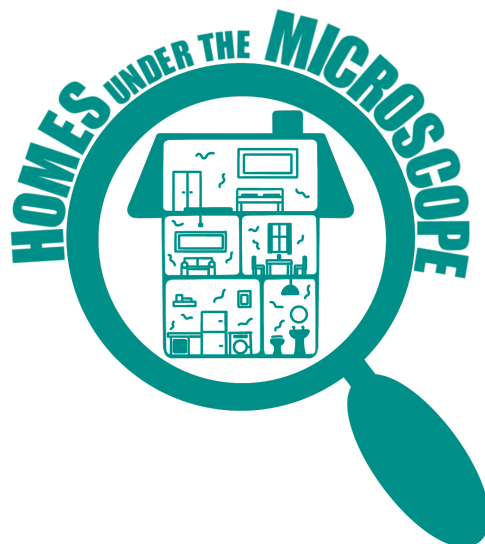


HOMEs under the microscope: Final Evaluation Report



Author: Dr Margarida Sardo, UWE Bristol

Date: June 2023

**UWE
Bristol** | University
of the
West of
England

Executive summary

HOMES was a citizen science project which aimed at investigating the presence of airborne microplastics in people's homes. The project took place in two stages, Phase 1 was the Pilot in Bristol and Phase 2, the roll out in Bristol and Bradford. Citizens placed passive samplers in their homes, using low-cost microscopes to see and take pictures of their samples. They then used machine vision approaches to characterise their own samples by size/shape/colour etc, at home. The research team undertook confirmatory analyses allowing citizens to see what types of plastic (if any) were present in their samples, which helped the team build an understanding of airborne microplastic generation at home.

Across the pilot and the roll out, the project engaged directly with **145 citizen scientists**, mostly **white, highly educated women**. The HOMEs team made a considerable effort in targeting underrepresented groups (by working with the Bristol Green Capital Partnership, attending specific events, etc.) but despite all the efforts, this was the end-sample in terms of demographics. The main motivation to take part was to **contribute to research**, as reported by the participants. There was an overwhelmingly high level of enjoyment reported by the participants. Overall, citizens taking part have seen an **improvement in their knowledge** with the biggest increase of knowledge in **airborne microplastic knowledge**.

The project team was made of mostly researchers with little or no experience of citizen science projects. By the end of the project, **most team members had gained new skills** (such as managing people, improved communication skills and increased knowledge of citizen participation) and were able to identify what worked well (e.g., co-creative element and easy topic to engage citizens with) and what didn't work so well (limited time to analyse samples writing instructions for citizens). Overall, the team reported **high levels of enjoyment of the project**.

We hope this evaluation report proves useful to other researchers, practitioners and citizen scientists working on citizen science projects.

Contents

Executive summary	2
Contents	3
1. THE HOMES PROJECT	4
2. EVALUATION STRATEGY	5
2.1 Ethics Approval and Participant Consent	5
2.2 Evaluation Methods	5
3. FINDINGS	6
3.1 Pilot citizen scientists	6
3.1.1 Motivations	7
3.1.2 Overall experience	7
3.1.3 Knowledge improvement	8
3.1.4 Further involvement	9
3.2 Roll out citizen scientists	10
3.2.1 Motivations	11
3.2.2 Overall experience	11
3.2.3 Knowledge improvement	12
3.3 HOMEs team	13
3.3.1 Initial interviews	13
3.3.2 Final interviews	15
3.4 Project Communication and Dissemination	16
Looking ahead	17
Appendix 1 - Final online survey (Pilot participants)	18
Appendix 2 - Final online survey (Roll out participants)	20
Appendix 3 – Initial interview (HOMEs team)	22
Appendix 4 - Final interview (HOMEs team)	23

1. The HOMEs Project

Homes Under the Microscope (HOMEs) was a multidisciplinary project that brought scientists, participants and the textile industry together to develop a new way to measure microplastics in the home. An innovative citizen science project, HOMEs looked at the presence of airborne microplastics in people's homes.

The project aimed to count how many airborne microplastic particles there were in a wide range of different houses. It also examined what they were made of, which help understand where they come from. Airborne microplastic particles are tiny plastic fibres that are given off by clothes and other materials and are present around us every day.

Citizens placed passive samplers in their homes, using low-cost microscopes to see and take pictures of their samples. They then used machine vision approaches to characterise their own samples by size/shape/colour etc, at home. The research team undertook confirmatory analyses allowing citizens to see what types of plastic (if any) were present in their samples, which helped the team build an understanding of airborne microplastic generation at home.

HOMEs started with Phase 1, which was the Pilot in Bristol; followed by Phase 2, the roll-out of the piloted and refined sampling, analysis and reporting approaches to Bristol and Bradford.



HOMEs received funding from the Biotechnology and Biological Sciences Research Council, through the UK Research and Innovation (UKRI) Citizen Science Collaboration Grant, under Reference BB/V012584/1.

2. Evaluation Strategy

Evaluation was crucial to understand if the HOMEs ambitions were achieved and to critically reflect on the project. A variety of methods was used to evaluate the project overall. The evaluation methodology was designed to collect high quality data in an easy and straightforward way that works for all the citizens scientists involved and the project team. The evaluation focused on collecting feedback from both **citizen scientists** and **researchers** within the project team. We aimed to understand the initial expectations and motivations to take part, follow the journey of those two groups and reflect on the learnings and any new skills.

2.1 Ethics Approval and Participant Consent

Ethics Approval was achieved through an application to the UWE Bristol Faculty Research Ethics Committee (REF No: FET.21.07.064). Informed Consent was achieved before taking part in all evaluation activities. All activities in this project have been determined as low risk to the researchers and participants. The main risks identified for participants are found in the time commitment involved, and in providing personal data. As such, all participants were warned about these commitments, with appropriate informed consent measures taken to ensure the participants were aware about their involvement before volunteering.

2.2 Evaluation Methods

A variety of methods was used to monitor and evaluate HOMEs. Methods were selected based on how appropriate they were for the given audience and how practical they were to be used.

Online surveys

Online surveys are a convenient method to gather participants' views and thoughts about events and activities. By using online surveys, we would not take away the participants' attention from the activities they are engaging with. In addition, online surveys take away the pressure of being interviewed, making participants more comfortable and eliminating interviewer-bias.

The online surveys were designed to be short, quick and easy to complete and mostly included closed questions. Closed questions present the respondents with a list of options and do not discriminate against less responsive participants. Open-ended questions allow participants to provide answers in their own terms and can be included where more reflective answers are needed, but should ideally be kept to a minimum, since they tend to have a lower response rate.

Surveys were set up online, using Qualtrics¹ and distributed to pilot and roll-out participants, at the end of their engagement with the project.

Copies of all surveys are included in the appendices (Appendix 1 and 2).

Interviews

The interviews were designed as semi-structured, and the schedule included open-ended questions allowing participants to provide answers in their own terms. Interviews with HOMEs researchers took place at two points in time: before the pilot and again toward the end of the project. For budget reasons, these were conducted via email and aimed to explore expectations, as well as

¹ <https://www.qualtrics.com/>

understand what worked well, what did not work so well, any challenges, barriers, new learnings and skills acquired.

Copies of all interview schedules are included in the appendices (Appendix 3 and 4).

3. Findings

3.1 Pilot citizen scientists

As an initial step in taking part in the project, participants were asked to register via an online form, which asked for standard demographics and initial motivations to take part. A **total of 35 citizens** took part in the pilot. In terms of demographics, **69% (N= 24) of HOMEs participants were female** and 31% (N= 11) were male. Women might predominately have been the ones signing up for the project, but we suspect, from conversations with pilot citizens, that the activity was done as a family, with man and/or children involved as well.



Figure 1 – Pilot participants using the HOMEs kit.

The project was able to recruit **participants of all age ranges** except 18-24 (Figure 2), however the category 35-49 was noticeably higher with 49% (N= 17) participants. There was **no diversity in terms of ethnicity**, participants were overwhelmingly White (91%; N=32) with just one (3%) Black / African / Caribbean / Black British participant and two (6%) Mix / Multiple ethnic groups citizens.

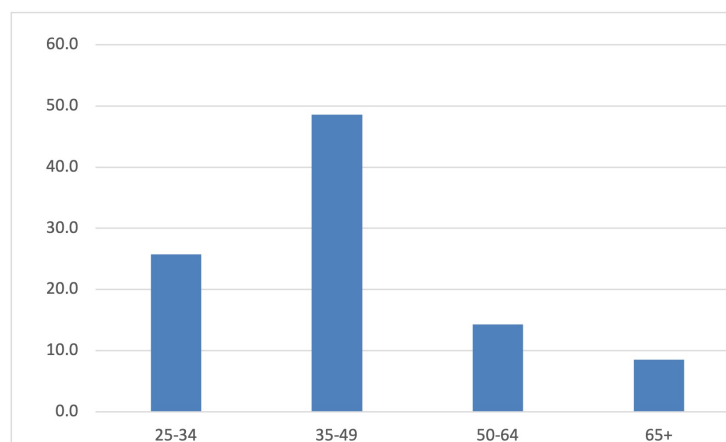


Figure 2 – Age categories of HOMEs pilot participants.

Concerning education (Figure 3), HOMEs **participants were highly educated** with 40% (N= 14) holding an undergraduate degree, 26% (N= 9) were educated at postgraduate degree and 20% (N=7)

had a doctoral degree. This demographic trend is reflected in the type of job participants had, as showed in Figure 4.

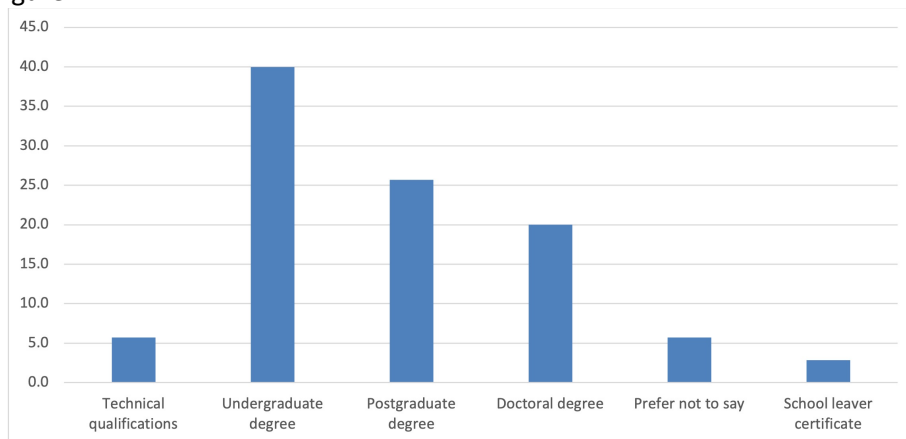


Figure 3 – Education range of HOMEs pilot participants.

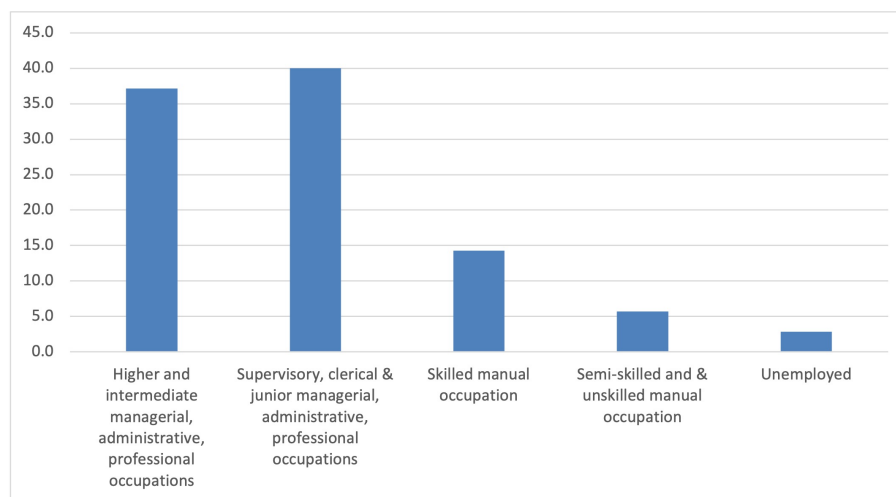


Figure 4 – Job categories of HOMEs pilot participants.

Pilot participants were asked to feedback on their experience at the end of their engagement with the HOMEs project. A link to the online survey was distributed to 28 citizens, and 14 completed surveys were received (**50% return rate**).

3.1.1 Motivations

The most popular motivations to take part in the HOMEs project were **contributing to research (15%; N=9)**; this was followed by wanting to know about microplastics in their homes (13%; N=8), concerns about the health implications (13%; N=8) or environmental implications of microplastics (13%; N=8); and interest in citizen science (13%; N=8). Also very popular were an interest in microplastics (12%; N=7) and being encouraged to take part by someone they knew (12%; N=7).

3.1.2 Overall experience

Asked to rate their experience on the HOMEs project, **79% (N=11) stated it was either excellent or good**. Some left comments (more in Figure 5) such as:

I really enjoyed taking part in the Citizen Science project. I was already aware of the issues of microplastics before taking part, my participation was a good way of

starting conversations with colleagues and friends about microplastics.
(PilotParticipant21)

On the other end of the scale, 14% (N=2) of participants felt their experience was “not good”. One other participant stated their experience was OK.



Figure 5 – Quotes from pilot participants.

Not only contributing to research as an initial motivation to take part, it was also one of the highlights for many citizens. 86% (N= 12 out of 14) of participants stated **their favourite aspect of being involved in HOMEs was contributing to research**. Most citizens indicated additional aspects as their favourites:

- Understanding microplastics in my home: 18%; N=6
- Help raise awareness of airborne microplastics: 18%; N=6
- Feeling as though I am making a difference: 15%; N=5
- Learning about microplastics: 15%; N=5



Figure 6 - Pilot participants using the HOMEs kit.

3.1.3 Knowledge improvement

Overall, **all citizens taking part have seen an improvement in their knowledge** (Figure 7). The biggest increase was in **airborne microplastic knowledge**; existing microplastic policy was the area

more citizens stated they didn't see any improvement in knowledge (not surprising as the pilot didn't target this area).

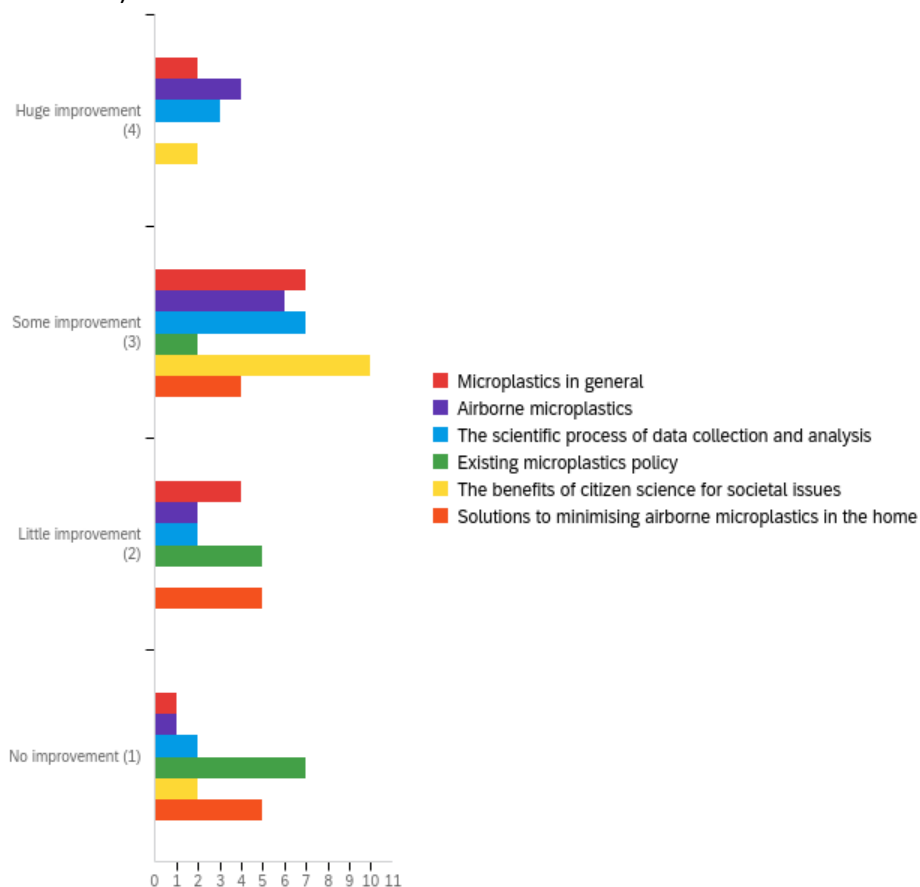


Figure 7 – How knowledge improved for HOMEs pilot participants.

3.1.4 Further involvement

Citizens were asked if there were any other opportunities they would like to get involved in while HOMEs was running (Figure 8). The most popular option was **Advocacy training** (e.g., how to speak with industry) (49%; N=4), followed by Training in scientific skills and Interactions with industry (i.e., policy workshops) each accounting for 30% (N=3) of responses.

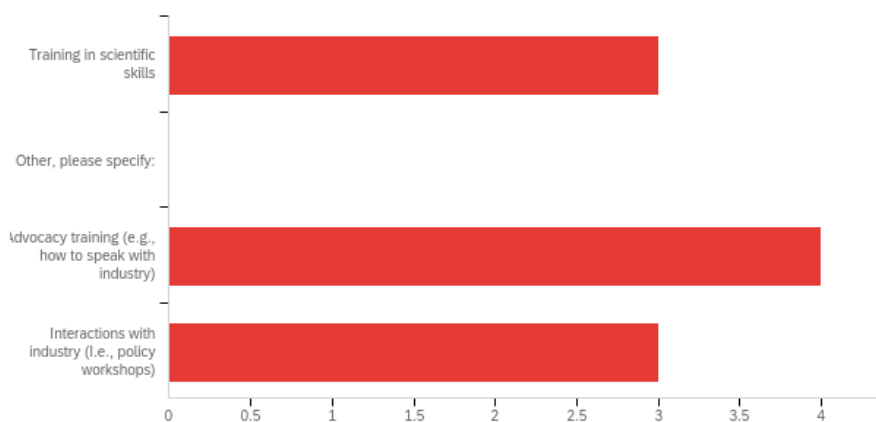


Figure 8 – Other engagement opportunities.

3.2 Roll out citizen scientists

Similar to the pilot, as an initial step, participants were asked to register via an online form, which asked for standard demographics and initial motivations to take part. A **total of 110 citizens** took part in the roll out. In terms of demographics, **81% (N= 89) of HOMEs participants were female** and 17% (N= 19) were male. As with the pilot, participants signing up mentioned they didn't always do the project on their own and often involved their partners and children. The demographics shown here only reflect those who signed up for the project and not necessarily all that were involved.

Similar to the pilot, the roll out was able to recruit **participants of all age ranges** except 18-24 (Figure 9), however the category 35-49 was noticeably higher with 52% (N= 57) participants.

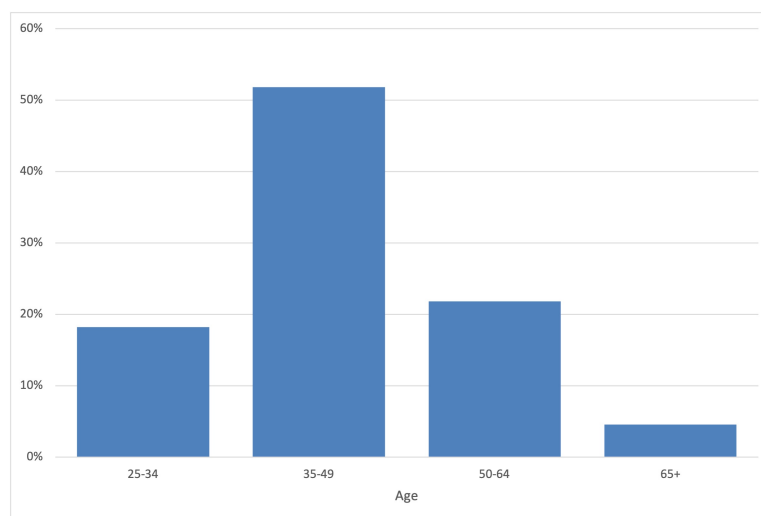


Figure 9 – Age categories of HOMEs roll out participants.

There was **some diversity in terms of ethnicity**, however participants were overwhelmingly White (84%; N=92) (Figure 10).

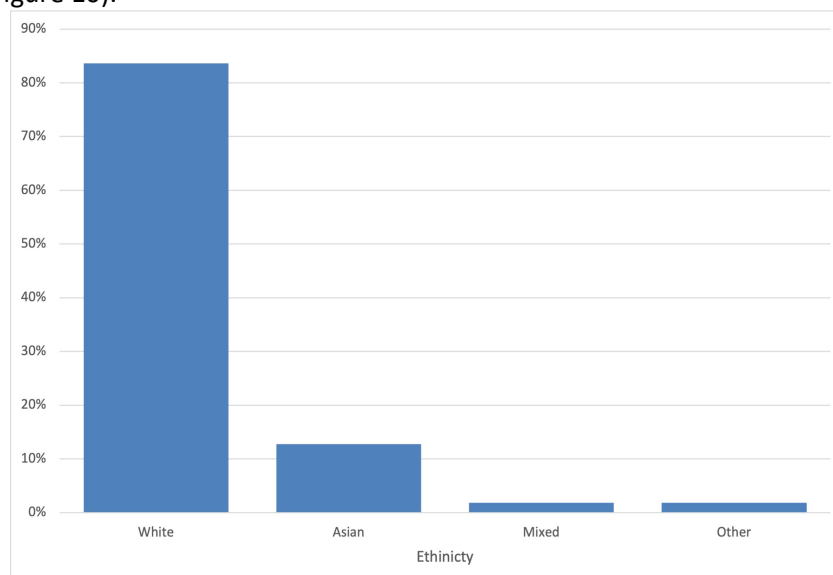


Figure 10 – Ethnicity of HOMEs roll out participants.

Regarding education (Figure 11), **roll out citizen scientists were highly educated** with 37% (N= 41) holding a postgraduate degree, 36% (N=40) had undergraduate degree. The type of job participants had is shown in Figure 12.

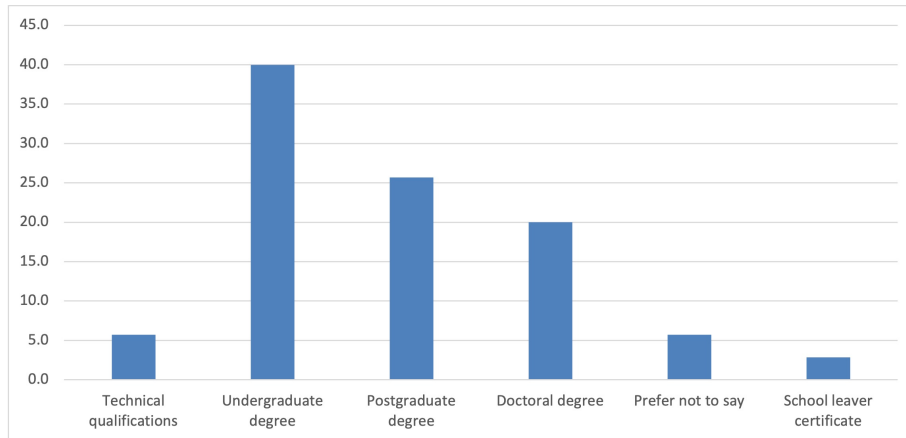


Figure 11 – Education range of HOMEs roll out participants.

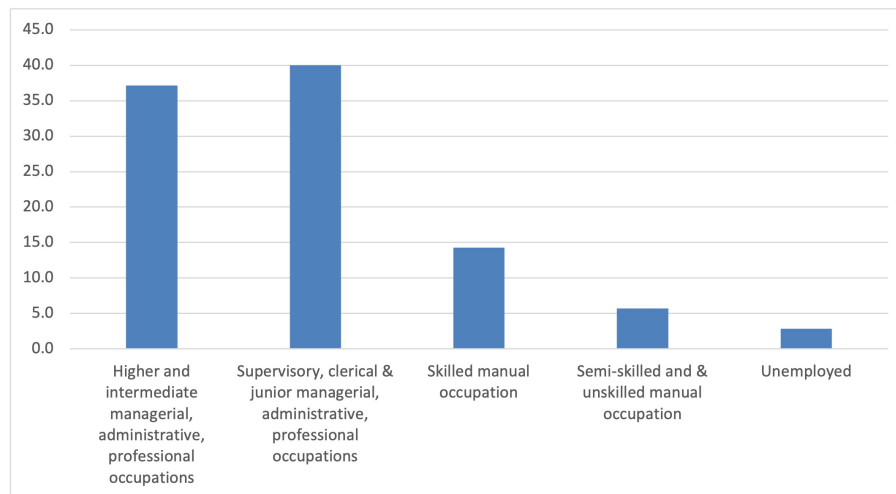


Figure 12 – Job categories of HOMEs roll out participants.

As we did in the pilot, roll out participants were asked to feedback on their experience at the end of their engagement with the HOMEs project, via an online survey. A total of 110 citizens were invited, and 36 completed surveys were received (**33% return rate**). The difference between return rate on the pilot survey and the roll out is likely down to the recruitment of highly engaged citizens (pilot) as opposed to the roll out which was target for those who we would consider to be recruited from a “less engaged” cohort.

3.2.1 Motivations

The most popular motivations to take part in the HOMEs project were **contributing to research (72%; N=26)**; this was very closely followed by wanting to know about microplastics in their homes (69%; N=25).

3.2.2 Overall experience

Asked to rate their experience on the HOMEs project, **91% (N=13) stated it was either “excellent” or “good”**. No one said it was “not good” or “poor”. This is an improvement from the pilot stage and it shows how the team have built on the learnings and improvements of those in the pilot, to make the

project more enjoyable. The favourite aspects of being involved are presented in Figure 13, with 80% (N=29) stating that “contributing to research” was their favourite aspect of being involved.

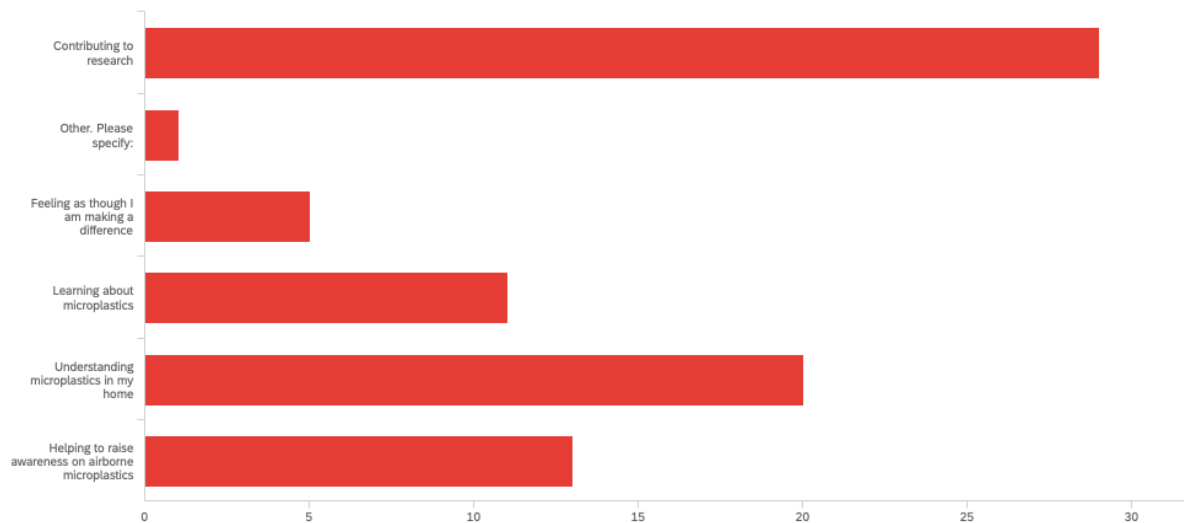


Figure 13 – Favourite aspects, roll-out participants.

3.2.3 Knowledge improvement

Similar to the pilot study, overall **citizens taking part have seen an improvement in their knowledge** (Figure 14). The biggest increase was in **airborne microplastic knowledge (53%; N=19)**; existing microplastic policy was the area more citizens stated they didn't see any improvement in knowledge **(44%; N=16)**.

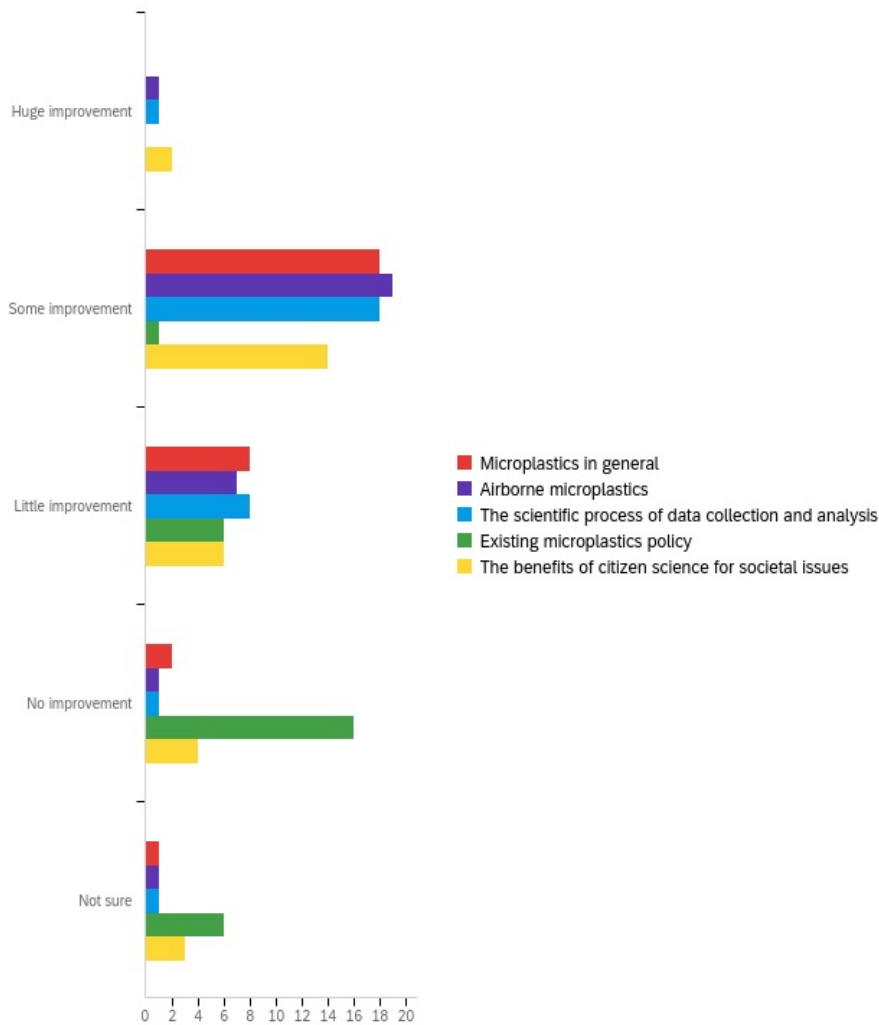


Figure 14 - How knowledge improved for HOMEs roll out participants.

3.3 HOMEs team

3.3.1 Initial interviews

Eight members of the HOMEs team were invited to participate in an email interview at the start of the project. All members completed the interview. Participants were asked about their previous experience in citizens science projects; expectations were investigated in more detail, in particular, if they anticipated gaining any new skills and what sorts of challenges they expected.

The UKRI call specifically looked for teams of researchers with little to no experience in citizen science and the HOMEs team fitted that profile, with limited experience in CS projects. Asked about their previous experience, 75% (N=6) of interviewees said they had no previous experience in citizen science and 25% (N=2) stated they had some experience. No one identified as an expert in citizen science.

I am really excited by this project. So far scientists know very little about microplastics in the home so we hope to find out lots of new stuff that will help the public, textile manufacturers, and policy makers, to make the best decisions about plastics use in the future. (Team02)

Pre-project Anticipated new skills

Improving communication skills was mentioned by several members of the HOMEs team when asked if they thought they would gain any new skills.

I expect to improve my science communication skills with the public and also to understand how citizens are able to interact with science in their domestic setting. (Team03)

Within improving their science communication skills, the following specific points were mentioned:

- How to make science accessible;
- How to communicate science to people without a science background;
- Engaging and interesting ways of communicating science;
- Translate research into a “story” that can be told in an engaging way;
- Communicating uncertainty;
- Designing and communicating classroom materials with curriculum links;
- Better understanding of citizen science.

Improved communication skills, including ways to visualise with neat graphics. Better at translating research into a “story” that can be told in an engaging way. Better at communicating uncertainty – what we know and what we don’t. Improved understanding of what motivates people to take part. (Team04)

The second most mentioned skill was **understanding citizens engagement**. Specifically, members of the HOMEs team would like to gain understanding on how citizens are able to interact with science in their homes as well as and improved understanding of what motivates people to take part in citizen science projects.

Pre-project Anticipated challenges

Challenges specific to kits:

- Designing kits and instructions
- Samples not returned (due to kits not easy to use)
- Incorrect labelling of samples (by citizens)
- Quality of images

Challenges specific to citizens and/or stakeholders:

- Anticipating the skill level of citizens
- Engaging with “hard to reach” communities / diverse uptake in participants
- Recruit a good number, type and range of stakeholders in the room to have a constructive dialogue.

Challenges specific to engagement:

- Engaging with people online
- Balancing the “plastic is bad” viewpoint from participants motivated by environmental concerns, with the views of the textile industry and the knowledge that natural fibres also have environmental / health impacts.

Other:

- Producing bottom-up recommendations

3.3.2 Final interviews

Seven members of the HOMEs team were invited to participate in an email interview at the start of the project and **five completed the interview**.

Enjoyment

Participants were asked to rate your overall enjoyment of the HOMEs project (1 being lowest enjoyment and 10 highest) and, on average, there was an enjoyment of 8.8. Asked to further explain their rating, team members added that, for example:

It was great to be part of highly interdisciplinary team which delivered this project. For example, I have not worked with Social Scientists before.
(Team03)

I've really enjoyed working on the project as it has been my first opportunity to be part of a citizen science project as well as working with the HOMES team. (Team06)

The HOMEs team highlighted elements of the project which worked well, what didn't work so well, as well as their biggest challenges:

What worked well

- Delivery in person, which allowed citizens to meet a scientist
- Easy to engage citizens on the topic
- Co-creative element
- Citizens designing the sampling packs
- Recruiting the highly engaged for the co-creation/pilot
- The HOMEs team

Collection kit worked really well and has huge potential for use in future studies. (Team04)

What didn't work so well

- More time needed to analyse samples
- Writing instructions and testing kit was hard (pre-pilot some of the instructions and logistics would have helped)
- Engagement between citizens and industry
- Sample packs were difficult to make easy to use
- Liaising with the web design company

Challenges

- Analyse sufficient fibres for each citizen (to build up a picture of the fibre type in each room)
- Recruit a range of people from different backgrounds while working in a different city
- Manage the delivery of the main strategy
- Time constrains

Participatory citizen science is really hard to do well and if we are to really involve the public in a real way in the project design then there has to be more flexibility in deadlines and budget, or it is likely that we won't have the resources to implement the suggestions that they make. (Team04)

New Skills

The team was asked if they had gained any skills through their involvement with the project:

- Better at graphics
- Better at managing people
- More experienced at communications
- More understanding of evaluation and ethics
- More knowledge around citizen participation

I'm very grateful and lucky to have worked with a really good team, pulling the project in the same direction. (Team05)

3.4 Project Communication and Dissemination

The team worked closely with partners in the development of outreach documents. These documents showcase some of the engagement with target communities; despite that effort the project had difficulty recruiting from underrepresented communities (Figure 15; Figure 16).

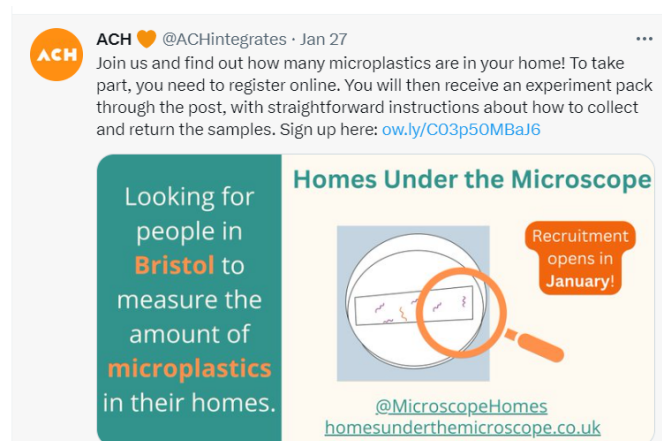


Figure 15 – ACH on Twitter. ACH is a social enterprise dedicated to building a better future for refugees and migrants in the UK.

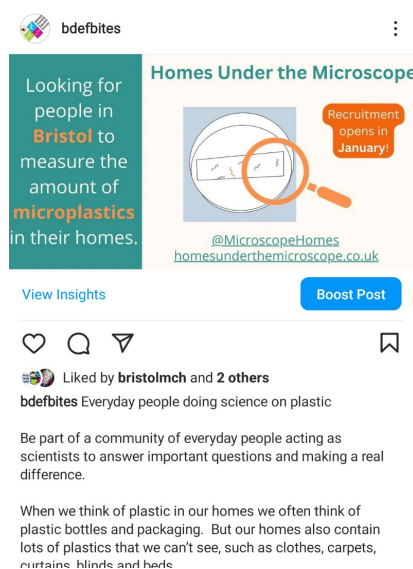


Figure 16 – A post on Instagram from Bristol Disability Equality Forum.

Table I summarizes the main outputs of the HOMEs project.

Table I – Main outputs.

Type of output	Number
Blog	3
Magazine article	2
Podcast and radio	3
Presentations (academic and non-academic)	15
School presentation	1
Videos	3

In addition, the following academic publications have emerged from the project:

- Williams, B, De Vito, L, Sardo, A M, Pringle, K, Hansen, M, Taylor, M, Lamb-Riddell, K, Laggan, S, Cox, T. Embedding citizens within microplastic research: a science and policy perspective. *Cambridge Prisms: Plastics*. **In press June 2023**.
- Sardo, A M, Williams, B, De Vito, L, Pringle, K, Hansen, M, Taylor, M, Lamb-Riddell, K, Laggan, S, Cox, T. Co-creation in citizen science: sharing learnings and good practice from the HOMEs project. *In preparation*.
- Pringle, K, Sardo, A M, Williams, B, De Vito, L, Hansen, M, Taylor, M, Lamb-Riddell, K, Laggan, S, Cox, T. Homes Under the Microscope: Findings for a pilot citizen science project measuring airborne microplastics in the home. *In preparation*.



Looking ahead

At the time of writing, the project team has successfully applied for an UKRI Citizen Science Collaboration Grants - Bridging Fund. The funding will extend the project for a further 12 months, until June 2024 and will focus on developing and delivering activities in schools. A follow-on report/addendum will be added to this report in due course.

Appendix 1 - Final online survey (Pilot participants)



Homes under the microscope is a co-creative project – we need your opinions and feedback to help us further design and shape the future research. We would like to evaluate your recent experience with the HOMEs project through a few questions, which will take no longer than 5-10 minutes to complete and will help us improve our project.

This is anonymous and data will be stored securely, treated anonymously and confidentially. This study was given ethics consent by the Research Ethics Committee of the University of the West of England, UK researchethics@uwe.ac.uk.

If you have any questions about this survey, please email the Evaluation Leader, Dr Margarida Sardo (margarida.sardo@uwe.ac.uk). Completing this survey indicates that you give consent for this data to be used in this research study.

Completing this survey indicates that you give consent for this data to be used in this research study.

Thank you for your time!

Please add your Participant number here: _____

1. Overall, how would you rate your experiences so far on the HOMEs project:

Excellent (5)

Good (4)

OK (3)

Not good (2)

Not good at all (1)

Any additional comments:

2. What was your favourite aspect about being involved in the HOMEs project pilot? (pick your top 3)

Contributing to research

Feeling as though I am making a difference

Learning about microplastics

Understanding microplastics in my home

Helping to raise awareness on airborne microplastics

Other. Please specify: _____

3. From your experiences so far, what aspect about being involved in the HOMEs project would you improve? (tick up to three)

Communication with project team

Communication about the project

Coordination of the activities

Face-to-face interaction with the project team

The amount of work required

The amount time required

The technical aspects

Provide more ways to be involved

Training

Opportunities to interact with industry

Other. Please specify: _____

4. What originally motivated you to participate in the HOMEs project? (tick all that apply)

- I wanted to contribute to research
- I wanted to know about microplastics in my home
- I am interested in microplastics in general
- I am interested in the science
- I am concerned about the health implications of microplastics
- I am concerned about the environmental implications of microplastics
- I am interested in citizen science projects
- Someone I knew encouraged me to join
- Someone I knew told me about it
- The marketing appealed to me
- Other. Please specify: _____

5. In your opinion, has participating in HOMEs improved your knowledge about:

	Huge improvement (4)	Some improvement (3)	Little improvement (2)	No improvement (1)
Microplastics in general				
Airborne microplastics				
The scientific process of data collection and analysis				
Existing microplastics policy				
The benefits of citizen science for societal issues				
Solutions to minimising airborne microplastics in the home				

6. To what extent has your time on HOMEs influenced any of the following:

- The way you buy clothes
- The way you wash clothes
- Your engagement with policy makers
- Your engagement with business
- Participation in community projects
- Participation in other citizen science projects
- Your conversations with friends
- Your conversations with family
- Your conversations with co-workers
- Your conversations with your neighbours
- Your conversations with your community group (if applicable)
- Your conversations with people you did not know before
- Your trust in policy makers to change policies based on citizens' input
- Your trust in industry to change practices based on citizens' input
- Trust in your own ability to make a difference
- Belief that your actions can make a difference

7. Are there any other opportunities that you would like to get involved in while the project is running:

- Training in scientific skills
- Advocacy training (e.g., how to speak with industry)
- Interactions with industry (i.e., policy workshops)
- Other...

If you have anything to add about the HOMEs project, please leave your comments here: _____

Thank you for your time and feedback!

Appendix 2 - Final online survey (Roll out participants)



We would like to evaluate your recent experience with the HOMEs project through a few questions, which will take no longer than 5-10 minutes to complete and will help us improve our project. This is anonymous and data will be stored securely, treated anonymously and confidentially. This study was given ethics consent by the Research Ethics Committee of the University of the West of England, UK researchethics@uwe.ac.uk.

If you have any questions about this survey, please email the Evaluation Leader, Dr Margarida Sardo (margarida.sardo@uwe.ac.uk). Completing this survey indicates that you give consent for this data to be used in this research study.

Thank you for your time!

Please add your Participant number here: _____

1. What was your involvement in HOMEs? (tick all that apply)

Pilot (Summer) participant
Roll out (Winter) participant

2. Who was involved in the sampling process in your house (collecting data, using the microscopes, etc.)? (tick all that apply)

Myself
My partner
My child(ren)
My flatmate(s)
My parent(s)
Other. Please specify: _____

3. Overall, how would you rate your experiences on the HOMEs project:

Excellent (5)
Good (4)
Neutral (3)
Not good (2)
Poor (1)

Any additional comments:

4. Overall, what was your favourite aspect about being involved in the HOMEs project? (pick your top 3)

Contributing to research
Feeling as though I am making a difference
Learning about microplastics
Understanding microplastics in my home
Helping to raise awareness on airborne microplastics
Other. Please specify: _____

5. What would you like more/less of:

(scale: I would like more of – It was the right amount – I would like less of)

Communication with project team
Communication about the project
Face-to-face interaction with the project team
The amount of work required
The amount time required
Training in scientific skills
Advocacy training (e.g., how to speak with industry)
Interactions with industry (i.e., policy workshops)

Other. Please explain your answer: _____

6. What originally motivated you to participate in the HOMEs project? (tick all that apply)

- I wanted to contribute to research
- I wanted to know about microplastics in my home
- I am interested in microplastics in general
- I am interested in the science
- I am concerned about the health implications of microplastics
- I am concerned about the environmental implications of microplastics
- I am interested in citizen science projects
- Someone I knew encouraged me to join
- Someone I knew told me about it
- The marketing appealed to me
- Other. Please specify: _____

7. In your opinion, has participating in HOMEs improved your knowledge about:

	Large improvement (5)	Some improvement (4)	Little improvement (3)	No improvement (2)	Not sure (1)
Microplastics in general					
Airborne microplastics					
The scientific process of data collection and analysis					
Existing microplastics policy					
The benefits of citizen science for societal issues					

8. To what extent has your time on HOMEs influenced/changed any of the following: (0-10 scale. Not at all - some influence - a complete change)

- The way you buy clothes
- The way you wash clothes
- Your engagement with policymakers
- Your engagement with business
- Participation in community projects
- Participation in other citizen science projects
- Your conversations with friends and family
- Your conversations with co-workers and/or neighbours
- Your conversations with people you did not know before
- Your trust in policymakers to change policies based on citizens' input
- Your trust in industry to change practices based on citizens' input
- Trust in your own ability to make a difference
- Belief that your actions can make a difference

9. Did you gain any new skills as a result of your participation in the HOMEs project?

- Yes. Please specify:
- No
- I'm not sure

10. Did you take any action based on your experience with the HOMEs project?

- Yes. Please state what action:
- No
- Not yet, but I am thinking about it.

11. If you have anything else to add about the HOMEs project, please leave your comments here: _____

Thank you for your time and feedback.

Appendix 3 – Initial interview (HOMEs team)

As part of the HOMEs project evaluation, we would like to ask you a few questions while we are still starting the project.

If you agree to take part, please answer the small number of questions below, this should take no longer than 10 minutes to complete and will contribute to our ongoing project evaluation. This is anonymous and data will be stored securely, treated anonymously and confidentially. This study was given ethics consent by the Research Ethics Committee of the University of the West of England, UK researchethics@uwe.ac.uk.

Completing these questions indicates that you give consent for this data to be used in this research study.

Thank you for your time.
Margarida

Questions

1. Can you please briefly describe your role in the HOMEs project?
2. How would you describe your experience in citizen science projects?
 - I'm an expert
 - I have some experience
 - I have little experience
 - I have no experience / this is my first project.
3. What are your expectations of the project?
 - a. Do you think you will gain any new skills? If so, which ones?
4. Thinking about your role in HOMEs, what sort of challenges are you anticipating, if any?
5. Please add here anything else about the project you think might be relevant.

Thank you for your time!

Appendix 4 - Final interview (HOMEs team)

As part of the HOMEs project evaluation, we would like to ask you a few final questions, sort of a reflection of your experience with the project. This is an important step in the evaluation and is included in the original bid.

If you agree to take part, please answer the small number of questions below, this should take no longer than 10 minutes to complete and will contribute to our ongoing project evaluation. This is anonymous and data will be stored securely, treated anonymously and confidentially. This study was given ethics consent by the Research Ethics Committee of the University of the West of England, UK researchethics@uwe.ac.uk.

Completing these questions indicates that you give consent for this data to be used in this research study.

Thank you for your time.
Margarida

Questions

1. Can you please briefly describe your role in the HOMEs project?
2. As of today, how would you describe your experience in citizen science projects?
I'm an expert
I have some experience
I have little experience
I have no experience / this is my first project.
3. How would you rate your overall enjoyment of the HOMEs project:
(1 to 10 scale, 1 being lowest enjoyment and 10 highest)
Please explain your answer: _____
4. In your opinion, and thinking about the project overall, what worked well?
5. And what didn't work so well?
6. What would you have done differently? Why?
7. What was your biggest challenge?
8. Did you gain any new skills? If so, which ones?
9. Please add any other comments about the project and your experience that you think might be relevant.

Thank you for your time!