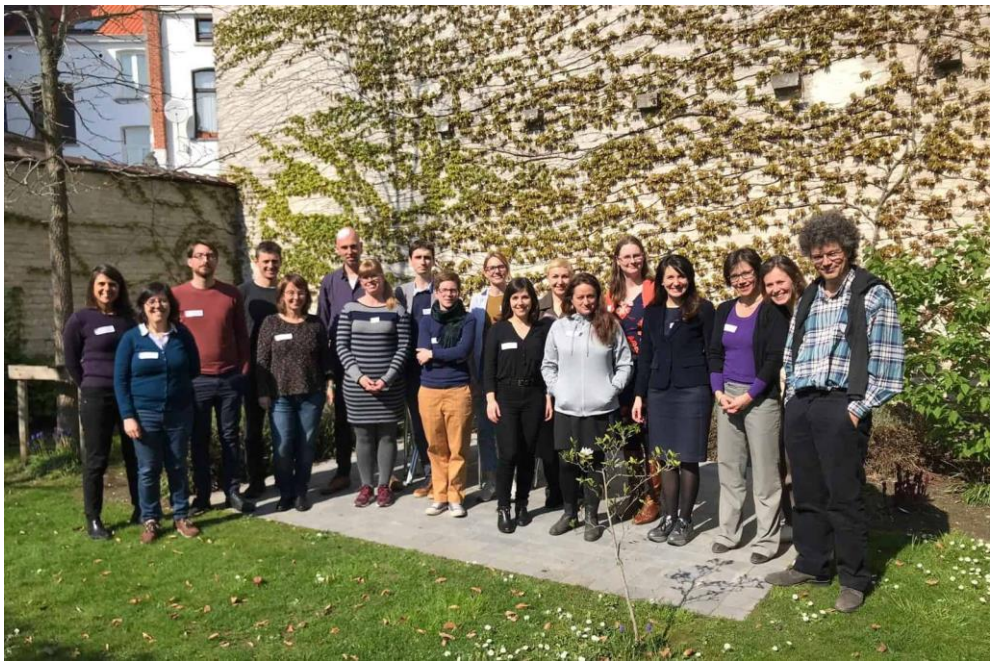
Joint Workshop WG4 and EU-Citizen.Science:

Co-creating the European citizen science platform of the future



10-11 April 2019

Brussels, Belgium

Workshop aims

The aim of the workshop was to contribute to the co-creation of the EU-Citizen.Science online platform, which will serve as a mutual learning space where citizen science practitioners and participants can exchange experiences and successful strategies. Participants (see Annex I) were invited to share their expectations for the platform, and to contribute their expertise by identifying potential features and functionalities.

The workshop also aimed to identify potential collaborations between the ongoing COST Action CA15212 and the EU-Citizen.Science platform, as well as exploring collaborations with current citizen science projects, networks and initiatives.

Session 1: Introduction to the platform

Following an exercise to allow participants to get to know each other (see Box 1), the first session explained the EU-Citizen.Science platform to ensure that all participants had a good understanding of the platform and its aims. The main points are summarized here.

EU-Citizen.Science is a three-year EU-funded project that will create a sustainable platform and mutual learning space for citizen science in Europe. It will also be a knowledge-sharing portal, a training network and a support community for citizen science across Europe.

To achieve this, it will collate and provide tools, best practice examples, recommendations and training materials on citizen science, all of which will comply with high-quality criteria as identified by the project consortium. These materials will be made available to different stakeholders, ranging from interested citizens to scientific institutions, as well as politicians and public media, in order to mainstream citizen science in Europe. By following a transparent, open and inclusive approach, EU-Citizen.Science will also promote interdisciplinary, cross-border and cross-sector collaborations.

The EU-Citizen.Science project involves 14 partners and 9 third parties, representing 14 European Member States and a variety of stakeholders ranging from universities,

NGOs, local authorities, CSOs and natural history museums, along with several other project supporters.

Box 1. Offline social media

Participants were invited to draw themselves on a piece of paper and place it on a piece of flipchart paper. Next, they talked for two minutes to another participant, with the task of finding something in common. They then drew a line connecting the two pictures, noting what they had in common. This process was repeated five times, so that participants had the opportunity to interact with several other people. This created a network of shared interests and experience, similar to social media networks - but offline.

Session 2: The challenges of mainstreaming citizen science

The first participatory session explored the challenges of mainstreaming citizen science. To begin, the organizers proposed possible definitions of mainstreaming:

- Raise awareness among populations

- Make it part of all / more scientific activities
- Increase participation among the public
- Ensure scientists plan for citizens' involvement as a central part of research

The participants discussed and debated these; there was broad agreement that it can and does mean all of these things. Following this, the participants were asked: what is the biggest challenge you face when mainstreaming citizen science? They wrote one sentence on a card in response and then ranked these through a game called '35'. During five rounds of scoring, participants paired up to assign seven points across the cards, sharing them according to the issue that was seen as most relevant. These scores were tallied to give each challenge a mark out of 35; these are shown in Table 1.

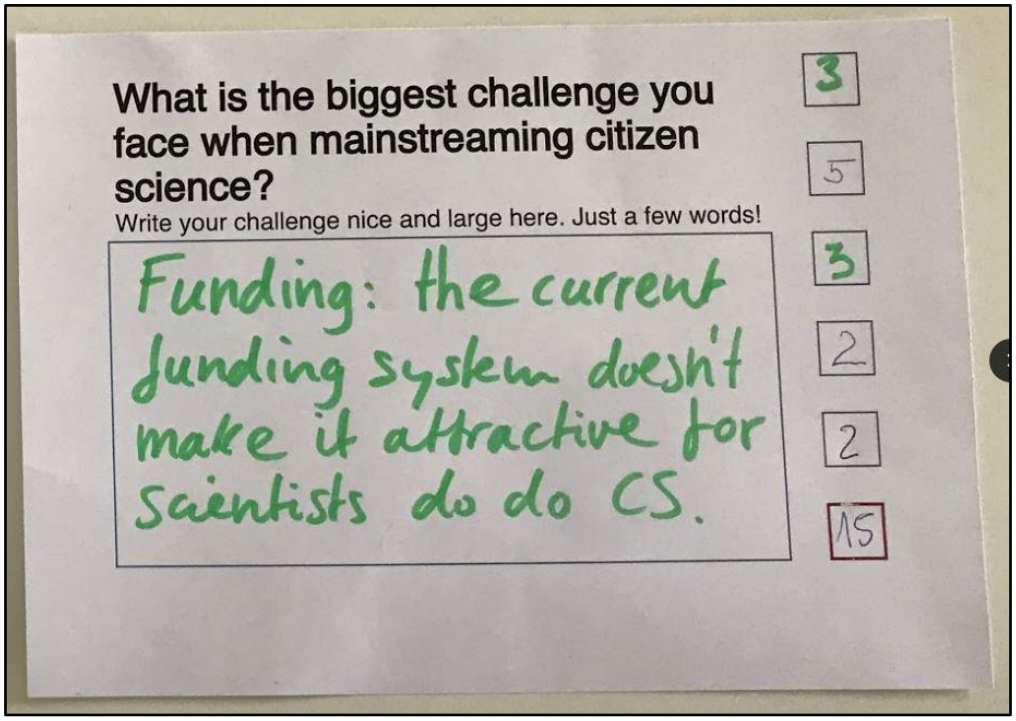


Table 1. Ranking of challenges to mainstreaming citizen science

Challenge	Score
Ignorance on policy level that leads to low awareness of the issue among people	22
Find places/opportunities to explain citizen science to "people not used to science" (minorities)	22

A lot of people are already doing citizen science, but they don't call it 'citizen science', so it is hard to find them and connect with them	21
The biggest challenge is to find a (structured) way to include different citizen science initiatives so that many practitioners & newcomers in the field realize that they are to some extent part of the same group. The need to define citizen science can, therefore, come up.	21
Effort ≠ Outcome: comparing effort to outcome - one of the biggest challenges is to make the outcome more attractive; why should scientists make the effort to join citizens? (Researchers' perspective)	20
Limited number of people (intermediaries / influencers) that can translate the need for citizen science to the general public	19
Increasing diversity of participants, reaching under-represented communities	19
Convince people that the task is useful and meaningful	19
(Local) governments, in general, don't know / understand what citizen science is and are not aware that citizens can contribute to tackling societal challenges	18
Raising awareness of the fact that citizen science can be a powerful tool to improve quality of life/ communities/ etc. → concrete impacts, not just one more fun activity	18
To not disappoint participants on citizen science outputs and outcomes	17
Lack of funds	17
Convince citizens about the importance of science	16
Funding: the current funding system doesn't make it attractive for scientists to do citizen science	15
Time: people's lives are busy, there are already too many competing interests / activities / distractions	15
Engage all partners involved, all the way	13

Time-consuming (resource intensive!) e.g. local governments	13
Making people understand citizen science as different forms, structures and outcomes	10

Session 3: Workshop - stakeholders, key networks and platform-community members

In the second activity, participants were invited to think about possible users of the EU-Citizen.Science platform: their profile and their motivations for engaging with the platform. Each group of four created a profile for an imaginary platform user, defining who she/he is and listing motivations and barriers to using the future EU-Citizen.Science platform. Table 2 summarizes the profiles created.

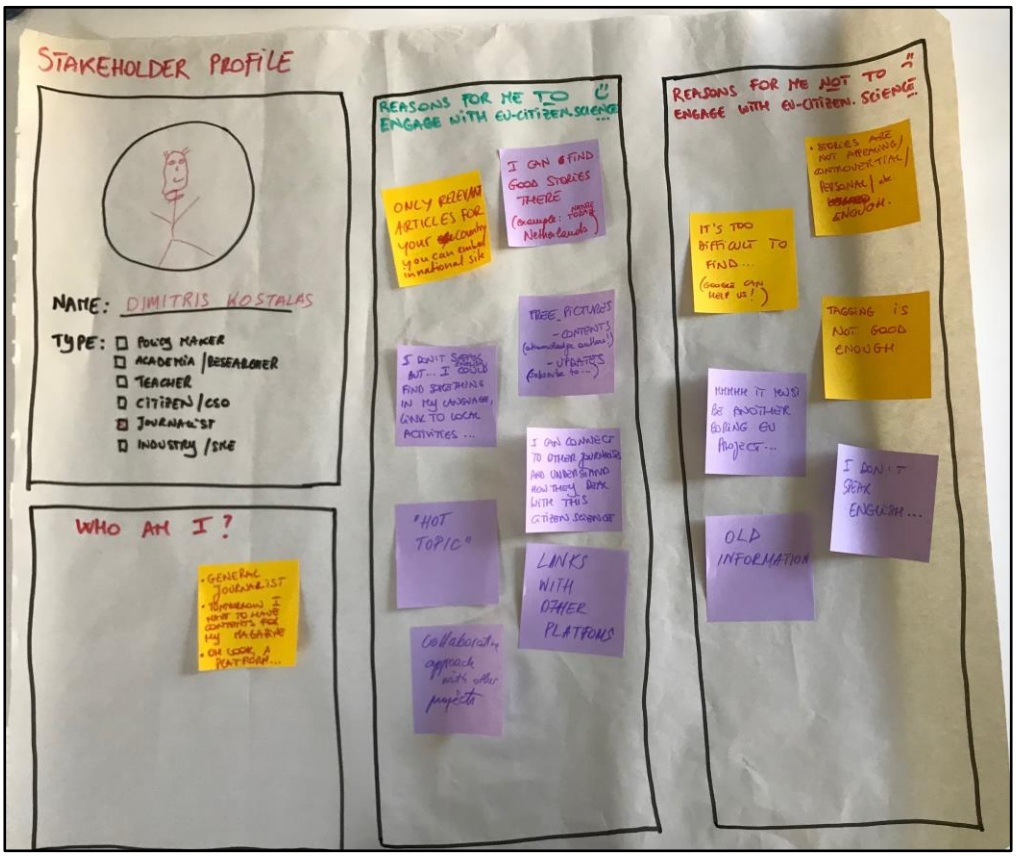
Table 2. User profiles for EU-Citizen.Science

Who am I?	Reasons for me to engage with EU-Citizen.Science	Reasons for me not to engage with EU-Citizen.Science
Dimitris Kostalas, a journalist "Tomorrow I need to have contents for my magazine. Oh look, a platform ..."	Relevant articles for my country that I can embed into a national site I can find good stories there (example: Nature Today, Netherlands) I don't speak English but I can find something in my language, link to local activities Free pictures, contents (acknowledge authors!), updates (subscribe to...) I can connect to other	Stories are not appealing / controversial / personal / enough It's too difficult to find (Google can help us!) Tagging is not good enough It will be another boring EU project I don't speak English 'Old' information

	journalists and understand how they deal with this citizen science 'Hot topics' Links to other platforms Collaborative approach with other projects	
Kristina, a biology teacher to 12-13 years old in Belgium "I found a way to make my pupils more active in my class by installing nest boxes in the school's playground to observe the nesting process through a camera. I managed to engage other teachers in this project. The kids are very keen on participating in this and they are actively engaged in it."	To get tools, guidelines and materials (TGMs) and develop / innovate my project To connect with other teachers and their citizen science initiatives Make the biology class more interesting for both teachers and pupils To promote my project and its results Add value to my own professional career Increase the school's visibility	Too much additional effort and time used for this Doesn't know / ignores the existence of the EU-Citizen.Science platform Not allowed by the school's director → permission issue Lack of support from the other teachers → afraid of involvement
A **PhD student** looking for	Not publishable Data quality (improve)	Language Too focused on specific fields

arguments to convince her / his boss to do citizen science	Examples/success stories Networking Personal stories Photos, not only text Show ways how to engage public (H2020 calls)	of science Time engagement too big How to find the platform? Complex information / structure
A person working in the **waste management industry**: • burning some garbage • recycling some • complying to a lot of EU regulations and standards Interested in citizen science because: • We can focus on the CSB rules (public support, etc.) • Open innovation (we love it!) • To increase our transparency in	To make similar projects (e.g. air quality sensors) To look for inspiring examples of similar projects To test new devices/solutions To look for training materials on citizen science To ask for help (Help. Help. Help. SOS!) Tips for finding funds Looking for partners (eg. research partners / building a consortium)	Costly Too complicated Not in my language Nobody will come anyway I don't trust you Low quality of inputs from the citizens IPR issues I can't find you online You are not responding to my mail in three days

front of the public • Marketing • Air quality for OVB neighbours • Because OVB CEO wants it!		



Session 4: World café - community needs and expectations assessment

During the first session on Day 2 of the workshop, participants were asked to assess the state of citizen science in their own country or region, on a scale of 0 to 10. To unpack

this further, they were asked to explain specificities and think about the most important training needs to address. Table 3 lists the results of this exercise.

Table 3. Assessing the state of citizen science in participants' own countries

Country	Score	Specificities	Training needs

Albania	3	• Individual initiatives
		• Spontaneous/from researchers
		• Sporadic topics:
		  ○ Waste
		  ○ Air Quality
		• Media talk about it
			• Creating an event specifically for Balkan countries

Lithuania	3-	• Not much in the media • Only international projects • Not one centre or rep. institution • No national strategy • Some scholars involved In 2 / 3 years … • Invisible citizen science projects	• Data quality & protocols (share what is already there) • Empowerment, inclusiveness and equity
Portugal	5	In one year… • Moving up! • "Niches" • Scarce and sparse • Policymakers have been engaged (in the past) • Participatory budget • A website collecting citizen science projects • National meetings (2017/2019)	• Mentoring programme (better than training) better than theoretical examples (continuous support) • Institutional incentives to use citizen science, how

		• Two big projects (biodiversity) • Active labs • Not much in the news • Teachers not much aware • Strategy for citizenship	to do advocacy, not only to policymakers but also school boards, etc … • Competition between countries or joint project
Czech Republic	5	• What does citizen science mean? • Crowdsourcing mapping • NGOs • Topics: Environment (water), nature • Popular in elementary schools • Policymakers absent	• Good / well-prepared examples but adapted to: ○ How to translate it to your local community? ○ How to […] to offer local projects
Greece	3-	• Air quality, birdwatching, wildlife, marine biology • 'Invisible' citizen science (biodiversity) • Meteorology • Astronomy • No government funding • Researchers don't know about it • More popular since 2015	
Poland	4	• Topics: Environmental, observations, Fab Labs • Only in big cities • No belonging to community/movement • 'Hobby' • A few organizations for promoting it	• No training; we need money

		• 'Show us the money!' • What is the advantage of it? • Barriers institutional / mental • Need for systemic change	
France	8	• National recognition of citizen science • Ministry of Research / Education • To agronomy; big study in 2016 • National chapter for citizen science (Part. Science & Research) • Every research institute has it in their agenda • Infrastructure for citizen science is developing • Medical / cultural / environmental research not connected • Mix (lots of things are citizen science) • Five years of research	• Reuse as much as possible of what is already there and adapt to citizen science • How to change ways of doing things. • Relate to the stakeholders ○ I used to do that, but if I do that … change research method • 'Everyone is doing it'
UK	8	• Five years old • Supported by big institutions • In public discourse: Public engagement (i.e. Science Festival involved) • Zooniverse • Strong push to open science • No clear rewarding system • Almost any researcher / cultural institutions would have done citizen science	• Product: How to communicate what you want to do • Service design process • How to use your (limited) resources efficiently (internal management, etc.) • Template for processes (especially for public

		• No national programmes	institutions)
Spain	9	• Recognized discipline • National platform • Five national meetings • National Strategy for citizen science • Specific funding for citizen science (not mixed with public engagement) • Lots of initiatives (both bottom-up and institutional) • Lots of things in it (not citizen science) • Twitter chats with experts	
Barcelona	10	• Seven years of citizen science: office of the city council (started as a group of five projects applying for funding to bring citizen science to schools and together) • Festival connecting municipalities, etc. → 15 projects • Big diversity of projects (biodiversity and social) • Co-creation with citizens in some projects • Connect with policymakers (city using the data) i.e. BioBlitzes • Criteria for assessing / letting projects in • *Barrios* adapted projects to co-create • School, teacher trainings (use	• Good examples of good local projects - help us scale-up (to policymakers, etc) • If you don't have one, pick up one from another region/country • How to collaborate rather than compete (for funding) • Show how many people and who you need to set up a project citizen science

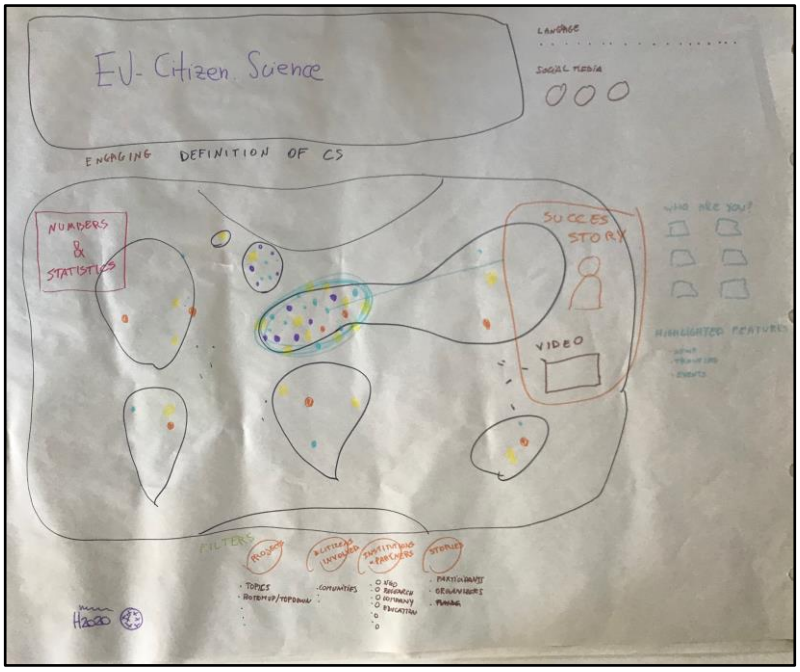
		data to change things)	

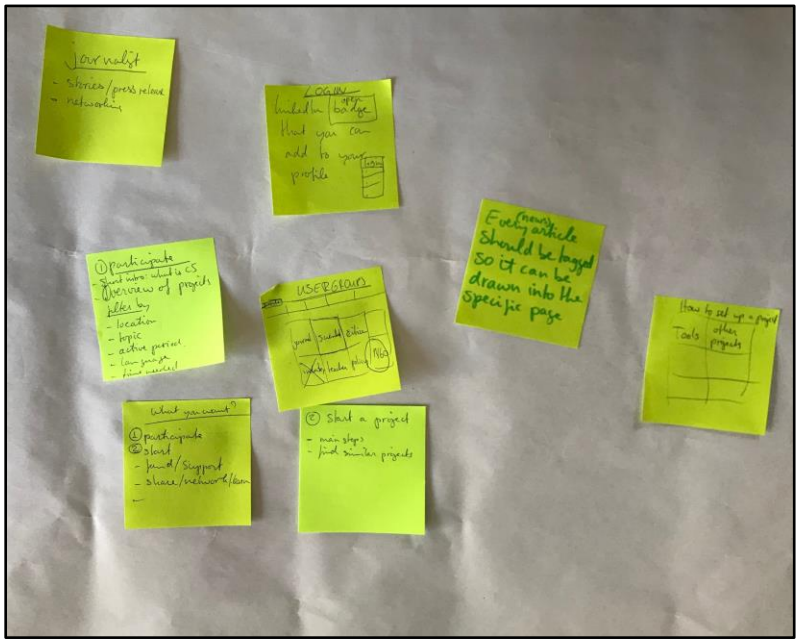
Flanders	8+	• Citizen science definitely developing
		• List of criteria
		• Flemish government calls for citizen science projects
		• Stakeholder engagement encouraged in research calls
		• 'Everybody SC' platform for citizen science + nature organizations (biodiversity)
		• 20,000 → citizen science on the map
		  ○ In the media
		  ○ Made people aware (but not using citizen science name)
		• Cities getting interested
		• Bottom-up initiatives (e.g. air quality)
			• Networking - where/ how to find the right partners
			• Lots of scientists still think it's not applicable to their research

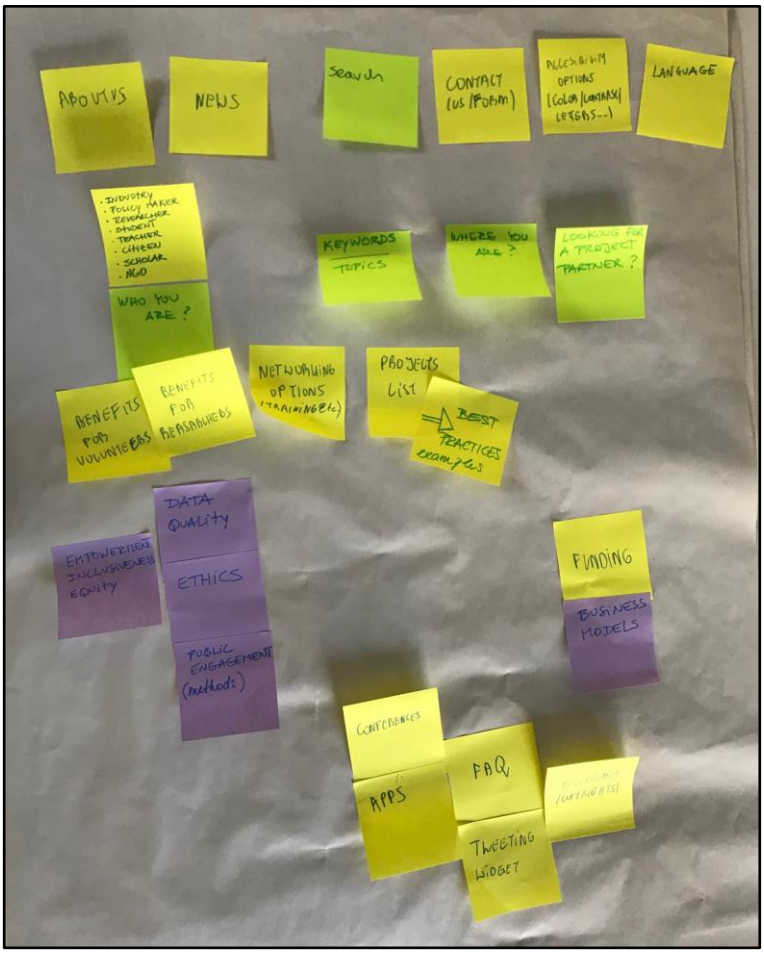
Netherlands	8	• 95% of data provided (to EU) would not be known without citizen science • Everyone talking about it, but not as citizen science • Lots of initiatives • NWO: if you include citizen science in research you get A+ • Meetings etc. • On policy level → it is called citizen science!	

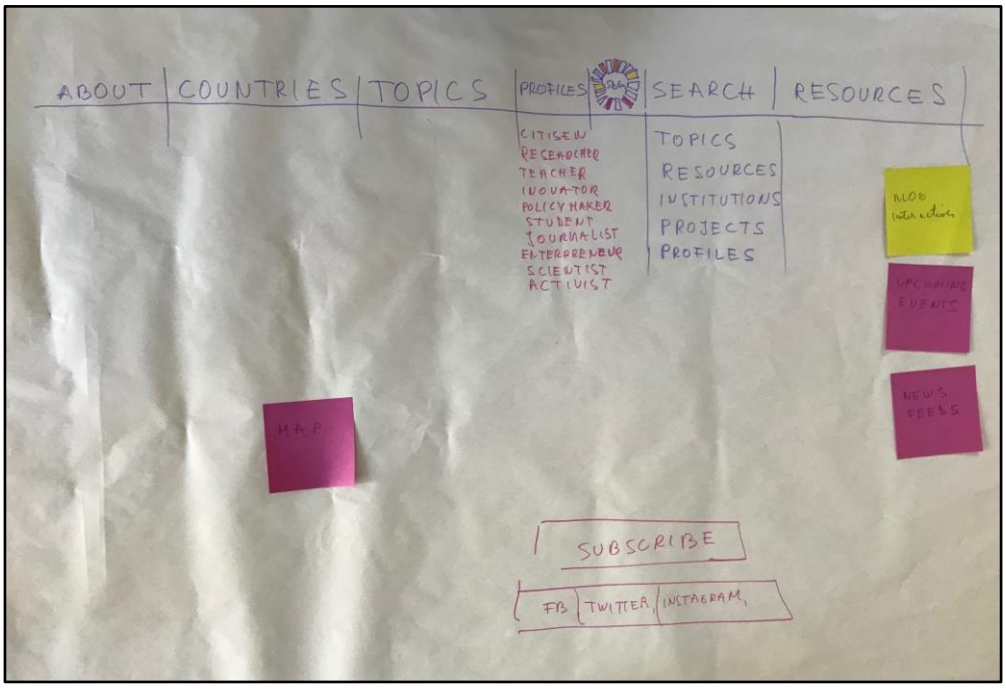
Session 5: Imagining the platform of the future

To conclude the workshop, participants split into groups of four and were invited to draw the homepage of the EU-Citizen.Science platform, as they imagined it. The following images capture these results.






ABOUTUS
NEWS
Search
CONTACT (US/FORM)
PLACEHOLDER OPTIONS (COLOR/CONTRAST/LETTERS...)
LANGUAGE
· INDUSTRY
· POLICY MAKER
· RESEARCHER
· STUDENT
· TEACHER
· CITIZEN
· SCHOLAR
· NGO
WHO YOU ARE ?
KEYWORDS / TOPICS
WHERE YOU ARE ?
LOOKING FOR A PROJECT PARTNER ?
BENEFITS FOR VOLUNTEERS
BENEFITS FOR RESEARCHERS
NETWORKING OPTIONS (TRAININGS/etc)
PROJECTS LIST
BEST PRACTICES examples
DATA QUALITY
ETHICS
PUBLIC ENGAGEMENT (methods)
EMPOWERMENT INCLUSIVENESS EQUITY
FUNDING
BUSINESS MODELS
CONFERENCES
APPS
FAQ
TWEETING WIDGET


ABOUT | COUNTRIES | TOPICS | PROFILES | SEARCH | RESOURCES
CITIZEN
RESEARCHER
TEACHER
INNOVATOR
POLICY MAKER
STUDENT
JOURNALIST
ENTERPRENEUR
SCIENTIST
ACTIVIST
TOPICS
RESOURCES
INSTITUTIONS
PROJECTS
PROFILES
BLOG
UPCOMING EVENTS
NEWS FEEDS
MAP
SUBSCRIBE
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During a plenary after these results were presented, the participants made additional comments:

- Will it have consumer fragmentation or be product oriented? (Who am I, and what do I want to find here?)
- It could include a 'What is citizen science?' 3-minute movie
- It should highlight 'star' projects
- Don't make it look like a project!
- It should have filters to sort information

Next steps

The findings from the workshop are being used by ECSA and other consortium partners to guide the planning of the EU-Citizen.Science platform, especially activities in Work Package 2, which focuses on stakeholder mapping, community building and engagement strategies, and the user-led design of the platform.

Annex I. Participant list

No.	Name	Country
1	Marzia Mazzonetto (organizer)	Belgium
2	Katherine Wagenknecht (organizer)	Germany
3	Tim Woods (organizer)	Germany
4	Matthijs Begheyn	Netherlands
5	Elisabetta Broglio	Spain
6	Egle Butkeviciene	Lithuania
7	Daphnie Daras	Belgium
8	Annelies Duerinckx	Belgium
9	Romain Julliard	France
10	Andrzej Klimczuk	Poland
11	Cristina Luis	Portugal
12	Monika Mačiulienė	Lithuania
13	Eva Novakova	Czech Republic
14	Marta Oliveira	Portugal
15	Carole Paleco	Belgium
16	Kalterina Shulla	Albania
17	Elena Simperl	UK
18	Maria Vicente	Portugal

Annex II. Agenda

Wednesday, 10 April

13:00-14:00	Welcome lunch
14:00-14:30	Session 1: Introduction to the COST Action CA15212 and the EU-Citizen.Science project
14:30-15:30	Session 2: The challenges of mainstreaming citizen science
15:30-16:00	Coffee break
16:00-18:00	Session 3: Workshop - stakeholders, key networks and platform-community members
19:30	Group dinner

Thursday, 11 April

9:00-10:30	Session 4: World café - community needs and expectations assessment
10:30-11:00	Coffee break
11:00-12:30	Session 5: World café - imagining the EU-Citizen.Science platform of the future
12:30-13:00	Closing remarks
13:00	End of meeting