity and temperature
- Water Quality: pH, dissolved oxygen, temperature, and electrical conductivity
- Coastal Change: Vegetative cover, coastline, size of reef islands
- Seafloor Mapping: Seafloor cover, including shallow reef and aquatic vegetation

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Monitoring

Data collection systems developed to monitor the different environmental aspects will be validated to standard scientific methods. Through the set up of validated data systems, Surfside Science wants to contribute to the conservation of marine ecosystems and monitoring of coastal impacts, including climate change. Our aim is to finalize this project with 5 sensors installed at surfside bay. Our methods involve a combination of sensors, satellite imagery, analysis of underwater pictures through citizen-science and the use of Artificial Intelligence. An online database will be developed that can automatically and continuously collect, store, share, and analyze the data. All data will be open source and accessible for public use.

Replicable Systems

For all our validated data collecting systems we will create clear and simple technical instructions that allows others to replicate these systems. These technical instructions will be hosted on frequented citizen science and maker platforms (for example: GitHub, Instructables). We hope this will empower SIDS with the tools necessary to also start collecting their own data.

As such, the objective of this project is to contribute to the increased resilience of Aruba's marine and coastal ecosystem against impacts such as climate change. After this pilot year, funded by RESEMBID, we wish to explore long term funding models to support continued, and expanded monitoring of Aruba's Marine Ecosystem applying the tools developed in this pilot.

RESEMBID

Metabolic Foundation received funds from the Resilience, Sustainable Energy and Marine Biodiversity Programme RESEMBID. RESEMBID, funded by the European Union and implemented by Expertise France – the development cooperation agency of the Government of France, supports sustainable human development efforts in 12 Caribbean Overseas Countries and Territories (OCTs) – Aruba, Anguilla, Bonaire, British Virgin Islands, the Cayman Islands, Curaçao, Montserrat, Saba, Sint Eustatius, Saint Barthelemy, Sint Maarten and Turks and Caicos. Surfside science will contribute to SDG 11, 13, 14 and 15

Credits

RESEMBID (2022-2023) Expertise France (2022-2023)

Surfside Science received funds from the Resilience, Sustainable Energy and Marine Biodiversity Programme RESEMBID. RESEMBID, funded by the European Union and implemented by Expertise France – the development

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cooperation agency of the Government of France, supports sustainable human development efforts in 12 Caribbean Overseas Countries and Territories (OCTs) – Aruba, Anguilla, Bonaire, British Virgin Islands, the Cayman Islands, Curaçao, Montserrat, Saba, Sint Eustatius, Saint Barthelemy, Sint Maarten and Turks and Caicos.

UNESCO (2018-2019) for Environmental Monitoring for SIDS, UNESCO (2021-2022) for Replicable Ocean Science for SIDS and UNESCO (2023) for Future Ocean Conversations.

Biographies

Surfside Science (AW) started in August of 2022 created by Metabolic foundation in Aruba with the support of RESEMBID, funded by the European Union and implemented by Expertise France. As a continuation and broadening of developments before this project with funding by UNESCO. We were able to delph further and develop fully, test and validate our replicable and affordable environmental monitoring systems which will provide open-sourced live environmental indicators DATA. The project holds a team of local professionals and students who test and develop methods to monitor the environment of our coast for a year in Surfside Bay. The instruments will measure air and sea water quality, coastal dynamics, and vegetation under water. RESEMBID is a program that supports sustainable human development of European countries and territories in the Caribbean (OCTs), of which Aruba is a part of. RESEMBID is financed by the European Union and its implementation partner is Expertise France, the latter being a collaboration agency for the development of the French Government.

Surfside Science aims to contribute to the resilience of Aruba's marine and coastal ecosystem against the impacts of climate change. Aruba, like many other small developing islands, lacks reference data and continuous measurements of various environmental indicators. At the end of the project, Surfside Science hopes to have 10 sensors installed in Surfside Bay. The data collected will be available on the website science.brenchies.com for public use, and will benefit especially local people who are active in academia, foundations, students, and professionals.

The young professionals and local students working together on this project are:

- Christie Mettes, with a master's degree in environmental science, is the project director.
- Tony Sevold, who studied environmental science, mathematics, and physics and works in microbiology, leads the scientific investigation.

Funded by the European Union

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- Tatiana Becker, who studied marine environmental engineering and ecology, will compare the methods developed during the project with standardized and scientific methods.
- Jeremy Granadillo, who studied Media and Technology in Rotterdam, is working on the digital interface that will receive and analyze data.
- Suyin Ridderstaat, who studied communication, marketing, and illustration, is the Communications and visibility coordinator.
- Manuel Rojas, an electrical engineering student at the Eindhoven University of Technology, is working on water quality.
- Sean Brokke, an ICT student at Fontys, is working on air quality.
- Amaryllis Lee, an Artificial Intelligence student at Hogeschool Utrecht worked on our AI.
- Gyonne Goedhoop a structural contributor who is our funding consultant for future funding.
- ScubbleBubbles, a group of young divers, will help verify satellite images.

The project is collaborating with the University of Aruba from which we received interns who have worked on air and water sensors, GIS and validation (Alexandra Ulacio, Raydeline Wever, Max van Schie, Stephen Richards, Keiran Kelly, Jean-Marc Rosenstand). We also have received support of the local community by volunteers participating in seafloor mapping. And establishments on the bay hosting our sensors such as Neptali Park and Surfside Marina.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Surfside Science is a project that combines citizen science and sensors to monitor a specific area of the coast of the Caribbean island of Aruba. Like many other coastal areas, Aruba faces critical threats from climate change and environmental degradation, with sea level rise, coastal erosion, extreme weather, habitat destruction, and pollution. The jury praised the low-cost and maker approach for environmental monitoring.

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Image 62. Whale Track - Volunteer surveying from land, Credit: HWDT.org

Whale Track

Alison Lomax (GB), Hebridean Whale & Dolphin Trust (GB), Lauren Hartny-Mills (GB), Hebridean Whale & Dolphin Trust (GB)

Community marine mammal monitoring for nature restoration

Whale Track is a long-term, community-based marine mammal monitoring programme, supported by a smartphone application. With over 4,000 registered users and an increasing number of sightings reported each year, this community of citizen scientists is helping to monitor Scottish whales, dolphins, and porpoises on a scale like never before. It is a staggeringly impressive public effort.

Whale Track provides a quick and easy way for the public to record and submit their sightings of whales, dolphins, and porpoises in Scottish waters. It is the first UK based biological recording app to use GPS tracking technology at sea. Designed to work even in the most remote areas, without network coverage or internet, it allows anyone to contribute to our research, from fishermen to tourists.

Working together, volunteer citizen scientists are collecting the knowledge and evidence needed to protect Scottish whales and dolphins, restore our marine environment, and tackle the impacts of climate change.

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Credits

The *Whale Track* digital platform was first developed in 2017 thanks to funding from the National Lottery through the Your Heritage Fund. In 2022, we invested in our growing Whale Track sightings community, rebuilding and expanding the data collection functionality of the digital platform with funding from the NatureScot Nature Restoration Fund. The project has received funding from the Q Charitable Trust, Coop Local Community Fund, Postcode Local Trust, and Baillie Gifford.

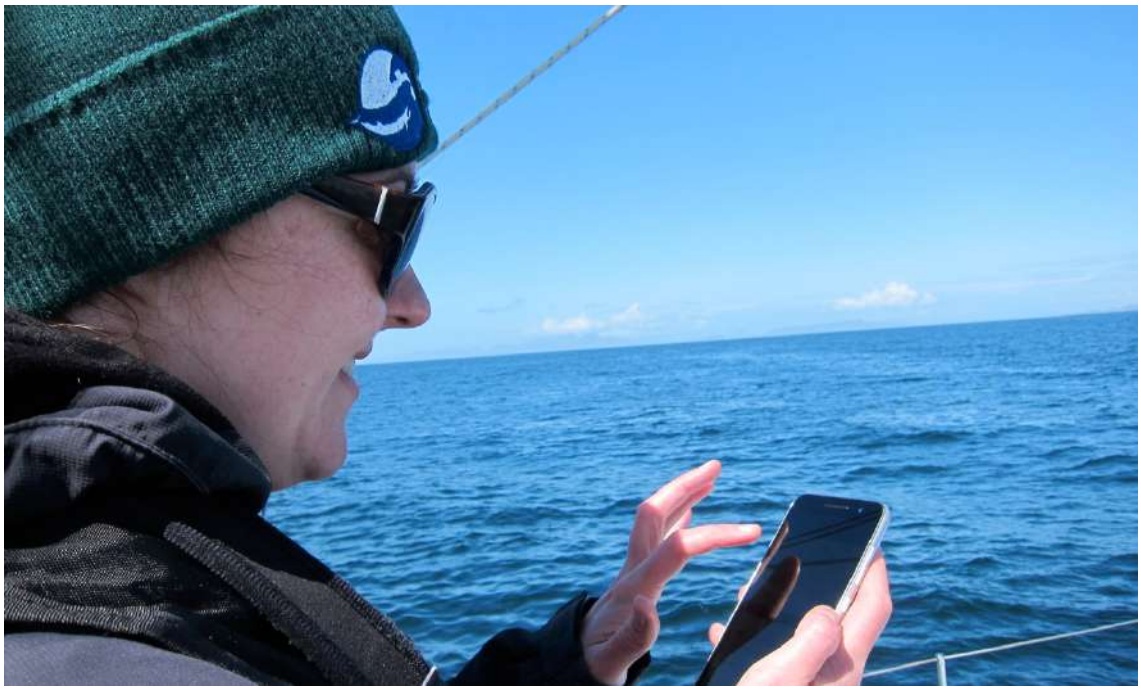

Image 63. Whale Track - Volunteers surveying from ferry. Credit: HWDT.org

Biographies

Alison Lomax (GB) is Director of the Mull based charity, Hebridean Whale and Dolphin Trust (HWDT) and has been working in marine mammal conservation in the UK for the past 10 years. At HWDT Alison oversees the charity's many conservation, education and community-based programmes; most recently spearheading the creation of the spectacular new Hebridean Whale Trail on the west coast of Scotland. Her main interest is in community engagement and citizen science projects and is passionate about connecting people and environment together through stories and wildlife experiences. At home in the sea, Alison's also a keen cold water swimmer.

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Hebridean Whale and Dolphin Trust (GB), established in 1994, is the trusted voice and leading source of information for the conservation of Hebridean whales, dolphins and porpoises (cetaceans). Based on the Isle of Mull, in the heart of the Hebrides, Hebridean Whale and Dolphin Trustis a registered charity that has pioneered practical, locally based education and scientifically rigorous long-term citizen science monitoring programmes on cetaceans in the Hebrides. We believe evidence is the foundation of effective conservation. Our research has critically advanced the understanding of species that visit seasonally or are resident in the Hebrides. Data are provided to the Scottish Government to inform protection measures for minke whales, Risso's dolphins, harbour porpoises, and basking sharks across Hebridean seas. We are dedicated to enhancing the knowledge and understanding of the Hebridean marine environment through education, research and working within communities as a basis for the lasting conservation of local species and habitats.

Image 64. Whale Track - Volunteers surveying from land, Credit: HWDT.org

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Whale Track is the first UK based biological recording app to use GPS tracking technology at sea to be an accessible way to support citizens record and submit sightings of whales, dolphins and porpoises from across the west coast of Scotland. With over 30,000 sightings logged so far alongside an education programme, the Hebridean Whale & Dolphin Trust work directly with communities to encourage stewardship of seas from fishermen to tourists. Of particular note was the thoughtfulness of the app working in rural contexts – without network or wifi – in this programme.

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Image 65. When gig workers regain control – La cooperative Maze website

When gig workers regain control

Brahim Ben Ali - Coopérative Maze (FR), David Décamps / Deydai - PersonalData.iO (FR), Jessica Pidoux - CEE Sciences Po Paris and PersonalData.iO (FR)

Data governance model for a new French mobility service by gig workers

Scientific knowledge is produced about the working conditions of gig workers in Paris through the lenses of their personal data that is recovered with the aim of building a new data governance model for innovation. Based on a participatory methodology, drivers organised at the cooperative Maze recovered their personal data from Uber by making use of their data access rights and are seeking now to first analyse it with open access tools for reverse engineering Uber's algorithmic management. Second, to create data commons for innovation.

Together with Jessica Pidoux, researcher at Sciences Po Paris, and David Décamps, illustrator at PersonalData.iO, citizen science research is undertaken to build a new mobility service for Paris thanks to the geolocation data recovered from Uber and collective experiences in the transportation field by means of a bottom-up governance: drivers decide together how to manage and repurpose data for talking control of algorithms and improving their profession.

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Credits

The project would like to acknowledge worldwide platform drivers working for a collective change, and Maze's associates, PersonalData.iO's team and Hestia.ai's team, along with founder Paul-Olivier Dehaye, for technological solutions open and free at digipower.academy.

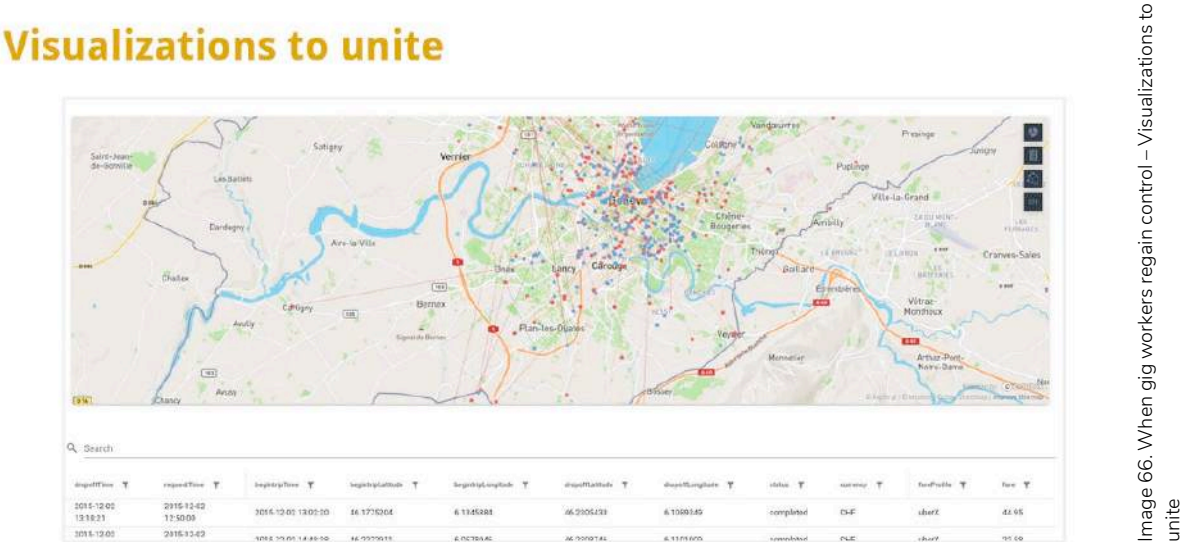

Image 66. When gig workers regain control – Visualizations to unite

Biographies

PersonalData.IO (FR), founded by Paul-Olivier Dehaye, started to collaborate with Brahim Ben Ali in 2019. Brahim is a professional driver, founder and president of the cooperative Maze. In charge of organising the drivers as a community and their collective actions in Paris, France, and EU around data, he is also involved in policy making in his locality and in the European Commission consultations (for the gig workers' directive and the Uber files in France).

Brahim Ben Ali (FR) is the National Representative of the VTC (National Union INV), Founder and General President of the maze cooperative, independent driver and consultant at European level on the work of platforms, President of the Human Dignity Association and member of the global alliance IAATW. Since 2021, Brahim proposes a new mobility service with the city of Saint Denis. He also started to collaborate with Jessica Pidoux (Director of PersonalData.IO) and David Décamps (artist and digital mediator at PersonalData.IO). They support Maze in research and data governance. From the encounter of these interdisciplinary experts (driver, mathematician, sociologist, artist) was born this project: A societal project, eminently crucial for the future of driving profession and gig work, wishing to lay the foundations for a new era in the use of data for the common good.

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David Décamps (FR) began photography in 2013 while living in Palisades, a village located a few miles north of New York City (USA). Self-taught, and adept at street photography, he stands out for his deeply human and resolutely optimistic vision of art. With kindness and finesse, his works reveal the forgotten details of life, thus restoring a sense of wonder that is sometimes lost in a daily life that leaves little room for attention. Also illustrator, Deydai is the nickname of the boy who lives in a corner of his brain. Deydai likes to illustrate his words. Often in black and white, sometimes tinted with colors, his illustrations mix the popular expression “a drawing is better than a long speech”.

Jessica Pidoux (FR) is a digital sociologist at Sciences Po Paris, Center of European Studies. She conducts research in matching algorithmic systems, personal data protection and citizen science for improving development processes in app-innovation. She has revealed algorithmic discrimination patterns in the dating app Tinder. She is currently project manager of COESO’s module Cooperation Analytics for citizen social science projects (EU Horizon 2020), which gives her knowledge in digital policies across Europe. She is also Director of PersonalData.IO where she develops protocols of legal, ethical and technical support to advocate for better digital rights with communities of interest, for achieving their own goals of social transformation in the data economy. She contributed with her research to the film production of Ariane Loze’s “cold loves” about recommendation systems for raising awareness about the impact of the data economy.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

Citizens have the right to know about personal data that is collected by the company they work for (under EU GDPR rights). Yet most workers find it very difficult to receive meaningful information from the data. In this project, Uber drivers tracked their own driving data, analysed it and this way eventually made sense of the Uber algorithm. They concluded that the algorithm calculates their wages inaccurately. Through the acquired evidence citizens could fight legally for higher wages. This citizen science project on data rights emphasises that workers could make use of transparent and accessible data to gain power.

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Image 67. YouCount

YouCount

Oslo Metropolitan University (NO), University of Vienna (AT), SPOTTERON (AT), Aalborg University (DK), ESSRG (HU), Univertsita Degli Studi Di Napoli Federico II (IT), Kaunas University of Technology (LT), Orkestra-Basque Institute of Competitiveness/Deusto Foundation and Deusto University (ES), Sodertorn University (SE), VA – Public & Science (SE), University of Central Lancashire (GB)

Empowering youth and cocreating social innovations and policy-making through youth-focused citizen social science

In Europe, substantial numbers of young people are at risk of social exclusion so there is a pressing need to develop knowledge and innovations that create more inclusive and youth-friendly societies. Successful strategies for social inclusion require better knowledge of what young people see as crucial issues for increasing their social inclusion, more knowledge about their experiences of opportunities for social inclusion in their daily lives and how they can be involved as lived experts and change-makers in innovation and policy-making. *YouCount* contributes to these needs by developing actionable knowledge of the positive drivers for social inclusion of youths with disadvantages and by creating better means and policy-making for social inclusion through citizen social science, where youths can participate as

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citizen scientists. It aims to develop Youth Citizen Social Science for social inclusion research, followed by systematic evaluation of its potential.

Credits

YouCount is funded by the European Commission under Horizon 2020, GA No.101005931

Biographies

YouCount (INT) is a consortium coordinated by Dr. Reidun Norvoll from Oslo Metropolitan University (Norway) and made up of other 10 European partners: (i) University of Vienna (Austria); (ii) SPOTTERON (Austria); (iii) Aalborg University (Denmark); (iv) ESSRG (Hungary); (v) Univertsita Degli Studi Di Napoli Federico II (Italy); (vi) Kaunas University of Technology (Lithuania); (vii) Orkestra-Basque Institute of Competitiveness/Deusto Foundation and Deusto University (Spain); (viii) Soderton Hogskola (Sweden); (ix) V&A (Sweden) and, (x) University of Central Lancashire (United Kingdom). Several partners have been involved in the initiative from the beginning, which took off in 2018 with a workshop in San Sebastian, Spain to put together some initial ideas. All partners are involved in research and hands on citizen science activities, while SPOTTERON provides the technological knowledge needed to develop the app through which young citizen scientist are gathering data about their daily experiences of inclusion and exclusion. Youth citizen scientists have been involved in different stages of the research process from their recruitment onwards.

Jury Statement

Statement by the jury of the European Union Prize for Citizen Science 2023: Kat Austen (GB/DE/KR), Andrea Szorzi (IT), Pedro Russo (PT/NL), Stefanie Wuschitz (AT), Lewis Hou (GB)

YouCount brings together young people and relevant stakeholders to co-create new knowledge and innovations that address one of the complex societal challenges being faced by Europe: How to increase social inclusion for young people. This programme supports 9 projects where young citizens are supported as co-researchers in all stages of the research – from the planning, design of website, data analysis to dissemination activities. The jury particularly appreciated the focus on young people who are often excluded from these types of processes to democratise social sciences and make an impact for those involved.

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9. List of Illustrations

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