CSI-COP

Citizen Scientists Investigating Cookies and App GDPR compliance

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Deliverable D4.3 | D17

Age, Gender, Socio-Economic and Geographical (AGSEG) Distribution Report

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R	Report, **DEM**: Demonstrator, pilot, prototype, plan designs, **DEC**: Websites, patents filing, press & media actions, videos, etc., **OTHER**: Other **(**Database, online tools, questionnaires, etc)	
CO	Confidential, only for members of the Consortium (including the Commission Services)	
CI	Classified, information as referred to in Commission Decision 2001/844/EC.	

Version control table

Version Control				
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List of Acronyms

Acronym	Definition
CS	Citizen Science/Citizen Scientist
CSI-COP	Citizen Scientists Investigating Cookies and App GDPR Compliance
CSP	Citizen Science Project
D4.3	Project Deliverable 4.3, this report
DESI	Digital Economy and Society Index
E	Ethics
EC	European Commission
ECSA	European Citizen Science Association
EU	European Union
GDPR	General Data Protection Regulation enacted by the European Union in May 2018 and adopted in EU countries
GE	Gender Equality
H2020	Horizon 2020 (The EU Framework Programme for Research and Innovation)
ICT	Information and Communication Technology
MoRRI	Monitoring the Evolution and Benefits of Responsible Research and Innovation
NGO	Non-governmental Organisation
OA	Open Access
OECD	Organisation for Economic Co-operation and Development
PE	Public Engagement
SLSE	Science Literacy and Education
S&T	Science and Technology
SES	Socio-Economic Status
STEM	Science, Technology, Engineering and Mathematics
SwafS	Science with and for Society program (EU Horizon 2020 programme)
T4.3	Task 4.3 of CSI-COP
TFEU	Treaty on the Functioning of the European Union
UN SDG	United Nations Sustainable Development Goals

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WP	Work Package

Definition of Terms

Term	Definition
App	A mobile application is a computer program or software application designed to run on a mobile device such as a phone, tablet or watch.
Broadband	In the context of Internet access, broadband is used to mean any high-speed Internet access that is always on and faster than dial-up access over traditional analogue services.
Citizen science	Public participation in scientific research.
Citizen scientist	Curious or concerned member of the public who collaborates with professional scientists in ways that advance scientific research on topics they care about.
Data privacy	Data privacy or information privacy is a branch of data security concerned with the proper handling of data – consent, notice, and regulatory obligations.
Demographic data	Demographic data includes general statistics about the population and characterise different groups and subgroups. It can refer to a whole country, a region, a city, or an individual. Basic demographic data about individuals consists of such information as age, gender, ethnicity, type of employment, education, marital status, and so on.
Digital divide	It is the gap between those individuals and communities that have access to new forms of information technology and the Internet, and those that do not.
Digital literacy	Digital literacy refers to an individual's ability to find, evaluate, and compose clear information through writing and other media on various digital platforms.
Disability	According to The World Health Organisation (WHO), disability is an umbrella term, covering impairments, activity limitations, and participation restrictions. Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives. Walking, seeing, hearing and cognition are considered essential in determining disability.
Diversity	The diversity definition refers to the existence of variations of different characteristics in a group of people. These characteristics could be everything that makes us unique, such as our cognitive

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	skills and personality traits, along with the things that shape our identity (e.g. race, age, gender, religion, sexual orientation, cultural background).
Gender	Either of the two sexes (male and female), especially when considered with reference to social and cultural differences rather than biological ones. The term is also used more broadly to denote a range of identities that do not correspond to established ideas of male and female.
Information society	An information society is a society where the usage, creation, distribution, manipulation and integration of information is a significant activity. Its main drivers are information and communication technologies.
Social exclusion	Exclusion from the prevailing social system and its rights and privileges, typically as a result of poverty or the fact of belonging to a minority social group.
Socio-economic groups	Different groups of persons where the members of a particular group are, on the one hand, reasonably homogeneous and, on the other hand, fairly clearly distinguished from members of other groups in respect of their social, economic, demographic and/or cultural circumstances and behaviours.
Socio-economic status	Socioeconomic status (SES) is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others. When analysing a family's SES, the household income, earners' education, and occupation are examined, as well as combined income, whereas for an individual's SES only their own attributes are assessed.

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Executive Summary

Citizen scientists can play a crucial role in advancing new knowledge. Volunteers in citizen science projects can contribute to a better understanding of a specific area of science and to monitoring compliance of laws and regulations – but who are citizen scientists? This report responds to this very question in a EU Horizon 2020 Science with and for Society (SwafS) project, CSI-COP, funded under the grant call SwafS 15-2019. CSI-COP engaged citizen scientists with the objective of investigating compliance of the general data protection regulation (GDPR) specifically with respect to transparency and informed consent around cookies and tracking technologies. In previous citizen science projects, the volunteers were found to be mostly middle-aged white men. In CSI-COP the consortium partners adopted an inclusive and diverse approach to engaging the general public, especially since the Internet has a very broad usage. This was achieved by firstly informally educating members of the general public through a free educational resource 'Your Right to Privacy Online' and then joining volunteer citizen scientists to apply their new knowledge and skills to exploring beneath websites and in apps.

Citizen scientists' investigations generated two databases in work package 4 (WP4): a) of websites investigated in task T4.1, and b) of apps explored for task T4.2. This document, the final outcome from WP4 in task T4.3 details who the citizen scientists participating in CSI-COP were by presenting information gained from volunteers who completed the free education resource, and through informed consent, completed a survey providing anonymous information about themselves. CSI-COP succeeded in gaining more female citizen scientists than male citizen scientists (86 | 78). Additionally, this report details the age range of CSI-COP's recruited citizen scientists, their non-precise geographical location and information on socio-economic status: accessibility issues and occupation (student/non-student).

Keywords: accessibility, age range, apps, citizen science, data privacy, demographic data, distribution, diversity, European Union, GDPR, gender, geographical location, inclusivity, Internet access, Internet usage, socio-economic background, website.

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1 Introduction

Citizen science is a valuable contribution to the work of professional scientists and can advance knowledge producing a better understanding of science. For this outcome it is crucial to adopt an inclusive and diverse approach to engaging members of the public. In the CSI-COP EU funded project engaging the general public to co-investigate compliance of the general data protection regulation (GDPR) in websites and apps, we first conducted research in work package 2 (WP2) to find the best practices in citizen science and learn what the challenges are to inclusive citizen science. Findings from CSI-COP partners' collaborative research led to approaching a variety of organisations, and adopting an inclusive plan to contact a diversity of people (male and female, wide age ranges, urban and rural located) to join the project.

According to Article 8 of the Preamble of the Treaty on the Functioning of the European Union (TFEU): "in all its activities, the Union shall aim to eliminate inequalities, and to promote equality, between men and women". Furthermore, Article 10 states: "in defining and implementing its policies and activities, the Union shall aim to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation" (European Union, 2012). According to the 6th of the ten principles of citizen science, presented by the European Citizen Science Association (ECSA), "citizen science is considered a research approach like any other, with limitations and biases that should be considered and controlled for. However, unlike traditional research approaches, citizen science provides opportunity for greater public engagement and democratisation of science" (ECSA, 2015). In perfect accordance with these principles the CSI-COP project integrated diversity with gender mainstreaming to engage as widely from members of the general public across Europe and beyond utilising many communication tools and focusing on the expected impacts.

This report presents anonymised information on the citizen scientists engaged in CSI-COP who completed a pre-participation survey (Survey 1). CSI-COP objectives involved engaging a diverse cohort including females and younger people in the project to join and explore the extent of online tracking in websites and apps. This was first achieved by delivering free informal education, Your Right to Privacy Online, available as a short 'massive open online course' (MOOC). The MOOC was translated and delivered in online workshops, and when and where COVID-19 restrictions were lifted, in face-to-face and hybrid workshops across Europe and in Israel. Before individuals progressed from completing the MOOC and giving informed consent to join CSI-COP as citizen scientists, a short anonymous survey was made available for their completion. The outcome of this pre-participation survey (Survey 1) was part of work package 4 (WP4), following the informal education of members of the public in work package 3 (WP3) (Shah et al., 2022ab). CSI-COP followed GDPR-compliance throughout project execution seeking full informed consent for the prospective citizen scientists to tell us a little about themselves through an anonymous survey. The survey questions are found in Appendix 1. The findings from citizen scientists survey completions are detailed here from task T4.3. This deliverable report (D4.3) is structured as follows: methodology to capture who CSI-COP citizen scientists were, and a statistical analysis of the completed anonymous surveys.

It must be said here that not all the individuals who completed MOOC or attended a workshop completed the pre-participation survey. Additionally, some people attending a workshop completed the survey but did not join the project as citizen scientists. We have not included these people's data in this

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report. The data presented here is from one hundred and seventy (170) completed surveys from the majority of over one hundred and eighty (180+) CSI-COP engaged citizen scientists. Of these 170 completed citizen scientists' surveys, the male to female ratio was 78 | 86. More than half (103; 60%) were younger than age 40. Students were among the citizen scientists who completed CSI-COP's Survey 1 (70; 41%). These and other findings from Survey 1 contribute to the project's expected impacts including a) gender equality, b) scientific literacy and education, c) ethical and responsible research, d) public engagement and e) open-access.

2 Methodology

This report builds on the outcome of research led by the first two authors for CSI-COP project deliverable D2.2 in Work Package 2 (Hinsenkamp et al., 2020). The exploration involved understanding the challenges to inclusive citizen science. That research and the gathering of a wide variety of organisations in a dataset helped to reach a broad audience that included speakers of different languages, females and students and employed people. The first step in engaging members of the general public involved raising awareness of a free educational resource, 'Your Right to Privacy Online' created as part of work package 3 (WP3) recruitment and informal education tasks. Consortium partners NaTE and IB accepted extra tasks so joined the original WP3 partners on termination of one CSI-COP beneficiary to deliver the free education resource and recruit citizen scientists from members of the public who completed the course. Partners involved in those tasks also contributed to task T4.3 producing this outcome – report on who CSI-COP citizen scientists are with respect to gender, age range, geographical location and socio-economic status. **The partners involved were Coventry University (CU), University of Patras (UPAT), Czech Technical University (CTU), Bar-Ilan University (BIU), Universitat Autònoma de Barcelona (UAB), University of Oulu (UOULU), Association of Hungarian Women in Science (NaTE) and Immer Besser (IB).**

The data that form the basis of Task T4.3 were collected using **CSI-COP's pre-participation survey (Survey 1)**, which was created as part of the project's GDPR compliance and preparation for the engagement of citizen scientists. Partner institutions reviewed the questions of the pre-participation survey compiled by Coventry University and as a result of this team effort the English survey was finalised before launching CSI-COP's MOOC and face-to-face workshops.

Being a project team that has been deeply committed from the beginning taking data protection considerations most seriously, it was a challenge for us to methodologically address the tension between this commitment and our objective to create a meaningful report on the distribution of our citizen scientists by different characteristics of their background. When designing the pre-participation survey, we navigated the fine line where both aspects gain equal importance. In accordance with this, Survey 1 does not contain any questions eliciting personal information that could identify any individual.

The aim of the questions asked was to gather some non-identifiable data on the respondents' age range, gender, geographical location type, dominant language and occupation. Additionally, respondents were asked if they regarded themselves as having some **accessibility issues**. Further questions asked the respondents' **mode of Internet access, frequency and purpose of Internet use** and **frequency of apps usage on desktops/laptops** as well as **on mobile devices**. Those who reported regular apps usage, were also asked to select the types of apps they used from a list and to give some

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specific examples. The survey questions for the general public in the pre-participation phase (pre website and app investigations) can be seen in the Appendix of this document.

The English survey was translated into twelve languages by partners[1]. A **bilingual survey** was deployed by some partners with the English version and the translated version in the same document provided for the citizen scientists. However, since participation in citizen science projects is voluntary, participants cannot be required to complete surveys. In this spirit, we emphasised that **filling in the pre-participation survey was completely voluntary**. Additionally, the survey listed "prefer not to say" among the answer options to each question. This meant some unavoidable limitation in terms of the collection of demographic and socio-economic data with some citizen scientists preferring not to answer these questions. Fortunately, the vast majority (170) of the 180+ recruited citizen scientists were willing to complete the survey. Due to the fact that they did it voluntarily, the provided data are more likely to be accurate.

Data collection and processing took place in accordance with the data anonymisation and purpose limitation principles detailed in CSI-COP's second data management plan (Shah et al., 2022c). Partners allocated a **unique reference number** to each of the learners who completed CSI-COP's informal education course and received a certificate, e.g. BIU_M09, UPAT_F105, CU_O45, etc. The partner acronym is followed by the letter that reveals whether CSI-COP's free educational resource was completed using the online MOOC (M), or after a face-to-face (F) or online (O) workshop; and a unique number from 01.

The process of collecting the surveys was as follows: when a survey had been completed, the receiving partner anonymised it by extracting the email address and name of the learner from any other information, thus keeping them confidential. The anonymised survey was then passed with the unique reference allocated by the recruiting partner, to task T4.3 leading partner NaTE only. This allowed for any queries on task T4.3 to be resolved easier with the appropriate partner. The coordinating partner, CU, kept no central record of all learners to limit the consequences of any data breaches.

NaTE received the first pre-participation surveys in English in June 2021. As soon as the English informal education course material was translated into the language of the partner countries and they started to hold workshops in their own language, the number of pre-participation surveys that were completed and forwarded to NaTE by the partner institutions gradually began to increase. With the easing of COVID-19 restrictions, it became possible for partners to organise face-to-face workshops, co-investigation sessions and personal consultations. This gave impetus to the **data collection process**, which **was completed in mid-December 2022**.

NaTE did not pass the surveys on to any other partner institutions, but securely stored and handled all surveys in an online secure space. Only two members of NaTE's team had access to the surveys. They created a password-protected Excel file specifically for the purposes of T4.3, which was also securely stored. NaTE **systematically and continuously recorded the anonymous data** of learners in this database, then checked and double-checked all data that were entered into the database. During the entire period of data collection, NaTE regularly presented the current number and distribution of

[1] Catalan, Czech, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Polish, Romanian and Spanish

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learners at the most important consortium meetings to remind partners to send any received surveys, an also to update all partners about the progress of task T4.3.

Following the production of two databases, one from citizen scientists website investigations (Shah & Winter, 2022a; Task 4.1) and the second from app investigations (Shah & Winter, 2022b; Task 4.2) all but one recruiting partner informed NaTE which of their learners had become citizen scientists by sending the corresponding reference numbers to NaTE, which allowed NaTE to **filter the data of citizen scientists** from all previously entered data and finalise the database accordingly. This process was completed at the end of December 2022 (M36).

In January 2023 (M37 in the project) the analysis of the citizen scientists' surveys was finalised to meet the deliverable report deadline of 31 January 2023. This work included editing to present our findings from the survey in the best possible form.

3 Statistical analysis of the distribution of citizen scientists

3.1 Citizen scientists in the CSI-COP project

In the CSI-COP project **we define a citizen scientist (CS) as** a member of the public who:

- completed the free educational resource 'Your Right to Privacy Online' in English or one of the languages it had been translated into, either in their own time or by attending one of the workshops;
- gave informed consent to join CSI-COP and conduct website and app investigations;
- submitted website/app investigations to the CSI-COP partner who had recruited them;
- partners uploaded the investigations to the project's private and secure SharePoint space by 21 December 2022.

In the data collection phase of WP4, the CSI-COP consortium partners involved in T4.3 sent a total number of 540 pre-participation surveys to NaTE, completed by learners who had either taken CSI-COP's MOOC 'Your Right to Privacy Online', or participated in a face-to-face or online CSI-COP workshop. Therefore **the database of learners contains the data of 540 persons, 170 of whom met the conditions listed above and became citizen scientists.**

Over half of the learners, 322 (59%) emerged responding to the pre-participation survey (Survey 1) after attending one of the partner workshops completing the course in a synchronous manner so gaining their learning at the same time as others (Table 1). The next most response-rate of the survey was following individual learners completing the MOOC asynchronously, which means they completed the free educational course in their own time (Table 1). All learners gained a CSI-COP informal education certificate on completion of the self-assessment ten multiple choice questions contained in the MOOC. At the time of this deliverable, five hundred and forty learners had taken the opportunity to increase their scientific literacy around the topic of human rights to privacy online (Table 1).

This activity is ongoing with partners continuing to raise awareness of CSI-COP MOOC, part of the project's legacy. The final number will be reported in the project's concluding deliverable report, also led by NaTE partner.

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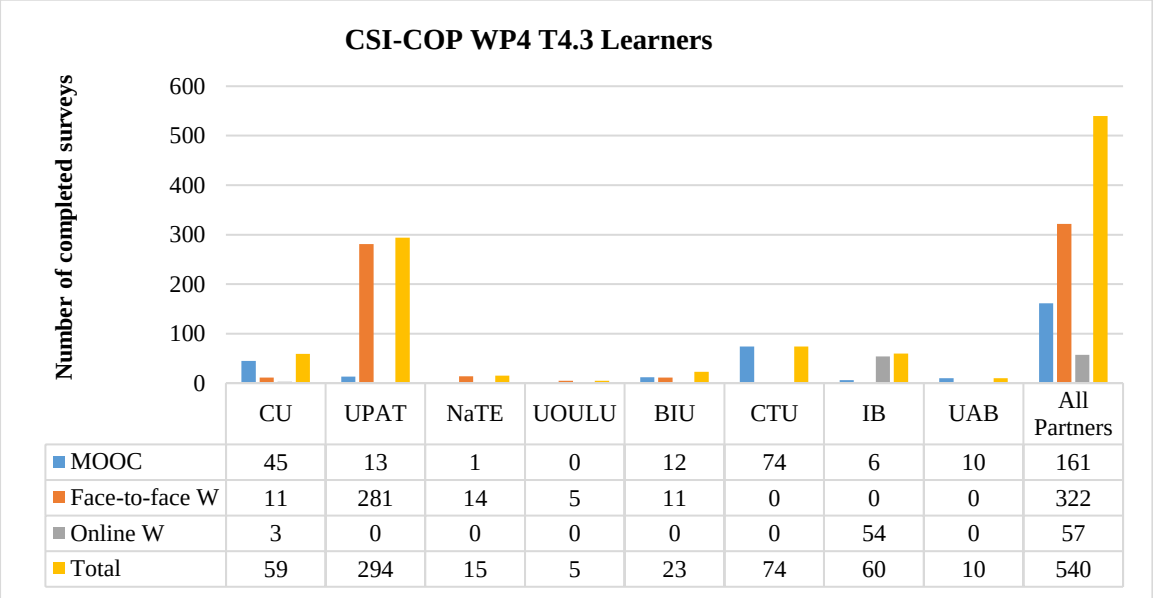
Table 1: Total number of individuals who completed CSI-COP's free educational resource 'Your Right to Privacy Online' and the pre-participation survey

Partners	CU	UPAT	NaTE	UOULU	BIU	CTU	IB	UAB	All Partners
MOOC	45	13	1	0	12	74	6	10	**161**
Face-to-face workshop	11	281	14	5	11	0	0	0	**322**
Online workshop	3	0	0	0	0	0	54	0	**57**
Total	**59**	**294**	**15**	**5**	**23**	**74**	**60**	**10**	**540**

Figure 1 presents the free course completion rate through the available routes in a different way. Over half of the individuals (294; 54%), who completed the free educational resource did so in Greek engaged by University of Patras. Czech, Romanian and English were the next languages with the most individuals completing the course. It is to be noted here that some partners began their citizen science engagement activities later than others. The reason for this is firstly due to two partners (NaTE; IB) who were not allocated citizen science engagement tasks in the original CSI-COP proposal, agreed to take on citizen science recruitment tasks following a terminated university partner in an Amendment to the original grant agreement (Shah, 2022).

Figure 1: Different paths to complete CSI-COP's free educational resource 'Your Right to Privacy Online'



	CU	UPAT	NaTE	UOULU	BIU	CTU	IB	UAB	All Partners
MOOC	45	13	1	0	12	74	6	10	161
Face-to-face W	11	281	14	5	11	0	0	0	322
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Total	59	294	15	5	23	74	60	10	540

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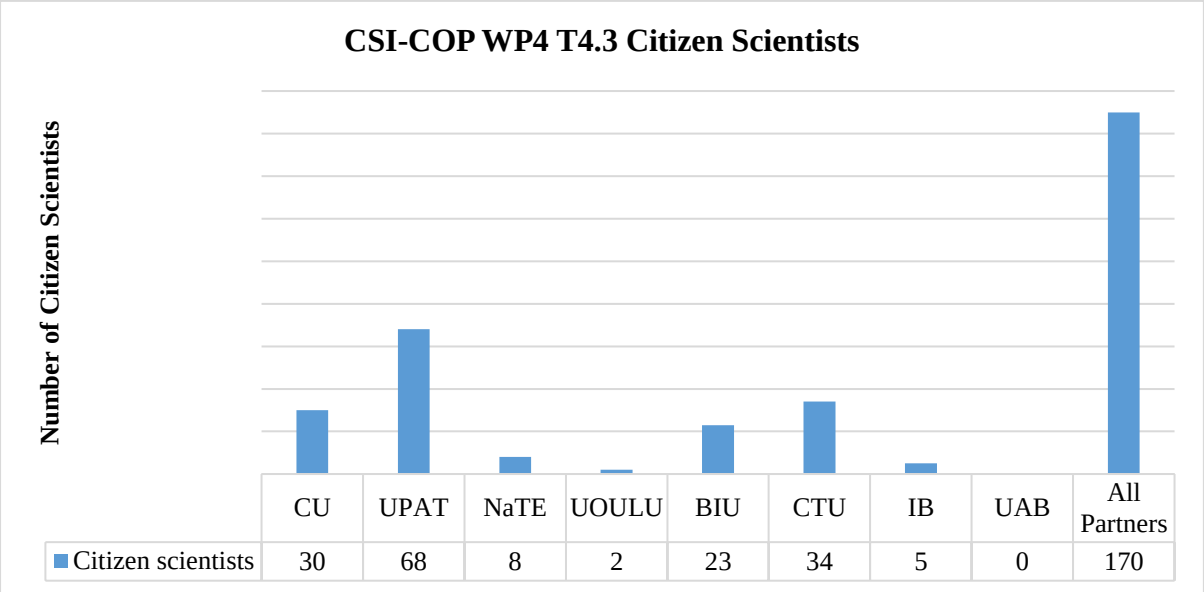
The number of citizen scientists engaged by CSI-COP partners who completed the survey is shown in Table 2 and Figure 2 below. University of Patras recruited the most, 68 (40%) citizen scientists who completed Survey 1.

Table 2: Number of citizen scientists who completed the pre-participation survey by CSI-COP partner

Partners	CU	UPAT	NaTE	UOULU	BIU	CTU	IB	UAB	All Partners
Citizen Scientists	30	68	8	2	23	34	5	0	170

Figure 2: Number of citizen scientists who completed the pre-participation survey by CSI-COP partner



The detailed analysis of the 170 citizen scientists' survey data in the following sections will shed light on their distribution by age range, gender, socio-economic background and geographical location.

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3.2 Age range

In Survey 1, we defined four age groups, and we also gave the respondents the option not to state their age range. As Table 3 shows, five of the respondents chose this option. In accordance with the original grant agreement, partners recruited people aged 18 and over.

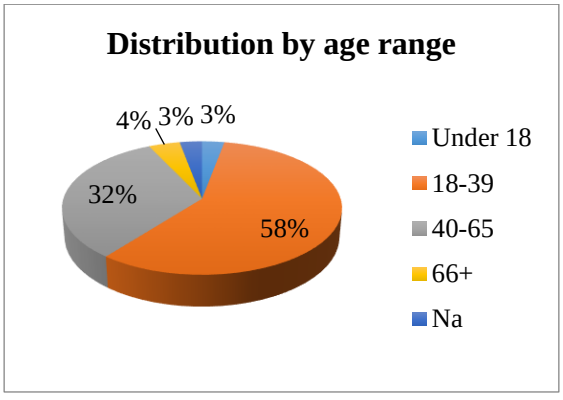
Table 3: Distribution of survey-completing CSs by age-range

Age range	Total
Under 18	5
18-39	98
40-65	55
66+	7
N/A	5
Grand Total	**170**

With a fresh ethics application made by the coordinating partner, CU, to its university research ethics panel, CSI-COP received ethical approval in 2022 to recruit under-18s through a revised GDPR-compliant participation information and informed consent sheets. CU engaged five citizen scientists aged 17 in 2022. **More than half of our survey-completing citizen scientists (98; 58%) are young people aged 18-39**, while 55 of them (32%) belong to the age group of 40-65 years. Seven older members of the public aged 66 and over chose to investigate websites/apps as CSI-COP's citizen scientists. Their proportion is below 5%.

The pie chart in Figure 3 presents the age-range of survey completing citizen scientists as a percentage of the total number of CSI-COP's citizen scientists (Na is not applicable).

Figure 3: Pie chart of percentage of survey-completing CSs across ages



According to Eurostat, social isolation in general increases in old age (Eurostat, 2010). However, the number of older people volunteering is increasing in several countries. Longer life expectancy and the emphasis on active ageing have meant that older people in Europe possess both the free time and the

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skills that can be transferred to voluntary activities (GHK, 2010). According to CSI-COP's previous findings, with the exception of projects that specifically targeted students and the youth, middle-aged and older age groups are usually more interested in citizen science projects (Hinsenkamp et al., 2020).

Nevertheless, when it comes to topics of information technology, a different picture emerges. As we pointed out in CSI-COP's deliverable "Guidelines for Diverse Citizen Science Recruitment", the elderly tend to be on the losing side of the digital divide (Hinsenkamp et al., 2020). Age is the strongest predictor among socio-demographic factors that hugely account for the variance in Internet usage (Büchi et al., 2016). For example, the share of individuals who never use the Internet is the highest (37%) among 65-74 year olds in the EU (European Commission, 2019).

These trends explain CSI-COP's success in engaging a higher proportion of young people compared to other citizen science projects and at the same time, they are reflected in the relatively low number of citizen scientists above the age of 65 recruited by the CSI-COP team. Breaking down the data on age range by gender allows a more nuanced understanding of participation in citizen science, as shown in the next section.

3.3 Gender

In the spirit of inclusivity, we provided the following answer options for the question about gender in the Survey 1: Female, Male, Intersex, Trans umbrella, Other, and Prefer not to say. None of the CSI-COP respondents declared themselves transgender or intersex persons, but one of them chose the 'Other' category and five of them did not give an answer to this question. **Eighty-six of CSI-COP's 170 Survey 1-completing citizen scientists (approximately 50%) are women and 78 (46%) of them are men.** The distribution of our citizen scientists by gender is shown in Table 4 and Figure 4 below.

Table 4: Distribution of survey-completing CSs by gender

Gender	Total
Female	86
Male	78
Other	1
N/A	5
Grand Total	**170**

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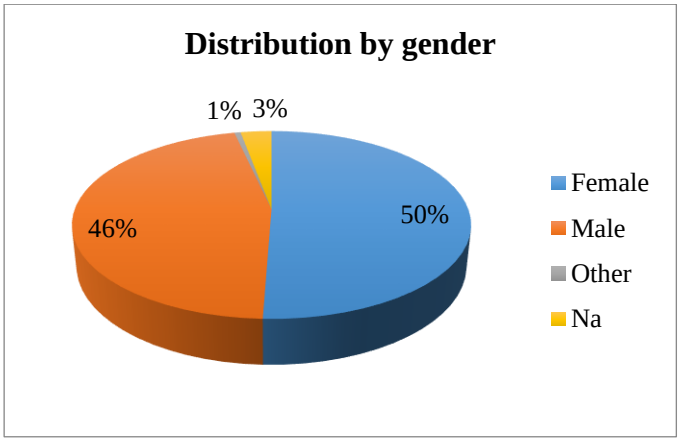
Figure 4: Pie chart of percentage of survey-completing CSs by gender



The gender balance of volunteers varies considerably across European countries. In general, however, most countries tend to have either a greater number of male volunteers than female or an equal participation between men and women (GHK, 2010). As regards voluntary participation in citizen science specifically, CSI-COP's previous research findings show that the gender distribution of the participants depends largely on the topic of the project (Hinsenkamp et al., 2020). ICT and astronomy attract predominantly male citizen scientists, who often have a degree in STEM fields (Hinsenkamp et al., 2020).

It is very likely that the reasons behind this are to be found in the different computer usage habits and computer skills of men and women. Although the European gender Internet access divide almost completely closed by the turn of the millennium (van Dijk, 2006), men still use the Internet slightly more than women do and there are proportionately more men than women with at least basic digital skills (Eurostat, 2019; European Commission, 2019).

Furthermore, the topic of online data privacy, on which the CSI-COP project focuses, is a novel and unique theme even within the ICT-related citizen science scene and there are gender differences regarding attitudes towards this topic. Research shows that women are generally more concerned with their online privacy than men, yet they rarely adopt the privacy protection behaviour that men do, at least in terms of the technical (not social) aspect of privacy protection. Some studies suggest that the explanation for this so-called "privacy paradox" is that men are better equipped in dealing with privacy technical issues than women. Additionally, men appear to have broader confidence, while women in general lack the necessary technological literacy and digital self-efficacy (Fogel and Nehmad, 2009; Milne et al., 2004; Park, 2015).

For these reasons, accompanied by women's more limited time availability, which was exacerbated by the COVID-19 pandemic (Flaherty, 2020), the CSI-COP team expected to face challenges in recruiting female citizen scientists. On the other hand, we considered it essential to recruit as many of them as possible for the very same reasons. The fact that, despite all the above, CSI-COP's female citizen scientists outnumber males indicates that our recruitment efforts to reach gender inclusivity by leveraging special events and targeting women organisations in order to reach curious girls and women have paid off.

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As pointed out in CSI-COP's deliverable report D2.2 "Guidelines for Diverse Citizen Science Recruitment", research shows that age has an effect on the gender balance in the field of voluntary activities in general (Hinsenkamp et al., 2020). The difference in the volunteering rate between men and women is particularly significant for individuals aged between 45 and 75 years (GHK, 2010).

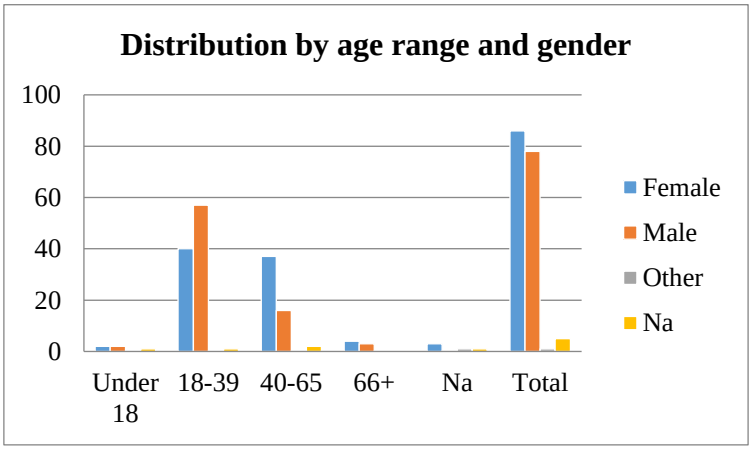
In the case of citizen science, the analysis of Füchslin et al. (2019) shows that the most accessible are usually men around the age of 55, with higher education, who are already interested in scientific topics. Young people interested in science are also mostly men with higher education, 26 years old on average. In the case of women, there is a stronger interest in engaging in scientific research on the part of freelancers above the age of 40.

Our experience in the CSI-COP project partially differs from these findings. When our citizen scientists' data on age range are broken down by gender, it can be seen that the number of participants in the group of middle-aged males is only 16 out of 170. The largest group of participants is made up of 57 men aged between 18 and 39, followed by the groups of 40 younger (aged 18-39) and 37 middle-aged (40-65 years) women. In summary, the participation of young people is higher among both men and women; and while the number of men in the 18-39 age group significantly exceeds that of women, in the 40-65 age group there are more than twice as many women than men (see Table 5 and Figure 5).

Table 5: Distribution of survey-completing CSs by age range and gender

Age range	Female	Male	Other	Na	Grand Total
Under 18	2	2		1	5
18-39	40	57		1	98
40-65	37	16		2	55
66+	4	3			7
N/A	3		1	1	5
Grand Total	**86**	**78**	**1**	**5**	**170**

Figure 5: Chart of survey-completing CSs by age range and gender



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3.4 Socio-economic background

3.4.1 Occupation

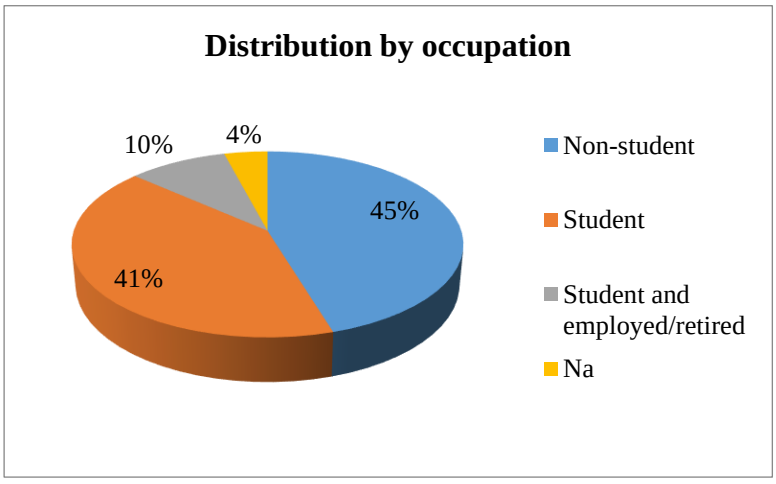
CSI-COP's Survey 1 contained a number of anonymised questions about the socio-economic background of respondents. First of all, they were asked to state whether they were students or non-students. The distribution of respondents by occupation is shown in Table 6 below. Seven of our 170 survey-completing citizen scientists did not wish to provide information on their student/non-student status. Out of the remaining 163 respondents **77 are non-students and 70 of them reported themselves as students only**. Sixteen of CSI-COP's survey-completing citizen scientists reported themselves as students, but also selected an employment status category, indicating that they continue studies while working.

Table 6: Distribution of survey-completing CSs by occupation

Occupation	Total
Non-student	77
Student	70
Student and employed/retired	16
N/A	7
Grand Total	**170**

The pie chart in Figure 6 visually displays the proportion of CSI-COP's survey-completing citizen scientists with different occupations.

Figure 6: Pie chart of percentage of survey-completing CSs by occupation



For those who are self-reportedly non-students, we created seven categories to best describe their employment status. More than half of them **(40 respondents) are employed: 31 working 36.5 or more hours per week and nine working 1-36 hours per week**. The rest of the non-student respondents are not employed, due to different reasons. Twenty-three not-employed citizen scientists are looking for

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work, while three are not looking for work. One respondent is not able to work because they have some kind of accessibility issues. One person chose not to select any of the employment status categories and none of the respondents belong to the category 'Refugee seeking asylum'. CSI-COP has nine retired citizen scientists. These data are presented in Table 7.

Table 7: Distribution of survey-completing non-student CSs by employment status

Non-student	Total
Employed, working 36.5+ hrs/w	31
Employed, working 1-36 hrs/w	9
Not employed, looking for work	23
Not employed, not looking for work	3
Accessibility issues, not able to work	1
Retired	9
N/A	1
Grand Total	**77**

Students were asked to say the level of their studies (Undergraduate, Postgraduate, Doctoral, or Other). According to their answers, more than half of them **(40 respondents) participate in undergraduate education**. Six of them are at the postgraduate level, and 19 of them continue doctoral studies. Five students chose the "Other" category, which might be explained by the fact that, as shown later in this section, four of the students are citizen scientists under the age of 18 still in high school (see Table 8).

Table 8: Distribution of survey-completing student CSs by level of education

Student	Total
Doctoral	19
Postgraduate	6
Undergraduate	40
Other	5
Grand Total	**70**

As Table 9 shows, the majority of those who continue studies while working are full-time employees. Only two postgraduate and four undergraduate students are working less than 36 hours per week. Interestingly, one of our retired citizen scientists takes part in postgraduate education.

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Table 9: Distribution of survey-completing CSs who continue studies while working by level of education and employment status

Student and employed/retired	Total
Doctoral	
Employed, working 36.5+ hrs/w	1
Postgraduate	
Employed, working 36.5+ hrs/w	5
Employed, working 1-36 hrs/w	2
Retired	1
Undergraduate	
Employed, working 36.5+ hrs/w	3
Employed, working 1-36 hrs/w	4
Grand Total	**16**

CSI-COP's previous findings (Hinsenkamp et al., 2020) highlight a clear trend between the level of volunteering among the population and an individual volunteer's highest attained level of education. The national reports of twenty EU countries have illustrated that there is a positive correlation between education levels and the tendency to volunteer. In short, the better-educated people are the more likely they are to volunteer. Several international studies have also shown that volunteers tend to come from better-educated segments of the population (GHK, 2010). The high proportion of people participating in higher education among CSI-COP's citizen scientists is in line with this trend.

Not surprisingly, the student/non-student status of the respondents is strongly related to their age, as can be seen in Table 10 and Figure 7 below. Of the 98 citizen scientists between 18 and 39 years of age, 60 are students, ten continue studies while working, and only 26 are not studying. By contrast, 45 citizen scientists in the 40-65 age group are non-students, which is the vast majority of this group of 55 participants. Five people from this age group are students and employees at the same time, and only four people reported themselves as student only.

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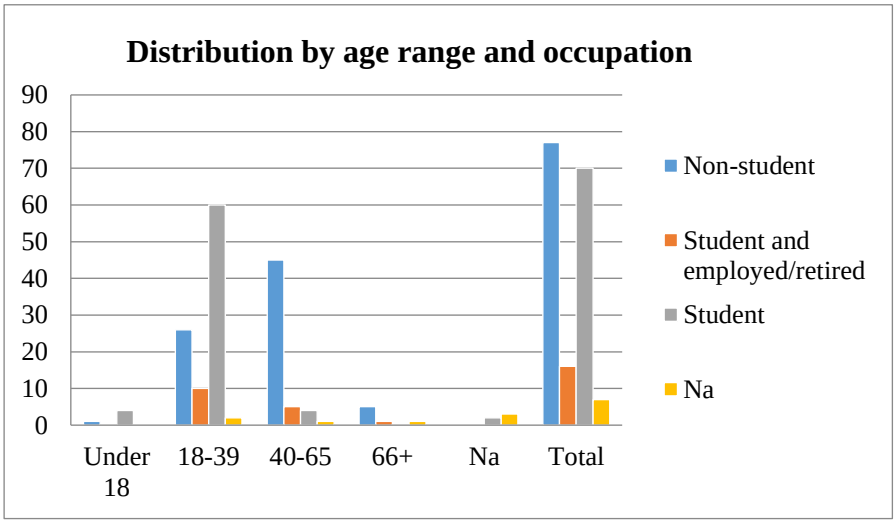
Table 10: Distribution of survey-completing CSs by age range and occupation

Age range	Non-student	Student and employed/retired	Student	Na	Grand Total
18-39	26	10	60	2	98
40-65	45	5	4	1	55
66+	5	1		1	7
N/A			2	3	5
Under 18	1		4		5
Grand Total	**77**	**16**	**70**	**7**	**170**

Figure 7: Chart of survey-completing CSs by age range and occupation



Looking at the student/non-student status of our citizen scientists by gender, no fundamental differences can be observed between the participation of men and women, as shown in Table 11 and Figure 8 overleaf. An equal number (eight) of male and female respondents stated that they study and work at the same time. In the group of students, the ratio is slightly in favour of men with 37 male and 31 female respondents, while the number of women exceeds that of men by ten among non-students. This is in line with the above finding that women over 40 are more likely to be available for citizen science.

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Table 11: Distribution of survey-completing CSs by gender and occupation

Gender	Non-student	Student and employed/retired	Student	Na	Grand Total
Female	42	8	31	5	86
Male	32	8	37	1	78
Other			1		1
N/A	3		1	1	5
Grand Total	**77**	**16**	**70**	**7**	**170**

Figure 8: Chart of survey-completing CSs by gender and occupation

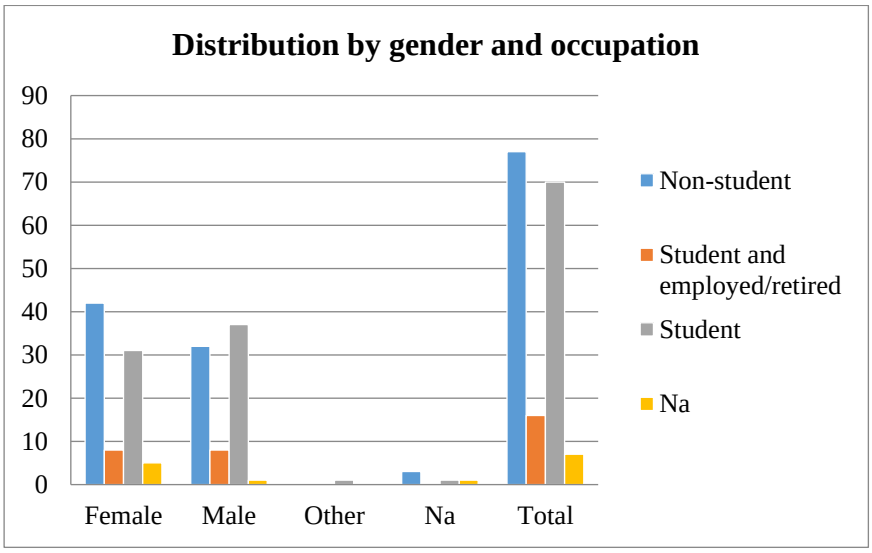

Table 12 overleaf shows the employment status of the 93 respondents whose answer to the question regarding their occupation was applicable and who did not report themselves as being students only. The data are broken down by gender and mirror a balanced participation of males and females among the employed. However, it is striking that **while the majority of male participants work full-time, part-time employment is much more common among our female citizen scientists. Among those who are looking for work, there is also an overwhelming majority of women.**

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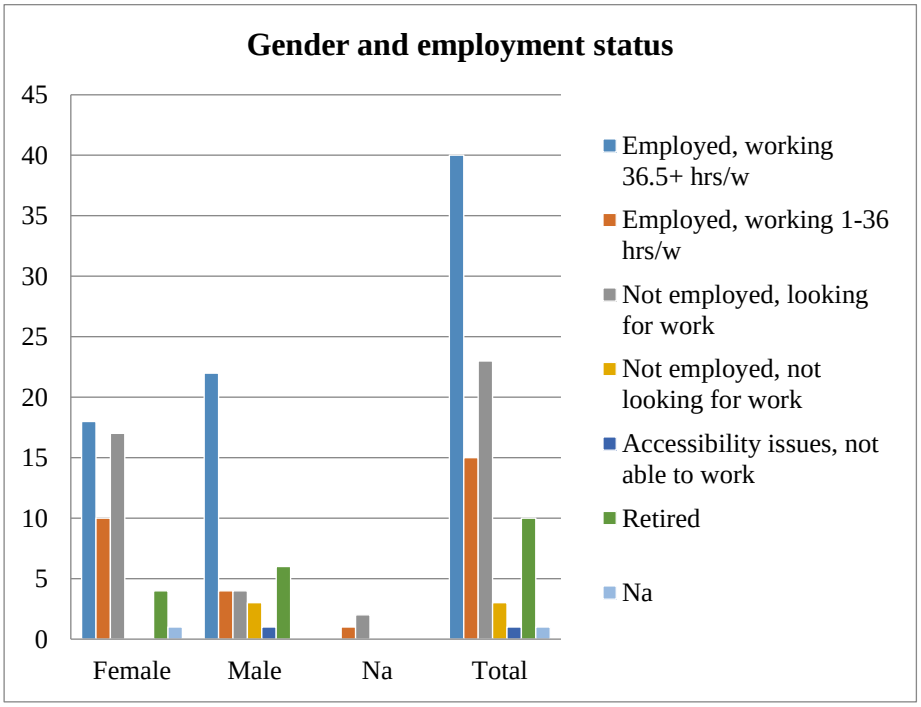
Table 12: Distribution by employment status and gender of those survey-completing CSs who reported being non-student or student and employed/retired

Employment status	Female	Male	Na	Grand Total
Employed, working 36.5+ hrs/w	18	22		40
Employed, working 1-36 hrs/w	10	4	1	15
Not employed, looking for work	17	4	2	23
Not employed, not looking for work		3		3
Accessibility issues, not able to work		1		1
Retired	4	6		10
N/A	1			1
Grand Total	**50**	**40**	**3**	**93**

Figure 9 gives a visual display of the gender and the employment status of those survey-completing CSI-COP citizen scientists who are either non-students or study and work (or are retired) at the same time.

Figure 9: Chart of gender and employment status of those survey-completing CSs who reported being non-student or student and employed/retired



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3.4.2 Accessibility

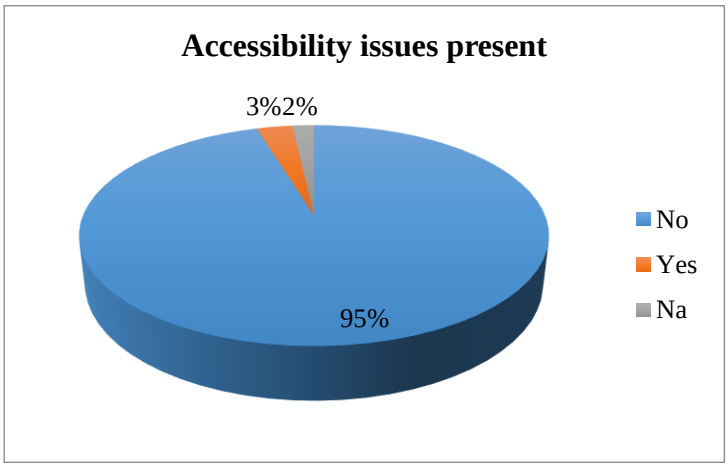
An accessibility issue is any barrier that makes it difficult or impossible for a person with a disability to equally access a product, a service or a piece of information. In the field of ICT, accessibility issues may imply difficulties navigating, or engaging with the content on a website due to low-vision, color blindness or any other visual impairment. In Survey 1 of the CSI-COP project, we asked the following question in order to get an answer on whether the respondents struggle with any such issue: "Do you regard yourself as having some accessibility issues; for example, use text-to-speech software due to a visual impairment?"

Five of our 170 respondents answered yes to this question, which means that their proportion is 3%. Another three respondents chose not to answer the question about accessibility. One hundred and sixty-two of our citizen scientists do not regard themselves as having accessibility issues. These numbers are presented in Table 13 and Figure 10 below.

Table 13: Number of survey-completing CSs with accessibility issues

Accessibility issues present	Total
No	162
Yes	5
N/A	3
Grand Total	**170**

Figure 10: Pie chart of percentage of survey-completing CSs with accessibility issues



Disability is one of the most significant factors in terms of social exclusion. In a study cited in CSI-COP deliverable report D2.2 "Guidelines for Diverse Citizen Science Recruitment", individuals with disabilities were five times more likely to report dissatisfaction with their lives than their non-disabled counterparts, and a majority of those surveyed said that lack of a full social life was a reason for this dissatisfaction (Steinfeld et al., 2009).

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West and Pateman (2016) confirm that people with disabilities, together with people of minority ethnic origin, unemployed and low-income people tend to be under-represented in voluntary projects such as environmental monitoring schemes, particularly where there is financial implication for the participation. In relation to accessing digital technologies, along with the poor and the elderly, the majority of people on the losing side of the digital divide are composed of those who are disabled (Büchi et al., 2016). Taking all these factors into account, it is very rewarding to the CSI-COP team that five people with accessibility issues were willing to become citizen scientists in our project.

3.4.3 Internet access

As explained in detail by Hinsenkamp et al., 2020, several different aspects of individuals' digital life can be explored to describe their level of digital inclusion. In CSI-COP we tried to get the most informative answers possible about our citizen scientists' digital life without having to ask them too many questions that might discourage them from sharing information with us. Since the digital divide is most commonly defined as the gap between those individuals and communities that have access to new forms of information technology (e.g. computers and their networks, mobile telephony, digital television and access to the Internet) and those that do not (Molinari, 2012; van Dijk, 2006), we first tried to find out whether our volunteers had access to the Internet through their own connection (e.g. broadband at home or at work, or mobile Internet), or they used public WIFI access when using the Internet.

As Table 14 shows, **the vast majority of respondents (159; 93%) have access to the Internet through their own connection**. Only two of them reported using public access, e.g. in libraries, cafés, etc. Nine of our respondents chose not to answer the question about Internet access in the pre-participation survey.

Table 14: Distribution of survey-completing CSs by mode of Internet access

Internet access	Total
Have access to own Internet connection	159
Use public access	2
N/A	9
Grand Total	**170**

Figure 11 also shows the number of survey-completing citizen scientists with their own Internet connection, as well as the number of those who use public access and those who did not specify the mode of their Internet access.

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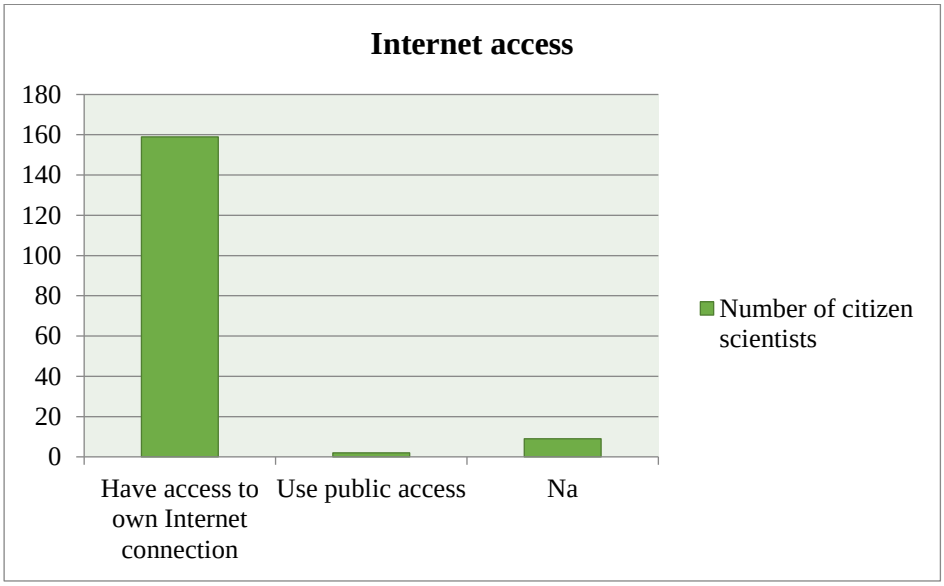
Figure 11: Chart of survey-completing CSs by mode of Internet access



Digital connectivity is considered a social right in the European Union (European Commission, 2019). ICTs have become widely available to the general public in Europe, both in terms of accessibility as well as cost (Eurostat, 2019). Broadband is by far the most common form of Internet access in all EU Member States, and basic broadband became available to practically all homes in the EU by 2018 (European Commission, 2019).

Therefore it is not surprising that almost all of the respondents who were willing to tell us about the mode of their Internet access have their own Internet connection, especially if we also take into consideration the topic of the CSI-COP project, which makes it likely that those who wish to participate have access to and at least basic knowledge of ICT.

3.4.4 Internet usage

In a broader context the digital divide means the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard not only to their opportunities to access information and communication technologies (ICTs), but to their use of the Internet for a wide variety of activities, as well (OECD, 2001). Having sufficient motivation, physical access and skills to apply digital media are necessary but not sufficient conditions of actual use, yet measuring computer and Internet access in survey questions often conflates possession or connection with use or usage time (van Dijk, 2006).

Sensitive of the above, we included a number of questions about Internet usage in Survey 1. Respondents were asked about their purpose of using the Internet (work, leisure, both). **One hundred and sixteen (68%) out of 170 survey-completing citizen scientists self-reportedly use the Internet for both work and leisure**. In the case of students, of course, their studies should be considered work. Internet usage is not part of the work of 25 respondents; for them it is only a leisure activity. Nineteen respondents use the Internet only as part of their daily work. One of our citizen scientists only uses the

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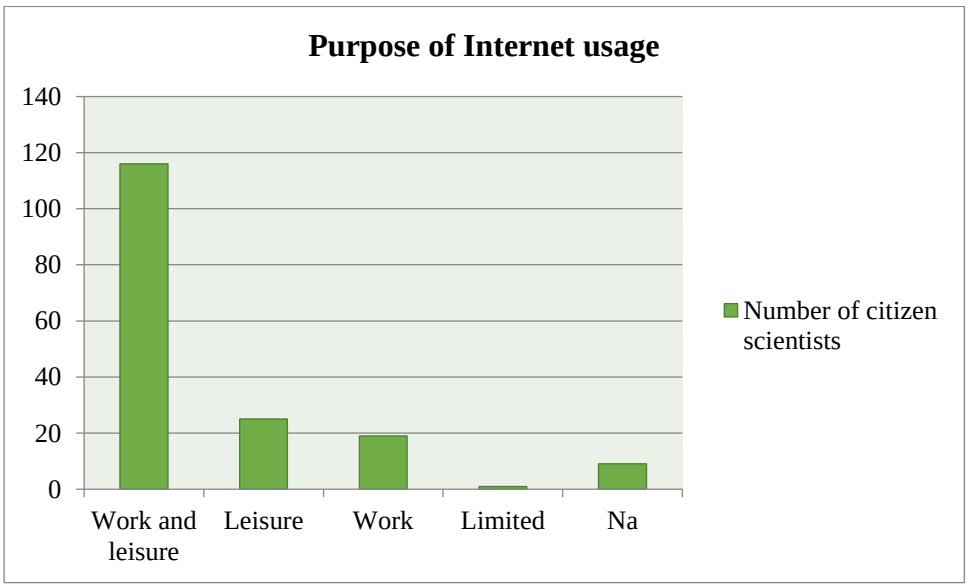
Internet in a limited way and nine of them preferred not to say the purpose of their Internet usage. These numbers can be seen in Table 15 and Figure 12.

Table 15: Distribution of survey-completing CSs by purpose of Internet usage

Purpose of Internet usage	Total
Work and leisure	116
Leisure	25
Part of daily work	19
Use the Internet in a limited way	1
N/A	9
Grand Total	**170**

Figure 12: Chart of survey-completing CSs by purpose of Internet usage



Furthermore, we asked our citizen scientists about the frequency of their Internet usage. We defined the following categories from which the respondents could select the most appropriate one: Daily, 2-3 times a week, Once a week, Less than once a week, Never, and Prefer not to say. As Table 16 shows, **an overwhelming majority of our volunteers (158; 93%) use the Internet daily**. Seven of them use it 2-3 times a week and two of them less than once a week. None of the respondents reported using the Internet once a week or never. Three individuals did not share with us the frequency of their Internet usage.

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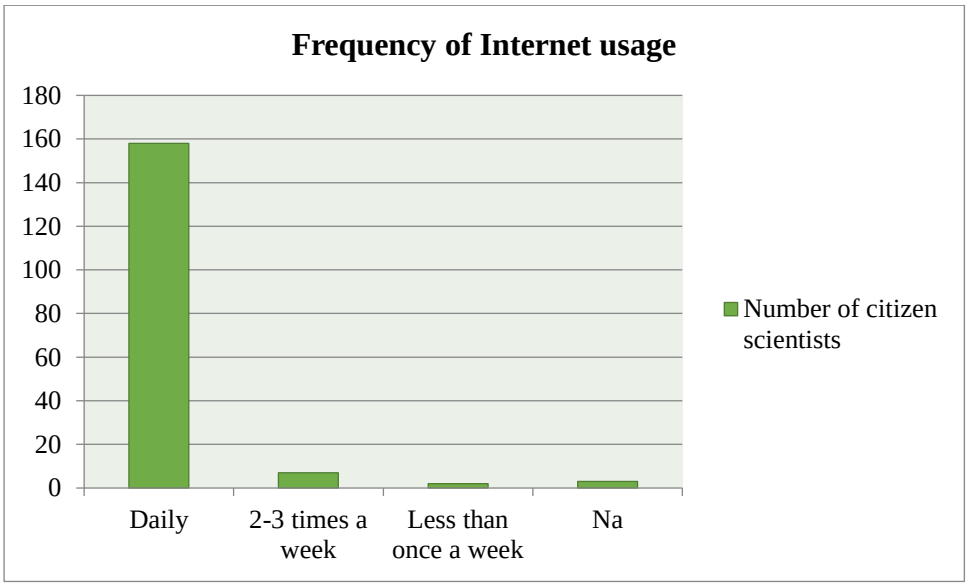
Table 16: Distribution of survey-completing CSs by frequency of Internet usage

Frequency of Internet usage	Total
Daily	158
2-3 times a week	7
Less than once a week	2
N/A	3
Grand Total	**170**

By showing most of the respondents' self-reported daily use, Figure 13 demonstrates that the frequency of Internet usage is even less balanced among the citizen scientists than the purpose of it.

Figure 13: Chart of survey-completing CSs by frequency of Internet usage



Since the citizen scientists engaged in the CSI-COP project investigated the degree of online tracking both on different websites and in smartphone applications, our project team was also curious about how often they use apps on their computers and mobile devices. In Survey 1 we asked all respondents to state whether they use apps regularly on desktops or laptops (e.g. to authenticate access to work tools) and on mobile devices (e.g. to monitor their health status), or they use them only rarely, or not at all. Those who reported using apps regularly were then asked to select any number of frequently used application types from those listed in the survey.

In line with the high number of those survey-completing citizen scientists who use the Internet on a daily basis, **the number of those who regularly use apps on their desktops or laptops and on their**

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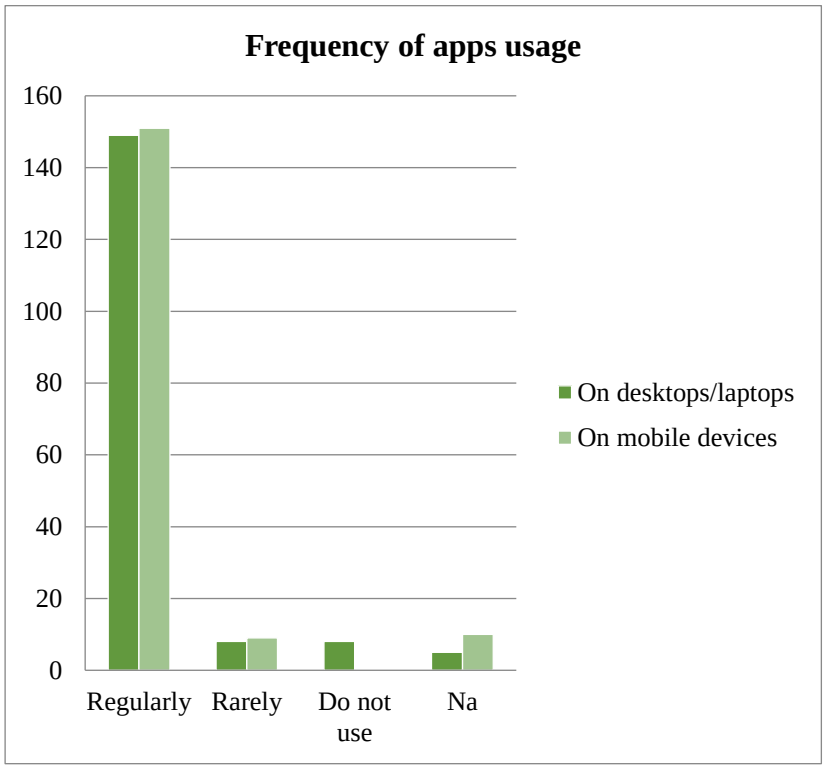
mobile devices is also very high among the respondents: 149 and 151 respectively. Only eight and nine of the respondents reported using apps rarely on desktops/laptops and mobile devices respectively, while another eight respondents do not use apps on desktops and laptops at all. Five and ten of our citizen scientists chose not to share the frequency of their apps usage on desktops or laptops and on mobile devices, respectively. It is worth noting that none of the respondents reported not using apps on their mobile devices at all. These figures are shown in Table 17.

Table 17: Distribution of survey-completing CSs by frequency of apps usage on desktops/laptops and on mobile devices

Frequency of apps usage	On desktops/laptops	On mobile devices
Regularly	149	151
Rarely	8	9
Do not use	8	
N/A	5	10
Grand Total	**170**	**170**

The visual representation of the above data depicts even more visibly the slightly higher number of those who use apps on their mobile devices among the respondents who reported using apps regularly or at least rarely (see Figure 14).

Figure 14: Chart of survey-completing CSs by frequency of apps usage on desktops/laptops and on mobile devices



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Regarding the types of apps used, we listed the following types in Survey 1: Work (e.g. Microsoft Teams, Zoom, etc.) – only on desktops or laptops, Entertainment (e.g. Netflix, YouTube, etc.), News (e.g. BBC News, Google News, etc.), Education (e.g. Duolingo, Coursera, etc.), Games (e.g. Brawl Stars, Candy Crush, etc.), Lifestyle (e.g. Headspace, Clue, etc.), Other (e.g. e-banking, transport apps, etc.).

Table 18 presents the types of apps and the number of citizen scientists who self-reportedly use them. It is worth noting once again that more than one type could be selected from the list. **In the case of desktops and laptops, work apps are the most used, followed by entertainment and news apps.** Education, games and lifestyle apps are also relatively popular among the respondents, while other types of apps are a bit behind in terms of use. The order is similar for apps on mobile devices, with small differences. **News and entertainment apps are the most used types on mobile devices**, but lifestyle, games and non-specified other types of apps are much more popular than in the case of desktops or laptops. Educational applications are used to the same extent in both cases.

Table 18: Types of apps used by survey-completing CSs

Type of app used	No of users on desktops/laptops	No of users on mobile devices
Work	110	-
Entertainment	98	83
News	78	94
Education	61	62
Games	53	64
Lifestyle	47	68
Other	27	73
N/A	2	4

According to earlier findings, socio-economic factors may present barriers to social and digital participation, and some clear patterns can indisputably be observed across social groups regarding the frequency of volunteering in general and citizen science participation in particular (Hinsenkamp et al., 2020).

In terms of Internet access and usage, the data presented in this report show a relatively unified picture of our citizen scientists with the vast majority of them having access to their own Internet connection and using the Internet frequently and extensively, for different purposes. This can be explained by the fact that due to its topic, interest in the CSI-COP project presupposes a relatively high level of computer literacy, skills and practice on the part of citizen scientists. In light of this, it is an interesting result of the project that our team managed to reach and engage some members of the general public who use public WIFI access to connect to the Internet; use the Internet only in a limited way; relatively less often, or despite having some kind of accessibility issues. As for other socio-economic factors such as

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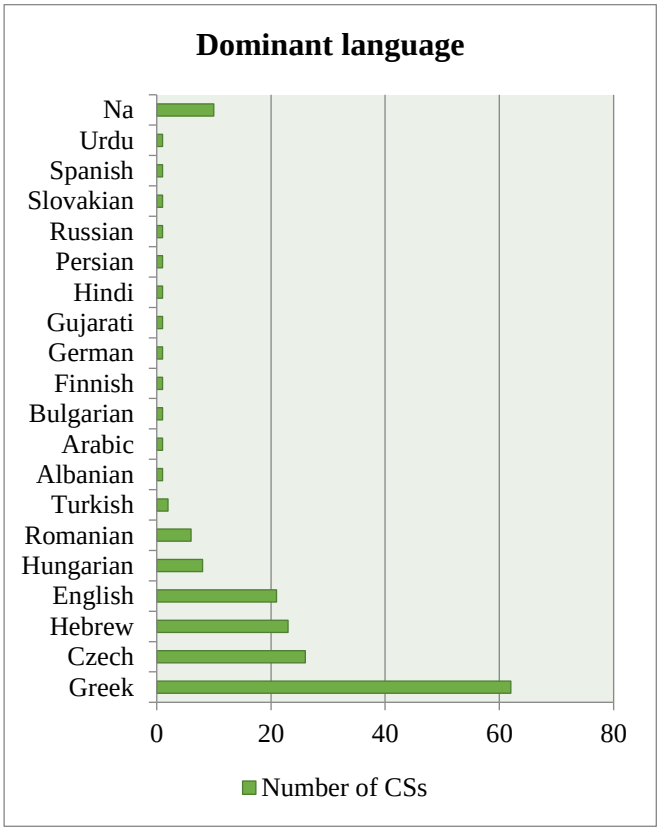
occupation or employment status within the group of non-students, our recruitment activities resulted in engaging a particularly diverse group of citizen scientists.

3.5 Geographical location

The recruitment of citizen scientists was carried out by eight partner institutions in the CSI-COP consortium based in the United Kingdom, Greece, the Czech Republic, Israel, Hungary, Spain, Germany, and Finland. IB, the partner in Germany also engaged people in Romania, one of the languages in which the MOOC 'Your Right to Privacy Online' was translated. Nevertheless, our goal from the beginning was to engage a diverse group of citizen scientists, not only in terms of their socio-economic background, but also in terms of their country of origin. For this reason, in Survey 1, we chose to ask our respondents about their dominant language or mother tongue, instead of their country.

As Figure 15 shows, ten of the 170 respondents refused to answer this question, but the remaining 160 answers reveal a very varied picture of CSI-COP's citizen scientists. Of the **19 different languages** listed below, each one has been reported by at least one survey-completing citizen scientist as their dominant language or mother tongue. The following five languages are the most spoken by our survey-completing citizen scientists as a first language: **Greek, Czech, Hebrew, English and Hungarian.**

Figure 15: Bar chart of survey-completing CSs by dominant language



Survey 1 also contained a question about the respondents' type of geographical location within an unidentified country they either lived or studied at the time of CSI-COP engagement. The proportion of urban and rural residents can be seen in Table 19 and Figure 16 below. The data show **an**

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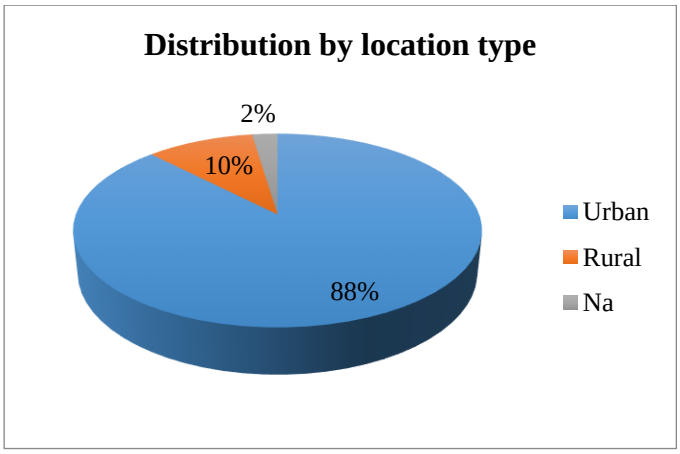
overwhelming majority (149; 88%) of citizen scientists living in urban areas, that is, in bigger towns and cities. Seventeen respondents (10%) reported being rural residents, that is, living in villages below the population of 2000. Four survey-completing citizen scientists chose not to reveal the type of their geographical location.

Table 19: Distribution of survey-completing CSs by geographical location type

Location	Total
Urban	149
Rural	17
N/A	4
Grand Total	**170**

Figure 16: Pie chart of percentage of survey-completing CSs by geographical location type



As our previous research showed, despite the fact that the gap in European countries is continuously closing, Internet access is still somewhat lower in rural areas than in bigger cities and towns, accompanied by lower digital skills (European Commission, 2019). Compared to other countries, the divide is relatively strong in two of CSI-COP's partner countries: Greece and Hungary (Eurostat, 2020). Difficulty of terrain and the existence of legacy communication infrastructure are among the most important factors affecting the availability, and consequent take-up of broadband services (OECD, 2018).

The literature studied by the authors for WP2 Task 2.2 of CSI-COP describe a tendency toward greater levels of volunteering in rural areas and smaller towns, cities and villages than in larger metropolitan areas in Western Europe. In contrast, higher levels of volunteering can be found in urban areas and in big cities than in rural areas in Greece, Hungary and some other Eastern European countries (GHK, 2010).

Since 40% of CSI-COP's survey-completing citizen scientists were recruited by the Greek consortium partner, it is possible that the above detailed factors are reflected in our data on the geographical location

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type of our respondents and at the same time account for at least part of the large difference between the proportion of urban and rural residents.

The tables, charts and figures in this and previous sections detail different demographic and socio-economic characteristics of the 170 survey-completing citizen scientists engaged in the CSI-COP project. In the final section we summarise our findings and point to future work.

4 Conclusions and Future work

Accessing diverse groups that are often not included in mainstream science can help in appreciating science and understanding the work of scientists. The general public contributing to science can establish personal relevance building a common ground between scientists and volunteers. Nonetheless, one of the key challenges of citizen science projects is the involvement of citizen scientists representing a broad spectrum of society. The demographic data of the studies that our team managed to unearth in the earlier research phase, in CSI-COP's WP2, showed a unified picture about the demographic distribution of the participants in previous citizen science projects in developed countries. In the vast majority of these projects, participants are typically white, middle-aged males, with a high level of education and previous involvement in similar scientific activities. Participation in citizen science projects with ICT-related topics is even more likely to be unbalanced (Hinsenkamp et al., 2020). CSI-COP's aim has been to involve a diverse cohort of citizen scientists regardless of age, gender, socio-economic background, or geographical location type, in order to achieve inclusivity, which is not typical in the world of citizen science.

In addition to the lack of representation, a lack of data and research on the detail of who takes part in citizen science projects can also be observed throughout the relevant literature. CSI-COP on the other hand has a mission to make citizen scientists the real champions for online privacy, and part of this endeavour is to find out and present who our citizen scientists are.

To this end, for this deliverable report D4.3 from task T4.3 we presented findings from one hundred and seventy completed surveys by individuals who had availed themselves of the opportunity to gain free informal education. This resource provided members of the public gain new knowledge about data protection, informed consent and rights to privacy online. This was then applied to investigate website and apps with respect to transparency concerning the different types of tracking technologies embedded beneath. This task contributed to the project's expected impacts including scientific literacy and education, ethical and responsible research, public engagement and achieving gender equality (see Table 20).

Table 20: Indicators to measure CSI-COP impact

Dimension	MoRRI Indicator	UN SDG Indicator	CSI-COP Indicator for impact
Gender Equality (GE)	GE2	Goal 5	Balanced recruitment of male, female and other gender citizen scientists
Science Literacy	SLSE2		SLSE2: Responsible Research and Innovation (RRI) Training

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and Education (SLSE)	SLSE3 SLSE4		SLSE3: Science communication through informal education into GDPR SLSE4: Citizen science engagement
Ethics (E)	E1		Ethics at the level of the University and other partners in CSI-COP consortium
Public Engagement (PE)	PE2 PE3 PE4 PE5		PE2: Policy-oriented engagement with science (secondary data) PE3: Citizen preferences for active participation in S&T decision making (secondary data) PE4: Active information search about controversial technology (secondary data) PE5: Public engagement performance mechanisms at the level of research institutions
Open Access (OA)	OA1		Open Access Literature and to CSI-COP's Innovation
Quality Education		Goal 4.4	Contribute to goal "By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship"
Partnership for Goals		Goal 17.7	Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

As detailed in previous sections, the proportion of survey-completing citizen scientists aged between 18 and 39 (98; 58%) exceeds that of those aged between 40 and 65 (55; 32%). CSI-COP engaged more females (86; 50%) than males (78; 46%) as citizen scientists. With regard to occupation, non-students are the most numerous among the CSI-COP citizen scientists' respondents (77; 45%), followed by students (70; 41%). The majority of non-students (31 respondents) are working full-time, while 23 of them are not employed, but looking for work. Five (3%) of the 170 survey-completing citizen scientists reported having some kind of accessibility issues. One hundred and fifty-nine (93%) of the respondents have access to their own Internet connection. One hundred and sixteen survey-completing citizen scientists (68%) self-reportedly used the Internet for both work and leisure and 158 (93%) used it every day. CSI-COP recruited citizen scientists disclosed 19 different languages as their dominant language or mother tongue. The majority of citizen scientists (149; 88%) live in urban areas, that is, in bigger towns and cities.

The final report from the CSI-COP project (deliverable D6.6) will present a detailed assessment of the project's results against the expected impacts.

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Appendix: Pre-participation survey (Survey 1)

The table below presents the questions in the pre-participation survey (Survey 1) put to individuals completing CSI-COP's free informal education course 'Your Right to Privacy Online'. The questions do not seek any personal data, or any data that would identify them.

Age range: please circle one from the range	18-39; 40-65; 66+; Prefer not to say
Gender: please select one	Female; Male; Intersex; Trans Umbrella; Other; Prefer not to say
Location: please select one	Urban – towns and cities -e.g. Patras, Coventry, London Rural – villages (below 2000 population) Prefer not to say
Languages: **1.** What is your dominant, or mother tongue? **2.** Do you speak more than one language fluently? **You can prefer not to say.**	**1.** **2.** Prefer not to say
Accessibility: Do you regard yourself as having some accessibility issues; for example, use text-to-speech software due to a visual impairment?	YES NO Prefer not to say
Work:	Student level: please select Undergraduate Postgraduate Doctoral Non-student: please select the category that best describes your employment status: Employed, working 36.5 or more hours per week

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	Employed, working 1-36 hours per week Not employed, looking for work Not employed, not looking for work Refugee seeking asylum Retired Having accessibility issues, not able to work Prefer not to say
Internet access:	Have access to own Internet connection (home or work broadband/mobile) Use public access when using the Internet Prefer not to say
Internet usage: How often do you use the Internet? Please select:	Daily 2-3 times a week Once a week Less than once a week Never Prefer not to say
Purpose of Internet use:	Use the Internet as part of daily work Use the Internet for leisure, not part of work Use the Internet for work and leisure Use the Internet in a limited way, for example, using a computer in a public library. Prefer not to say
Apps usage: Desktops and laptops	Use apps regularly, for example to authenticate access to work tools (e.g. Zoom, MS Teams). If so please provide names of some apps you use and their purpose: Work tools (e.g. Microsoft Office, etc.) Playing Games (e.g. STEAM).

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	Educational apps Lifestyle (sport, fitness, health) News Entertainment (e.g. streaming apps, such as Netflix) Other Prefer not to say Rarely use apps on desktops and laptops Do not use apps on desktops and laptops Prefer not to say
Apps usage: Mobile devices	Use apps regularly, for example, transport apps to inform on timing of next train, bus, etc. If so please provide names of some apps you use and their purpose: Playing Games Educational apps Lifestyle (sport, fitness, health): News Entertainment (e.g. streaming apps – Amazon Prime): Other Prefer not to say Rarely use apps on mobile phone or tablet Do not use apps Prefer not to say
How did you hear about the CSI-COP project?	From CSI-COP website From a university From membership to an association (e.g. Women in tech) From a citizen science platform, for example • SciStarter • Zooniverse • EU-Citizen.Science • Other citizen science platform

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	• Surfing the web Previous voluntary work From Social media, please say which platform Word-of-mouth Other
Did you complete CSI-COP's free online informal education workshop?	Yes Not yet but intend to No, prefer to wait for future face-to-face workshops if held near to where I live
If you did complete the workshop, do you intend to join the CSI-COP team as a volunteer citizen scientist?	Yes Maybe I need more information No
To send your completed 'Assess your learning' questions, your survey and for any other queries please contact Coventry University's CSI-COP team:	Please send return this completed document to Coventry University CSI-COP team members: Huma on ab7778@coventry.ac.uk or Jaimz on ad5956@coventry.ac.uk
Thank you for your time completing CSI-COP's informal education course and the survey **This document will be available in other languages soon.** **Please check CSI-COP website here: https://csi-cop.eu/**	

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