SciShops

ENHANCING THE RESPONSIBLE AND SUSTAINABLE EXPANSION OF THE SCIENCE SHOPS ECOSYSTEM IN EUROPE

D3.3

Stakeholders insights on participatory community-based research

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Project

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Executive summary

The main purpose of the Scishops.eu project is to build on the capacity of already existing science shops in Europe and beyond with the help of research organizations as well as to develop a Knowledge Exchange Roadmap. Furthermore, as an objective within the project, at least 10 new science shops will be established by different types of organizations (large enterprises, research institutes and universities). They will be twinned with already established science shops and the new staff will learn from experienced science shops staff.

One of the main objectives of Work Package 3 is to obtain a vast collection of relevant stakeholders and, through conceptualization and organization of training and knowledge exchange events, to develop a Knowledge Exchange Roadmap via engagement of stakeholders. In this respect, this task is related to Objective 2, which is to identify and engage stakeholders through participatory events and to conceptualize (Objective 5) and organize summer schools and knowledge cafes.

More specifically, the main purpose of Task 3.3 is to mobilise stakeholders and target groups in order to identify current perceptions, experiences, attitudes and challenges on participatory community-based research. To do this task, a methodology based on developing surveys and expert interviews, followed by their analysis, led into the creation of this initial report on current perceptions, experiences, attitudes and challenges with Community-Based Research (CBR) and Community-Based Participatory Research (CBPR). This information will be created for the further development of a stakeholder involvement and knowledge exchange roadmap.

To achieve this, the survey was distributed among 151 people with experience in Community-based research (CBR) and Community-based participatory research (CBPR) in order to obtain more insights on this topic. From this group, 112 subjects had some experience and 39 subjects knew this research but had no experience with it yet. Thirty-two interviews with experts were carried out among different countries. The survey was fundamentally quantitative and the response rate was 12.83% (151 responses for 1,177 invitations).

However, the great majority of the surveyed thinks that CBPR it is a transversal approach that can be applied in all areas but, in practice, it is more developed in Social Sciences and Medicine and Health. In this regard, differences have been found by gender: female participated more in Medicine and Health research activities. Regarding the group that had knowledge but not experience, women considered most appropriate field for applying this research "Technology" while men considered "Social Sciences" (21%). Other conclusions extracted from the survey are that in most of the cases, it was more developed in academic institutions and the most used approach is bottom-up (that is, the society proposes the problems/needs to institutions) and the community is considered as a full partner.

Regarding the interviews, the majority of the interviewed believe all topics can be used with CBR/CBPR. They also consider this research is transversal to all disciplines and the science should be more inclusive. As well, the community is considered as a full partner for CBR/CBPR activities and it is mentioned that is necessary to implement a plan to train community partners in research methodology. Besides, CBPR is perceived as approach with enormous of capacity to build bridges and close the gap between the scientific and technological world and citizens despite the difficulties.

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1 Introduction, Background and Methodology of the Survey and Expert Interviews

In the framework of SciShops.eu project, the main purpose of Work Package 3 (WP3) is the engagement of stakeholders in the science shops ecosystem. To do this, WP3 is organised into six tasks that aim to collect and mobilise stakeholders and experts, as well as to get their involvement and engagement through the knowledge transfer events. In this sense, task 3.3 seeks to mobilise stakeholders and target groups to identify current perceptions, experiences, attitudes and challenges on Community-Based Participatory Research (CBPR).

Community-Based Participatory Research has become an increasingly common approach to research involving citizen-centred, community-driven research approaches. It is a collaborative research approach that involves researchers, scientists, community members, groups of citizens (whether organized in groups or not), and other stakeholders in the research process. The CBPR approach recognizes that every one of them is involved in the development of a knowledge exchange process and has insights to contribute. The final aim of CBPR is to engage relevant actors in order to generate new knowledge and action to be able to generate positive changes.

This report is focused on the stakeholders' insights on Community-Based Participatory Research. In order to achieve this goal, a survey and an interview questionnaire have been designed and conducted together with stakeholders and target groups. Regarding the survey (Appendix 1), the participants are people with any level of knowledge and experience in Community-based Research (CBR) or Community-Based Participatory Research (CBPR), who belong to the following stakeholders groups:

- Researchers
- Community organizations
- Policy makers

The perspective from which these groups address CBR/CBPR is different, so it is important to know experiences, attitudes, perceptions and challenges from each of them. It must be taken into account that the participants in this study have not been selected by a random sampling process. The following strategies were used:

- Research partners were requested a list of potential participants among the experts in their own country, in order to avoid overlapping with the previous task, T2.3.
- A search strategy was used with the aim to identify more experts in CBR/CBPR. The databases used were Web of Science (WoS), Scopus and Google Scholar.
- Previous and current CBR/CBPR projects were identified in the Community Research and Development Information Service (CORDIS), to detect additional scientists involved in this kind of research.
- At a national level, some citizen platforms with CBR/CBPR projects have been detected in order to identify the participants involved in them.

As mentioned above, the survey has been mainly distributed to respondents with some experience in CBR/CBPR. In addition to this, participants with knowledge on this kind of research but with no experience, have been included; i.e. a researcher that has written about this topic or has conceptualized it, but does not have any experience. As a result, the questionnaire is made up by two

response paths. The tool being used to conduct the survey was Google Forms. It is a Google Drive application that allows us to program forms and surveys, as well as to monitor the responses automatically.

The questionnaire has been translated into four languages (English, Italian, German and Spanish), and is made up by 39 questions in the path for respondents with experience in CBR/CBPR, as well as 19 questions in the path for respondents with no experience. In case the participants have one or more experience, they had to describe the most relevant one. All questions are structured in these sections:

- **Experiences:** In this section, the surveyed are asked about their previous experience in CBR/CBPR. The questions refer specifically to area, purpose, features, benefits, barriers, approach, supports, and outcomes related to the research. In the case of the path for respondents with no experience, they are asked about the reason for not participating, any training received, and the main features of a hypothetical organization of CBR/CBPR activity.
- **Perceptions:** This is a section common for both paths. Experienced and non-experienced respondents are asked about the suitability of CBR/CBPR for addressing social problems and what kind of issues are more appropriate for this research.
- **Attitudes:** This is also a section common for the experienced and non-experienced respondents. The questions are focused on detecting an active attitude (or potentially proactive attitude in the case of inexperienced respondents) regarding the start of a CBR/CBPR activity; the ability to guide the stakeholders in the research process, the expansion of the research, etc.
- **Challenges:** This part deals with potential changes in future CBR/CBPR experiences (methodology, location, duration, etc.), and some questions about impact and recognition of this experience.

Regarding the number of survey responses, 151 responses have been obtained, 112 from respondents with experience in CBR/CBPR, and 39 from respondents with no experience. The percentage obtained in the Table and Figures was calculated with n=151 in perceptions and attitude questions; n=112 corresponding to respondents with experience (Path 1) and n=39 to the target group without experience but with knowledge in CBR/CBPR (Path 2). The stakeholder group most represented in the results of the survey is "Researchers". Furthermore, in the sample there was a low participation from "policymakers" and "community organizations".

The purpose of the interview (Appendix 2), was to query experts who had experience in CBR/CBPR in order to learn about their previous experiences in this kind of research. The experts were selected from different countries, research areas, institutions and genders, in order to obtain as much diversity as possible in perceptions, experiences and attitudes. To select these contacts, the following strategies were used:

- Research partners were requested for a list (between 5 to 10 people) of potentially expert participants from their own countries.
- A search strategy was used with the aim to identify more experts on CBR/CBPR. The databases used were Web of Science (WoS), Scopus and Google Scholar.
- Participation in citizen science events in order to detect other experts who carried out CBR/CBPR projects.

As a result, 32 interviews of with a duration of approximately one hour have been conducted: From the total amount of interviews, 10 were conducted with men, 17 with women, and 5 respondents preferred not to indicate their gender. The stakeholder most represented is "researchers", although interviews have also been obtained from other collectives.

The interview had the following structure:

- Information on the interviewed: Age, gender, collective (researcher, policy maker, community organization, citizen), education, and country.
- Experience: Purpose of the activity, support received, problems and barriers found, success, impact, etc.
- Perception: Perception of those interviewed ob CBR/CBPR as a transversal approach, and the type of problems that are more suitable to be addressed with this research. In addition, it includes the perception of the participants on the role of the community in the research process (if it is considered as a full partner).
- Attitude: The purpose of this section is to evaluate the attitude of the respondent about the expansion, the promotion and the development of CBR/CBPR.
- Challenges: In this part, based on the interviewees' experience, deals with the changes which would be implemented in a future CBR/CBPR experience, possible solutions to solve the barriers found and gather knowledge on how to improve community involvement.

The results of this task will be useful for the stakeholders' involvement and to create a knowledge exchange roadmap in Task 3.6.

Schedule and Implementation

A timeline was developed in the framework of the task to achieve all the goals in the three-months' duration (Fig. 1).

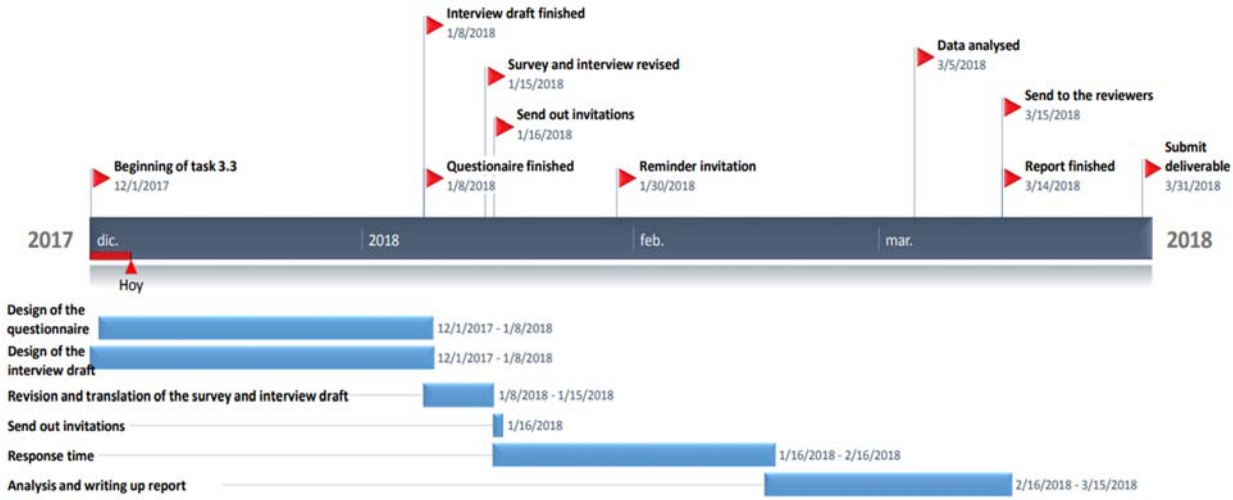

Figure 1: Timeline of Task 3.3

2 Results and Analyses from the Survey

2.1. Survey Respondents' Profile

Gender

A total of 151 survey responses have been obtained: 78 individuals (51.66%) were women and 69 (45.70%) were men. Four respondents (2.65%) did not specify their gender (Fig. 2).

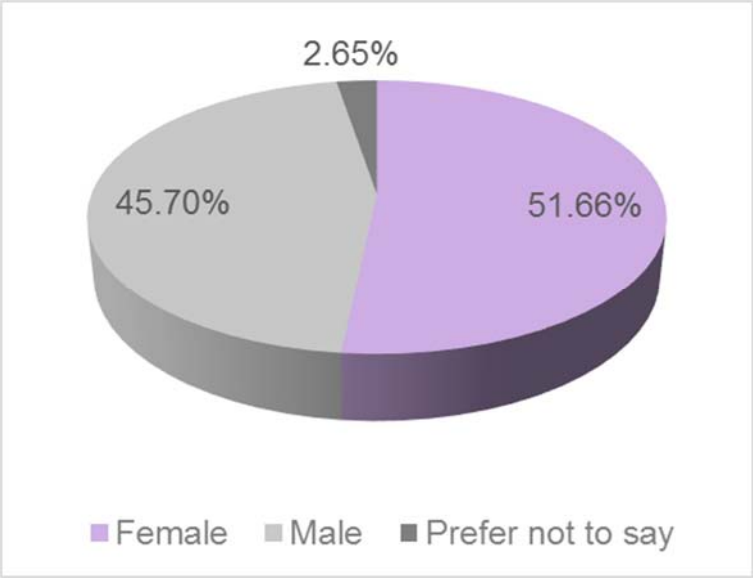

Figure 2: Gender of the Respondents (n=151)

Regarding the age, a total of 47 respondents (31.13%) were between 45-54 years old, followed by 46 (30.46%) in the range between 35-44 years. That is, 61.6% represents a group between 35-54 years. A lower share of the respondents, more specifically 1.99% (3 respondents) are from 18 to 24 years old (Fig. 3).

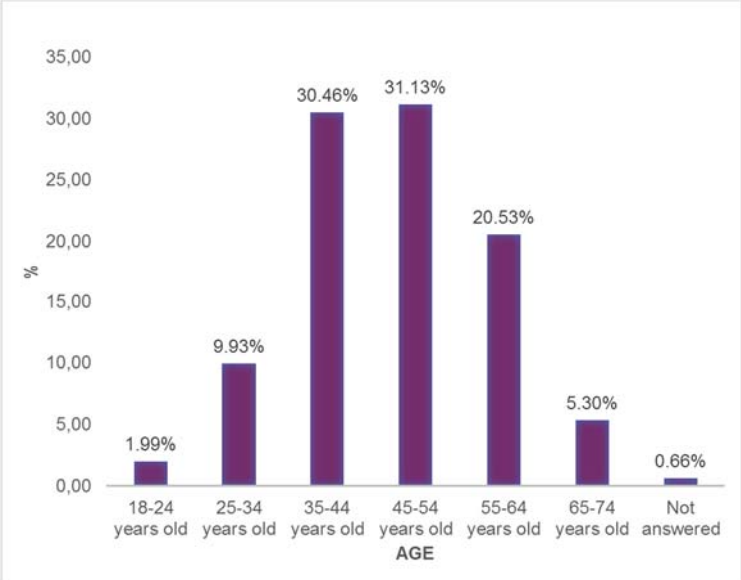

Figure 3: Age of the Survey Respondents (n=151)

Occupation

As far as the profile of the surveyed is concerned, 136 of the respondents (90.07%) are scientists or researchers as is shown in Table 1. From this group, 69 are women (45.70%) and 63 are men (41.72%). The next group is composed by the ones that work at a community organization, with 8 responses (5.30%). In this case, 6 are women (3.97%) and 2 are men (1.32%). The group with fewer respondents is the one including those who work at a governmental or policymaking institution, with 3 respondents (1.99%). Finally, 4 respondents have been classified in the "Other" options (2 men and 2 women). That includes cases such as workers of a company, retired or staff at a medical centre, among others.

Occupation	Female	Male	Prefer not to say	Total
I am a scientist/researcher	69 (45.70%)	63 (41.72%)	4 (2.65%)	136 (90.07%)
I work at a community organization	6 (3.97%)	2 (1.32%)	--	8 (5.30%)
Others	2 (1.32%)	2 (1.32%)	--	4 (2.65%)
I work at a governmental or policy making institution	1 (0.66%)	2 (1.32%)	--	3 (1.99%)
Total	78	69	4	151

Table 1: Occupation of the Surveyed (n=151)

Country

The country with more responses is Spain with 26 (17.22%), followed by the United Kingdom with 15 respondents (9.9%), Germany with 14 (9.27%) and the USA with 13 (8.6%) respondents, respectively. If we take into consideration the responses by continent, 122 (80.8%) were from Europe, 25 (17%) were from America and 3 responses (2%) from Asia (Table 2 and Figs. 4 and 5).

Country	No responses	%
Spain	26	17.22
UK	15	9.93
Germany	14	9.27
USA	13	8.61
Lithuania	12	7.95
Italy	10	6.62
Canada	9	5.96
Austria	8	5.30
Belgium	5	3.31
Ireland	5	3.31
Portugal	5	3.31
France	4	2.65
Sweden	4	2.65
The Netherlands	4	2.65
Cyprus	3	1.99
Greece	2	1.32
Israel	2	1.32
Switzerland	2	1.32
Brazil	1	0.66

China	1	0.66
Colombia	1	0.66
Denmark	1	0.66
Guyana	1	0.66
Hungary	1	0.66
Poland	1	0.66
Not answered	1	0.66
Total	151	

Table 2: Number of Responses by Country (n=151)

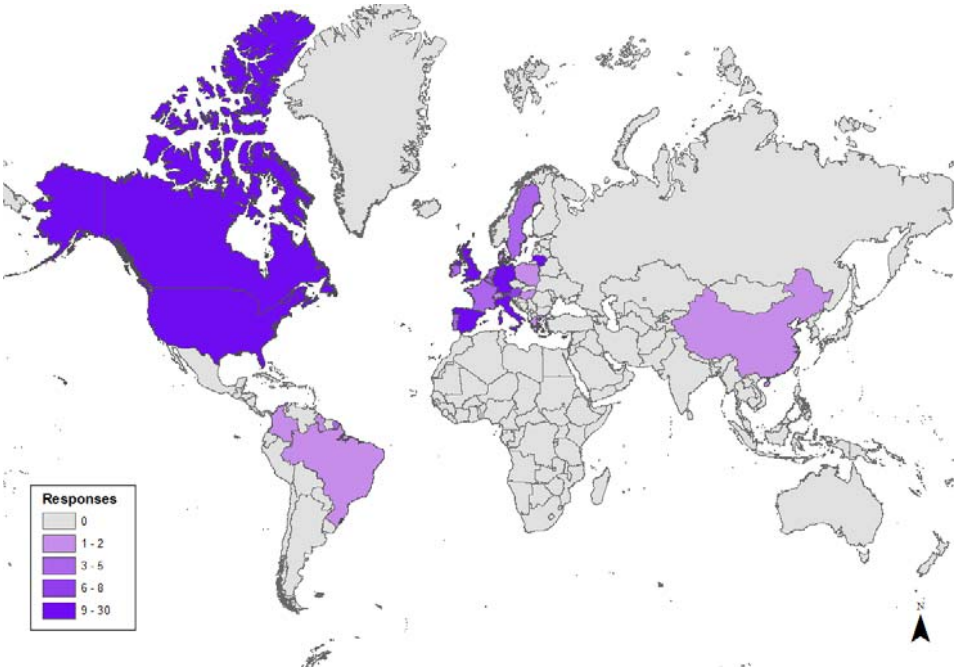

Figure 2: Distribution of the Number of completed Surveys in Different Countries Worldwide (n=151)

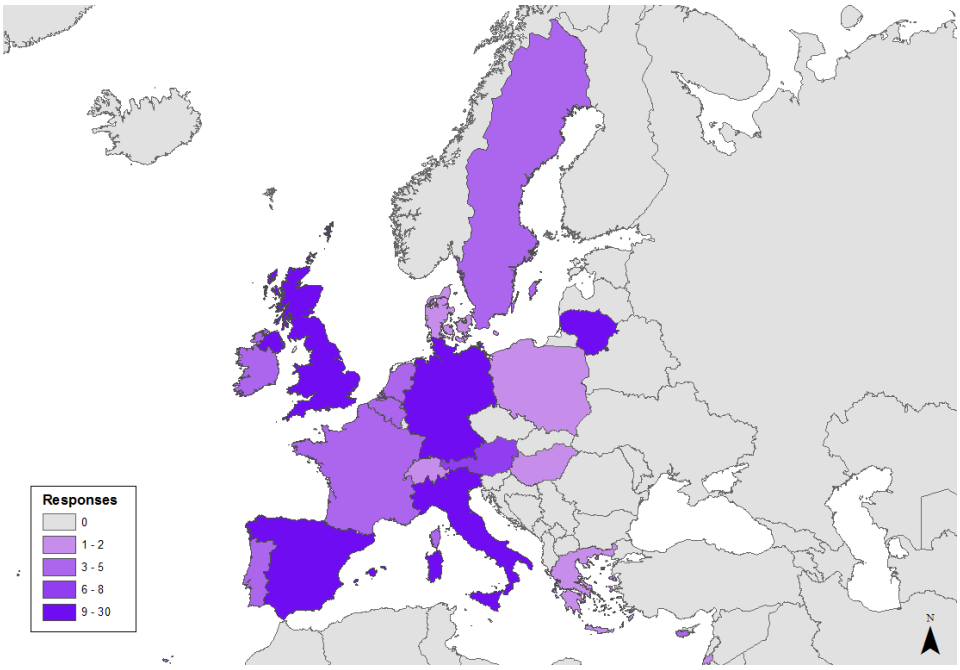

Figure 5: Distribution of the Number of completed Surveys in European Countries (n=151)

2.2. Experiences in CBR/CBPR

One of the main objectives of the SciShops.eu project is to detect the weaknesses and strengths of Community-Based Research (CBR) and Community-Based Participatory Research (CBPR). These terms were defined in the Deliverable 2.1 (Kontic, B. and Kontic C., 2018) as follows:

- CBPR – Community Based Participatory Research, CBPR, is a way of organising research where scientists work together with non-governmental organisations, communities and other groups of society to co-create new knowledge or understanding about community issues. The new knowledge can later be used to attain change in the community.
- CBR – Community-Based Research. CBR is a research activity, performed by public or private, commercial or non-commercial institutions, in response to community's needs. These needs are preferably formulated through community-based research questions.

In this part, the questionnaire has different questions depending on the path. This part was divided into two paths: one assuming that the respondent knows what this research is and has experience with it and the other assumes that the respondent knows this research but has no experience with it. The decision to design the questionnaire in this way is based on the assumption, that some researcher might have a profound theoretical background but may not have specific experiences. It should be noted that this last option was considered for a small group of respondents.

First, we will analyse the responses of respondents with experience in CBR/CBPR.

1.- How were you involved in the research method?

Regarding the involvement in the research method, 102 respondents with experience (91.07%) were involved as members of a project's team. Other options such as direct participant or beneficiary obtained 6 (5.36%) and 4 (3.57%) responses, respectively (Fig. 6).

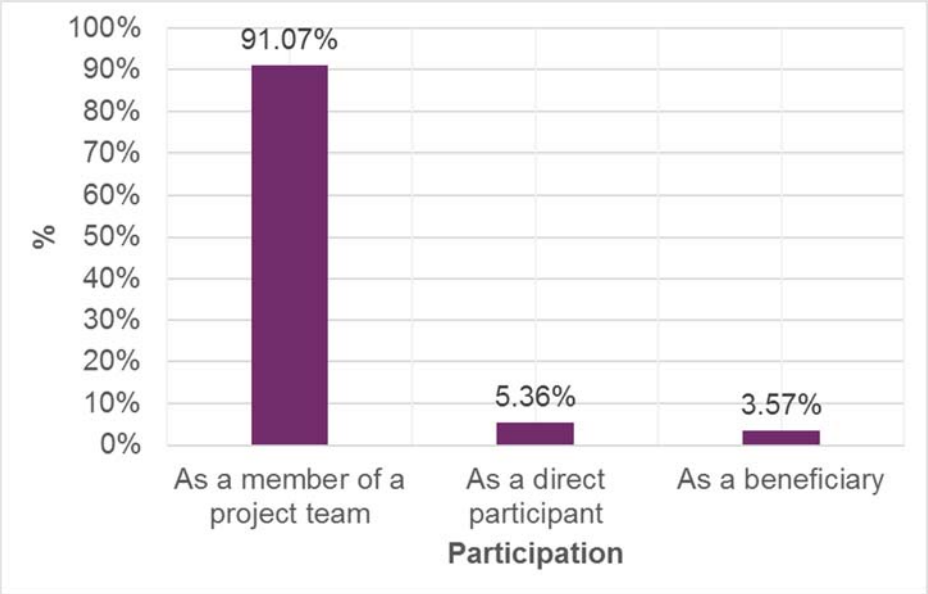

Figure 6: Involvement in the Research Method (n=112)

2.- In which field did you undertake CBR/CBPR?

The most voted field the respondents indicated they undertook CBR/CBPR was "Social Sciences", with 40 responses (35.71%), followed by "Medicine and Health", with 30 responses (26.79%). "Technology" (Engineering, Computer Science, etc.) has a lower percentage, with 5 responses (4.46%). If we checked this information with the occupation, regarding the scientists/researchers, the higher percentage where the research was undertaken was in "Social Sciences" with 38 responses (33.93%), followed by "Medicine and Health" with 29 responses (25.89%) (Table 3).

Field	I am a scientist/ researcher	I work at a community organisation	I work at a governmental or policy-making institution	Other	Total
Social Sciences	33.93%	0.89%	--	0.89%	35.71%
Medicine and Health	25.89%	0.89%	--	--	26.79%
Natural Sciences	13.39%	0.89%	0.89%	--	15.18%
Various	8.04%	--	--	--	8.04%
Humanities	6.25%	--	--	0.89%	7.14%
Technology	4.46%	--	--	--	4.46%
Other	2.68%	--	--	--	2.68%

Table 3: Field in Which the Surveyed Undertook CBR/CBPR (n=112)

If we consider the gender, some differences may be appreciated (Fig. 7). Distribution of men and women in this path is as follows: 60 females (53.57%) and 49 males (43.75%). As the results of the survey indicate, women have applied CBR/CBPR in the "Medicine and Health" field (17.86%), followed by "Social Sciences" (16.07%) and "Natural Sciences" (7.14%). The less applied field is "Technology" (2.68%). On the contrary, men have used more CBPR in "Social Sciences" (17.68%) followed by "Medicine and Health" (8.93%) and "Natural Sciences" (7.14%). The lower percentage also corresponds to "Technology" (1.79%).

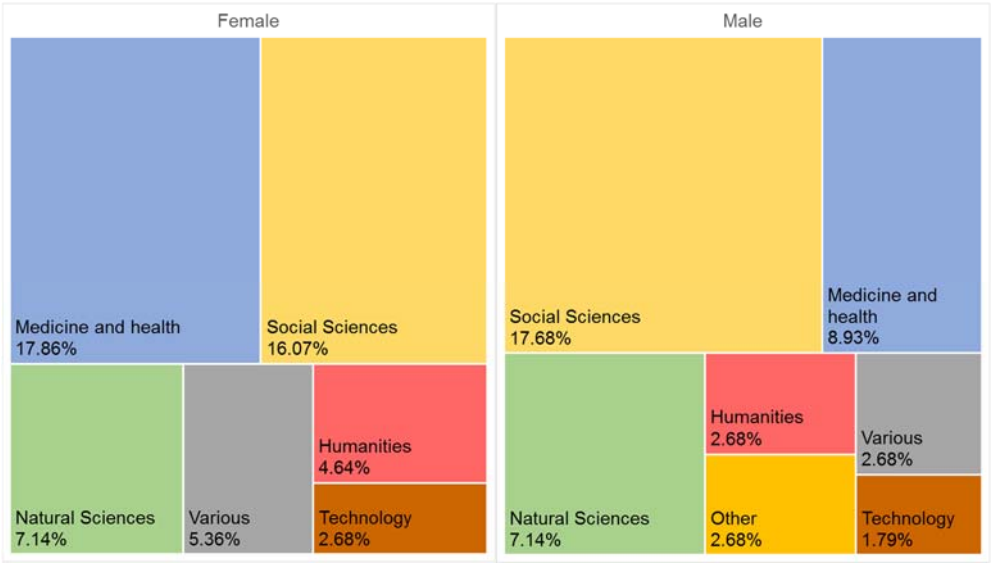

Figure 7: Field in Which the Surveyed Undertook CBR/CBPR (n=112)

3.- What was the purpose of the research?

One of the most remarkable questions of the questionnaire was about the purpose of the research. This information allows knowing what the main objective was. In that sense, 40 respondents (35.71%) believed the main purpose is to collect data for analysing and monitoring a specific issue. This choice was followed by the options "To solve a problem in a society" and "To engage the community in research", each one with 36 responses each (32.14%). The lowest percentage corresponded to the option "To run a consultation with citizens" (7 responses, 6.25%). Six respondents (5.36%) chose the "All of the above" option (Table 4). Finally, in the "Other" response some of the respondents specified "Empowerment of people" or "Stakeholder and public consultations" as other options.

Purpose of the Research	%
To collect data for the analysis/monitoring of a specific issue	35.71
To solve some problem in society	32.14
To engage the community in research	32.14
To run a consultation with citizens	6.25
All of the above	5.36
Others	2.68

Table 4: Purpose of the Research (n=112)

4-5. What form of activity did you use? And what was the average duration of the form(s) used?

The activities being most carried out were the "Focus groups", with 38 responses (33.93%) and "Co-creation events/projects", with 37 responses (33.04%) (Table 5).

Form of Activity	%
Focus group	33.93
Co-creation events/projects	33.04
Knowledge café/Science café	13.39
Citizen Assembly	4.46
All of the above	3.57
Other	44.64

Table 5: Form of the Activity Used in the CBR/CBPR (n=112)

Nevertheless, in this section, a high number of options were considered. Find below some of the responses:

- Arts-based methods
- Air monitoring
- Charrette
- Policy dialogues
- Citizen Observatory
- Citizen Science
- Collective Tagging / Mapping
- Community Advisory Board
- Community meeting/mapping
- Morning cafe
- Consultation meetings
- Co-operative transdisciplinary research
- Crowd-sourcing data collection and processing
- Interviews
- Hackathon
- Interactions during case studies
- Interactive Museum of Mathematics
- Interviews/ surveys
- Forest walks
- Participatory mapping
- Literature review
- Open Living Labs
- Training course
- Voluntary Geographical Information (VGI)

Regarding the duration, 31 responses (27.68%) indicated "One day", and the next option most indicated was "One month", with 14 responses (12.50%) (Table 6).

Duration	No. responses	%
One day	31	27.68
One month	14	12.50
Other	12	10.71
I don't remember exactly	7	6.25
One week	6	5.36

Table 6: Duration of the Activity (n=112)

6.- In which type of institution was the research conducted?

On the question where the research was conducted, 84 responses (75%) indicated the research was conducted in a University/research centre (Table 7). This response was followed by School/College, with 12 responses (10.71%), and NGO, with 11 (9.82%). In the "Other" section, some of the surveyed stated "Community centre", "Private organization", "Museums", "SME" or "villages".

Institution	No. responses	%
University/research centre	84	75.00
Others	13	11.61
School/College	12	10.71
NGO	11	9.82
Government	6	5.36
Health centre	4	3.57
All answers	1	0.89

Table 7: Type of Institution Where the Research Was Conducted (n=112)

7.- Was the research undertaken as part of your job?

One hundred and two respondents (91.07%) mentioned that the research was developed during their working hours, while 10 respondents (8.93%) said it was on a voluntary basis (Fig. 8). Besides, if we consider that variable by gender, 56 women (50%) specified that the research was done during their working hours vs 43 men in the same situation (38.4%).

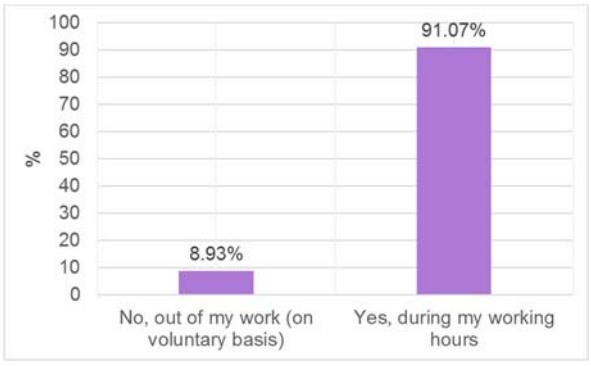

Table 8: Type of Institution Where the Research Was Conducted (n=112)

8.- Do you believe that CBR/CBPR was the correct type of research for the topic addressed?

The great majority of respondents (99, 88.39%) considered that the CBR/CBPR research was correct for the topic addressed. Eleven respondents (9.82%) stated that it was only "Partly" the case, while 2 respondents (1.79%) answered "No" in this response (Fig. 9). This leads to the conclusion that most of the respondents have experienced a positive perception of this research.

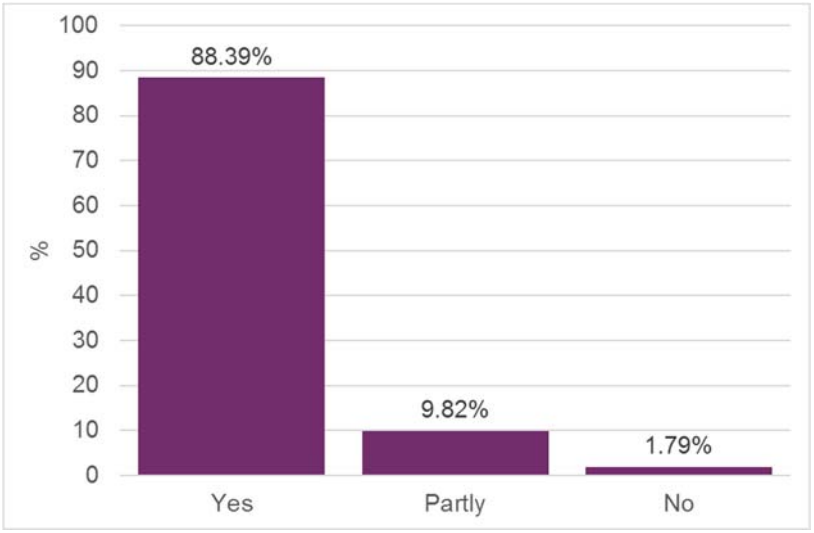

Figure 9: Correct Methodology Addressed (n=112)

9.- Given your experience(s) of CBR/CBPR, what do you consider are the main benefits of this type of research for the community? (multiple choice)

A) For the community

Considering the main benefits for the community, the option most voted was "Enhanced learning for societal awareness", with 80 responses (71.43%), followed by "Development of new relationships between different stakeholders" (74 responses, 66.07%) and "Finding solutions to societal problems" (73 responses, 65.18%). The least voted option was "Empowering civil society", with 25 responses (22.32%) (Table 8).

In the "Others" option, some of the respondents mentioned "Capacity building", "Evaluation of scientific results", "Improve efficacy of programs/data" or "Translation of knowledge into policy and systems change", among others.

Benefits for the Community	No. responses	%
Enhanced learning for societal awareness	80	71.43
Development of new relationships between different stakeholders	74	66.07
Finding solutions to societal problems	73	65.18
Encouraging multi-actor dialogue	69	61.61
Knowledge transfer between different stakeholders	60	53.57
Empowering civil society	25	22.32
Others	16	14.29

Table 8: Main Benefits of This Research for the Community (n=112)

B) For your organization

As one of the main benefits of this type of research, the respondents highlighted the "Production of new knowledge", with 90 responses (80.36%), followed by "Knowledge transfer between different stakeholders", with 76 responses (67.86%) and "Development of new relationships between different stakeholders", with 65 responses (58.04%) as the highest ones. In the "Other" option, some of the respondents indicated "All of the above", and "Building capacity community" (Table 9).

Benefits for the Organization	No. responses	%
Production of new knowledge	90	80.36
Knowledge transfer between different stakeholders	76	67.86
Development of new relationships between different stakeholders	65	58.04
Enhanced learning for societal awareness for societal awareness	56	50.00
Social responsibility	55	49.11
Encourage multi-actor dialogue	54	48.21
Other	2	1.79

Table 9: Main Benefits of This Research for the Organization of the Surveyed (n=112)

10.- Given your experience(s), what do you consider to be the main difficulties of using this type of research for community? (multiple choice)

A) For community

In this section, with 45 responses (40.18%), most of the respondents selected "Lack of understanding in your own organization in community problems/needs" as the main difficulty in using this research for the community (Table 10).

Difficulties for Community	No. Respondents	%
Others	49	43.75
Lack of understanding in your own organization in community problems/needs	45	40.18
Not feeling enough involved as a part of the research	32	28.57
Not producing any difference/improvement	26	23.21

Table 10: Main Difficulties for Community According to the Surveyed (n=112)

It should be mentioned that the respondents pointed out other difficulties that have to do with lack of institutional and / or economic support, and even with the reluctance of some people and researchers. It was also pointed out that perhaps research in CBR/CBPR is neither a sustainable format nor does it guarantee the reliability of the data obtained, since it is difficult to get the community to commit to the research over time and require a considerable investment in training and supervision.

B) For your organisation

Regarding the difficulties for your organisation, most people indicated "Lack of financial support from their own organisation", with 57 responses (50.89%) and "Lack of time/equipment" with 55 (49.11%). The option with fewer responses was "Difficulties in coordinating activities with the community", with 34 (30.36%) (Table 11). At this point, some other options where, e.g. "Interest loss", "Difficult to publish that research in journals", "Difficult to tell the research authorities about the benefits of this research (lack of recognition)", "Involve local community" or "Lack of funding", among others, should be added.

Difficulties for the Organization	No. Responses	%
Lack of financial support from the organization	57	50.89
Lack of time/equipment	55	49.11
Lack of expertise/training of personnel involved	48	42.86
Difficulties in coordinating activities with the community	34	30.36
Lack of community interest for engagement in research	27	24.11
Others	21	18.75

Table 11: Main Difficulties of This Research for the Organization of the Surveyed (n=112)

11.- How would you describe the attitude of the participant community in CBR/CBPR?

One of the controversial facts was the attitude of the community in the research. This would encourage (or would not) the involvement of the community in order to be more receptive and to be more actives in the research. In the survey, 98 respondents considered the attitude as positive (87.5%), while 14 respondents considered their attitude as neutral (12.5%). None of the respondents mentioned a negative attitude from the community (Figure 10).

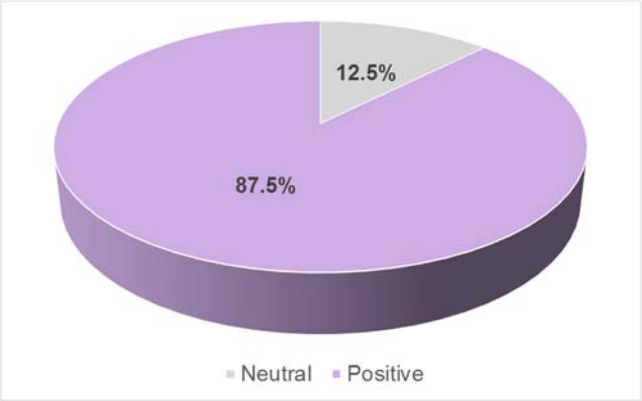

Figure 3: Attitude of the Participant Community According to Surveyed (n=112)

12.- What was the average duration of the research project?

Regarding the average duration of the research project, the largest number of answers corresponded to the option "Between one to three years", with 48 responses (42.86%). It was followed by the option "More than three years", with 25 responses (22.32%) (Table 12). That could be interpreted, that the duration of these projects is long and could be related to European projects.

Duration	%
Between one to three years	42.86
More than three years	22.32
Between one and six months	17.86
Between six months and one year	13.39
I don't remember exactly	3.57

Table 1: Average Duration of the Research Project (n=112)

If we check in more detail the respondents' profiles, the most selected duration by scientists/researchers was the option "Between one to three years", with 44 responses (39.29%). The respondents from the community organisation also indicated the same duration, with 3 responses (2.68%) (Table 13). In the case of people working in Governmental or policy-making institutions, they

selected the option "More than three years" as an option as well, however the percentage is not representative (0.89%) because of the low number of responses.

Duration	Scientist/ researcher	Community organisation	Governmental or policy-making institution	Other	Total
Between one to three years	39.29%	2.68%	--	0.89%	42.86%
More than three years	21.43%	--	0.89%	--	22.32%
Between one and six months	16.96%	--	--	0.89%	17.86%
Between six months and one year	13.39%	--	--	--	13.39%
I don't remember exactly	3.57%	--	--	--	3.57%

Table 2: Duration of the Project by Occupation (n=112)

13. - Do you think the duration of the research was long enough?

Seventy-three respondents (65.18%) believed the duration was enough for developing the research (Fig.11). Nevertheless, 39 respondents (34.82%) indicated the duration was not enough, and more time would have been necessary.

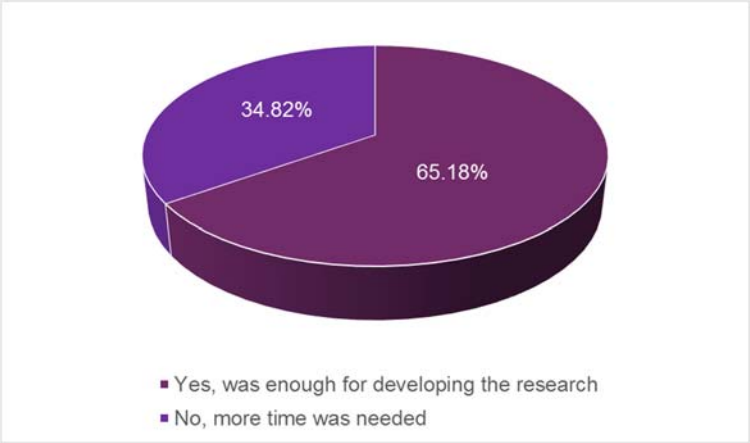

Figure 4. Perception of the Duration by the Surveyed (n=112)

14.- What approach was used in CBR/CBPR for identifying/collecting needs/questions?

Regarding the approach, 64 respondents (57.14%) indicated the approach was top-down. That is, the institution was the one which approached the University (Fig. 12). On the contrary, 25 respondents (22.32%) said it had been a bottom-up approach, which means that the community was the one that approached with the problem. Nineteen respondents (16.96%) indicated it was mutual. As another option, some of the surveyed indicated that the approach came from an "Inter-University cooperation scientific research project" or a "Long-term relationship between University and community" or a "Pre-existing community research relationship".

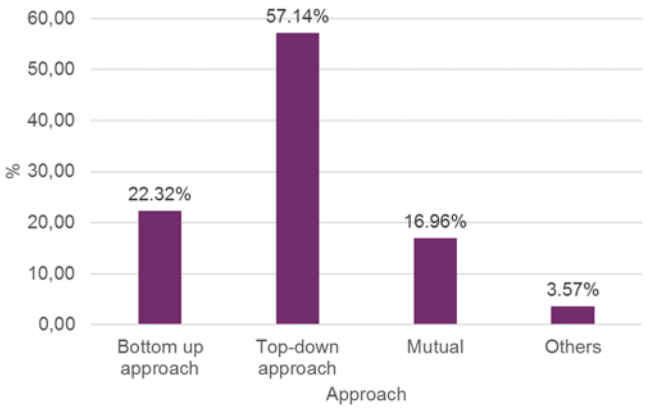

Figure 5. Approach Used by the Surveyed (n=112)

15. Was training offered to the participants before the research?

Fifty-seven respondents (50.9%) answered that training was offered to the participants before the activity. On the other hand, 55 respondents (49.11%) did not receive any training (Table 14).

	Yes	No
Training	57 (50.9%)	55 (49.11%)

Table 3: Training Offered to the Participants (n=112)

16.- Did you have any kind of funding for undertaking the research? If yes, specify from whom.

Regarding funding, 78.57% of the respondents, with 88 responses, come from the public sector. Only 11.61% (with 13 responses) come from the private sector (Fig. 13). Notwithstanding, 20 respondents (17.86%) indicated that the funds came from their own institution and 10 respondents (8.93%) said that they did not receive any funding. Finally, in the "Other" option, some of the respondents mentioned funding from European projects, research funding bodies or even from an NGO.

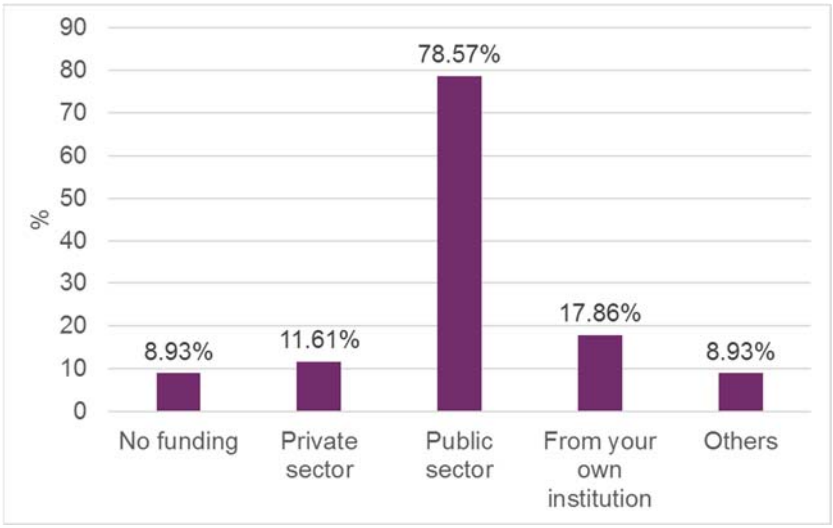

Figure 6. Source of Funds for the Research (n=112)

17.- Did your organization give its support (institutional, promotion, etc.) to the research?

As far as institutional support is concerned, 52 respondents mentioned that they received partial support (46.43%) (Fig. 14). On the other hand, 49 respondents (43.75%) mentioned they received full support. Only 10% indicated no support was given from their institution.

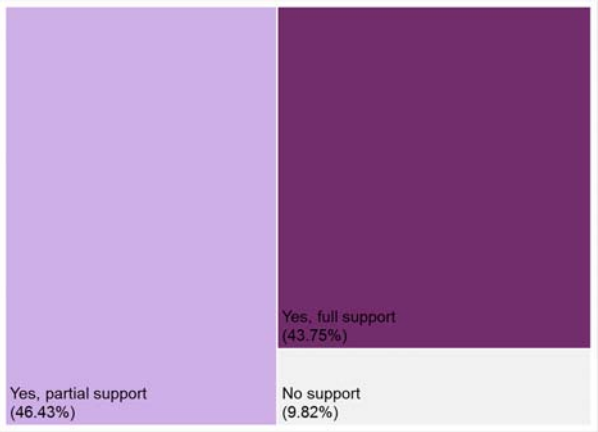

Figure 7: Support from the Organization of the Surveyed (n=112)

18. How would you describe the success in achieving the goals of the research project?

Regarding the success, measured in terms of being satisfactory and sustainable over time, 46 respondents (41.07%) considered the goals had been achieved (but not sustainable over time), while 39 respondents (34.82%) considered that, apart from successful, this research was sustainable over time (Fig. 15). 26 respondents (23.21%) specified the objectives were partially achieved and only one considered the research was not successful.

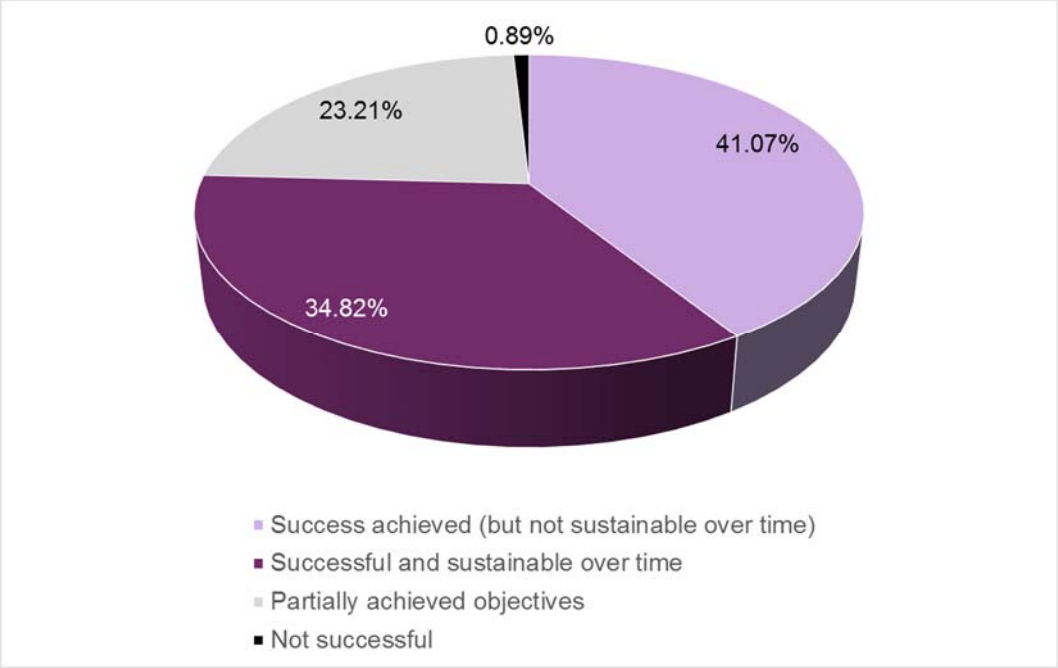

Figure 8: Success Described in Research Project (n=112)

19.- Overall, are you satisfied with the research format? (Duration, place, methodology, etc.)

As far as satisfaction, measured in terms of duration, place or methodology, is concerned, 92 respondents (82.14%) pointed out that they were satisfied and 14 respondents (12.5%) indicated that they were not. Six respondents indicated other option. They indicated, for instance, "Difficulty to answer the question", that was "Difficult to sustain participation", that "Much more potential/benefits could have gained" or even "Mixed experiences".

20.- How would you rate the following aspects of CBR/CBPR?

About the rate of satisfaction with this research, regarding the research question or research topic that was addressed, a total of 59 respondents (52.68%) indicated that they were "Very satisfied" with it, and only 1 respondent indicated that he/she was not satisfied (0.89%) (Table 15). In relation to the methodological guidelines, 54 respondents (48.21%) were "Very satisfied", 33 respondents (29.46%) were "Moderately satisfied", and 15 respondents (13.39%) were "Extremely satisfied". In regard to the research procedure, 48 respondents (42.86%) were "Very satisfied", followed by 41 respondents (36.61%) who are "Moderately satisfied". As far as the involvement of participants is concerned, 41 respondents and 33 respondents (29.46%) were "Very satisfied" and "Moderately satisfied", respectively. Finally, regarding the participants' interactions after the project, 37 respondents (33.04%) were "Moderately satisfied" and 36 respondents (32.14%) were "Very satisfied".

Rate	Research question/ Research topic	Method. Guidelines	Research Procedure	Involvement of Participants	Participants' Interactions after the Project
Not at all satisfied	1 (0.89%)	..	..	1 (0.89%)	4 (3.57%)
Slightly satisfied	8 (7.14%)	10 (8.93%)	8 (7.14%)	8 (7.14%)	17 (15.18%)
Moderately satisfied	21 (18.75%)	33 (29.46%)	41 (36.61%)	33 (29.46%)	37 (33.04%)
Very satisfied	59 (52.68%)	54 (48.21%)	48 (42.86%)	41 (36.61%)	36 (32.14%)
Extremely satisfied	23 (20.54%)	15 (13.39%)	15 (13.39%)	29 (25.89%)	18 (16.07%)
Total	**112**	**112**	**112**	**112**	**112**

Table 4. Satisfaction According to Different Items (n=112)

21.- What were the main outcomes of the research? Multiple responses are possible

In this question, the outcomes were asked in order to know which outputs were obtained during the project. Mainly, "Synergies created between researchers and community", with 79 responses (70.54%) was mentioned, followed by "Research dissemination" (reports, articles, etc.), with 72 responses (64.29%) (Table 16). Other options, were comparably less popular, such as "Knowledge transfer activities" with 16 responses (14.29%). In the field "Others", some respondents indicated as a result "Political recommendations with and for society", "A social change", or they did not have any outcomes.

Outcomes	%
Synergies created between researchers and community	70.54
Research dissemination (reports, articles, etc.)	64.29
New findings	61.61
New research activities/projects	50.89
Knowledge transfer activities	14.29
Others (specify)	4.46

Table 5. Outcomes of the Research (n=112)

22.- What were the main barriers to solving community problems through CBR/CBPR?

In relation to the barriers, most respondents pointed out the worst is "Lack of funding", with 43 responses (38.39%), as the main barrier to solving CBR/CBPR problems (Table 17). After that option, "Organizational aspects" (facilities, infrastructures, etc.) is the next one, with 30 responses (26.79%). Almost all responses, mentioning 'Lack of funding' as the main barriers were from scientists/researchers (with 42 responses / 37.50% among all responses).

Other options mentioned where, among others, predominantly the "Lack of time". Other ones mentioned are: "Lack of institutional support" (University), "Lack of interest and mistrust", "Lack of sustainability over time" or "Lack of political priorities".

Barriers	I am a scientist/ researcher	I work at a community organisation	I work at a governmental or policy-making institution	Other	Total
Lack of funding	37.50%	--	--	0.89%	38.39%
Organizational aspects	25.00%	0.89%	--	0.89%	26.79%
Others	19.64%	0.89%	--	--	20.54%
Lack of expert participants' training	12.50%	0.89%	0.89%	--	14.29%

Table 6: Main Barriers Detected According to Surveyed Group (n=112)

Secondly, we will analyse the responses of people who are aware of this type of research, but do not have experience on it.

1.- What is the main reason for not participating in CBR/CBPR?

Respondents who know CBR/CBPR but have no experience with it indicated the main motive was "Never crossed my mind" (35.90%) (Table 18). "Not enough time to do the research" follows that option, with 20.51%. Surprisingly, the less responded answer is "Lack of community interest/engagement", with 1 response. In the "Other" section motives such as "Didn't have the chance" are mentioned.

Reasons	%
Never crossed my mind	35.90
Not enough time to do the research	20.51
Other	17.95
Not the right equipment	10.26
Not having economic support from my institution	5.13
Not relevant	5.13
Lack of community interest/engagement	2.56

Table 7: Reasons for Not Participating (n=39)

2.- In which field do you think CBR/CBPR could be useful?

This group indicated, with 12 responses (30.77%), that "Social Sciences" was the group more suitable for that research. After that, "Technology" has been indicated as the second most popular group with 9 responses (23.08%) (Table 19).

Field	%
Social Sciences	30.77
Technology	23.08
Medicine and Health	15.38
Natural Sciences	15.38
All of the above	10.26
Others	2.56
Various	2.56

Table 8: Fields Where the Surveyed Believe this Research Would Be Useful (n=39)

If we break down this information by gender, it is noteworthy that women consider most appropriate field for applying this research is "Technology", with 5 responses (12.82%), followed by "Medicine and Health", with 4 responses (10.26%). On the other hand, the most voted option for men was "Social Science", with 8 responses (20.51%), and, in second place, "Natural Sciences", with 5 responses (12.82%) (Fig. 16). Another fact that should be highlighted here is that women are more of the opinion that this methodology would be applied in all fields mentioned (7.69%) while men represents a lower value (2.56%).

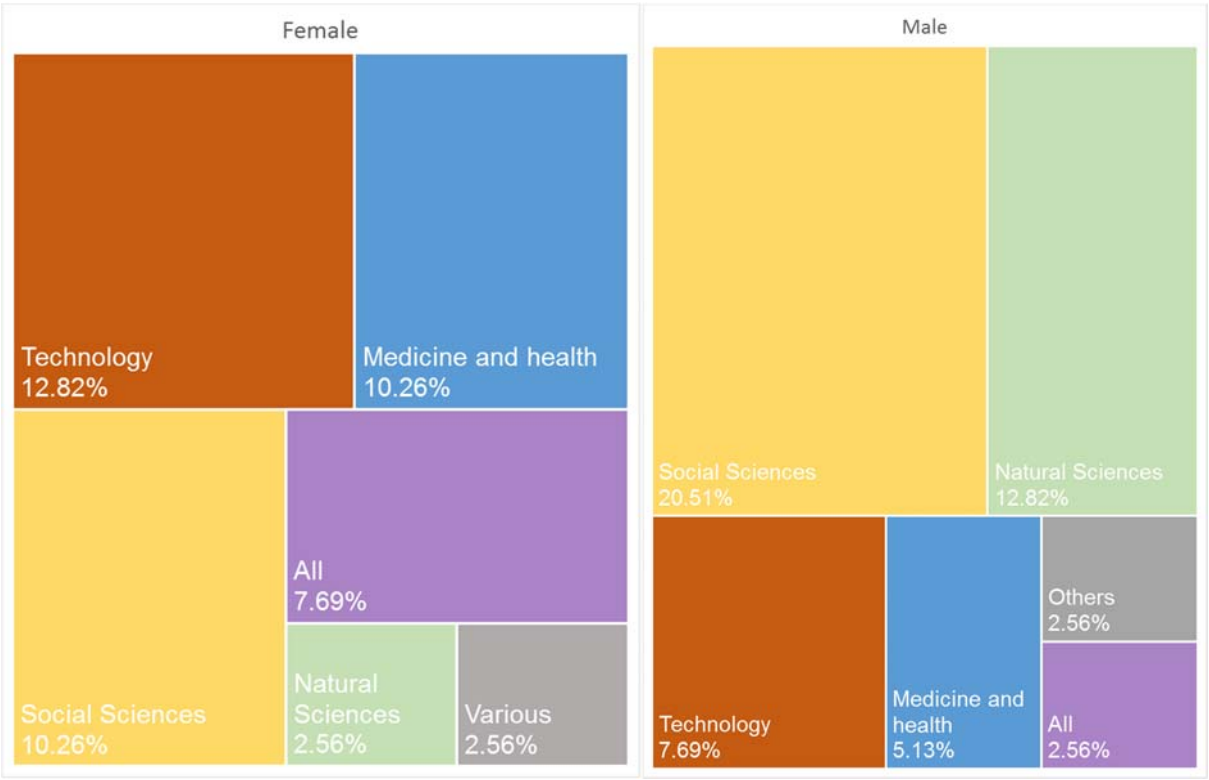

Figure 9: Fields Where This Research Would Be Useful by Gender (n=39)

3.- Have you received CBR/CBPR training?

From the 39 respondents (those who knew this research but had no experience), 38 mentioned they did not receive training in this research.

3a) Would you be interested in training in this kind of research?

In terms of interest in this research, 16 respondents expressed interest in receiving training on this type of research. On this regard, the most voted options were "Yes, for self-learning", with 16 responses (41.03%) and therewith stated their interest in training activities within their job (Fig. 17). Only three of the respondents considered that was "not useful for me" or "I have the information I need".

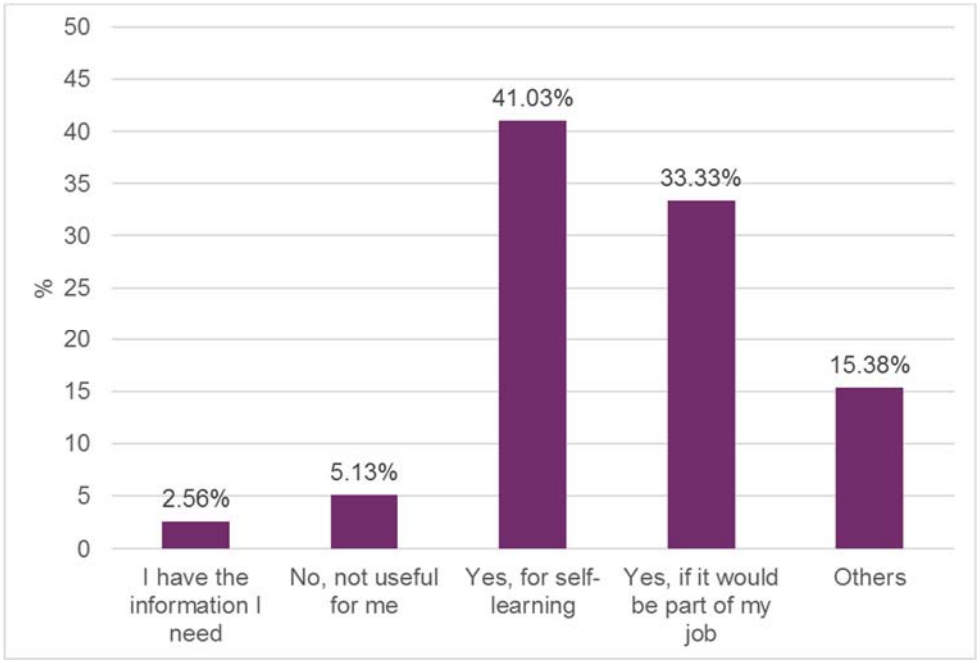

Figure 10: Interest in This Research by the Surveyed (n=39)

4.- In which type of host institution would you undertake CBR/CBPR research?

The mainly mentioned host institution in the surveys was the University/research centre, with 25 responses (64.1%). NGO's were mentioned the second most time with 7 responses (17.95%). Less voted were "Health centre" (2.56%), and "School/college" (2.6%), respectively (Fig. 18). Still, the perception of this group considers the Universities/research centres to be the most suitable places to develop this research.

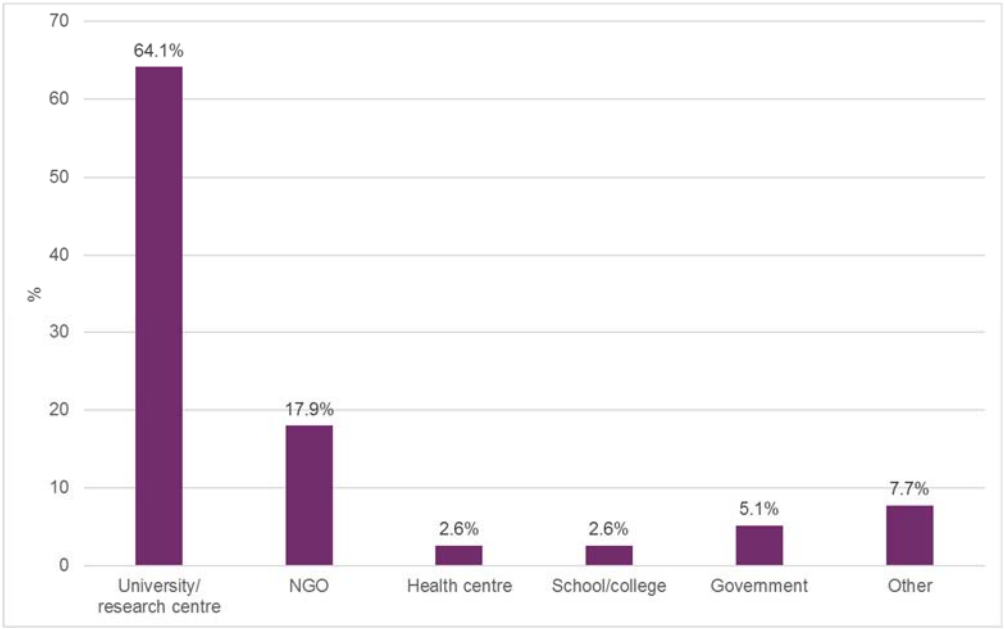

Figure 11: Host Institution for This Research (n=39)

5.- Would you develop this type of activity in your job framework?

Two thirds of this group (26 respondents or 66.67%) considered that they would develop this research in their job framework if it would also happen within their working hours (Fig. 19). However, a total of 13 respondents (33.33%) would develop this activity only on voluntary basis.

6.- Would your organization give its support economic, institutional, etc.) to the research?

About the question of institutional support, most of the respondents indicated that it was "Unsure", with 17 responses (43.59%). On the other hand, 15 respondents indicated "Yes, partial support" (38.46%) and 6 respondents (15.38%) indicated that they would give "No support" (Fig. 20). Only one of the respondents acknowledged, "Full support".

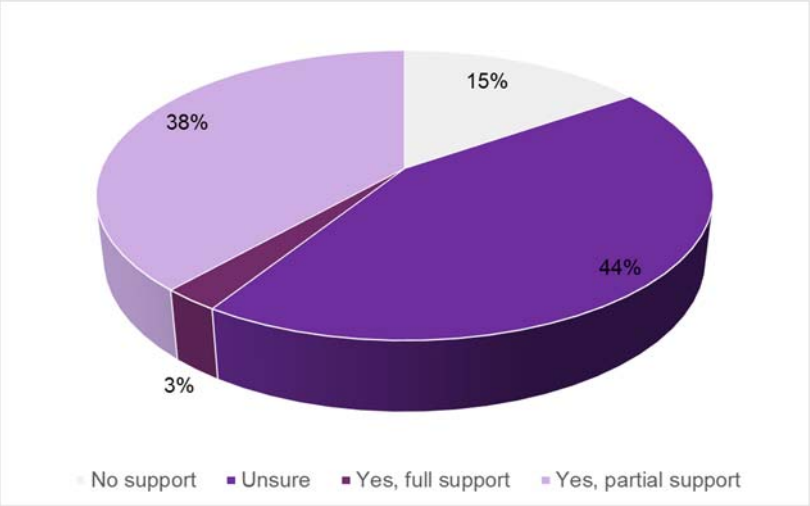

Figure 19: Support from Their Organization (n=39)

2.3. Perceptions

1.- Does your organization face questions or problems that might be resolved by using this methodology?

When asked if their organization faced problems that could be resolved using this methodology, 100 respondents (66.23%) answered "No". It was followed by "Don't know", with 37 responses (24.5%) and "Yes", with 14 responses (9.27%) (Fig. 21).

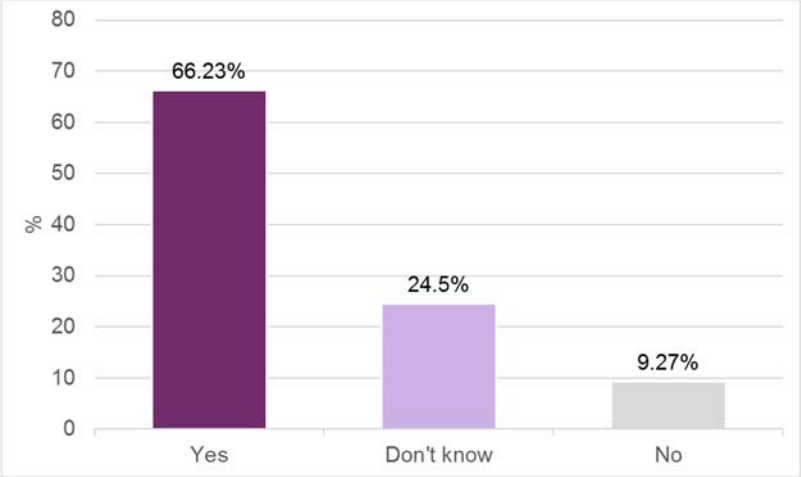

Figure 20: Organization of the Surveyed Dealing with These Issues (n=151)

2.- What type of problems do you think are suitable for addressing using CBR/CBPR?

The problems that the respondents indicated that would be suitable for addressing with this type of research were predominantly in the areas Health, Education, Society and Environment with 42 responses (37.50%) (Table 20). From these 4 groups, "Environmental problems" was the most voted one, with 27 responses (24.11%). Filtered by occupation, it can be concluded that scientists and researchers follow that pattern, as 36.61% of the respondent indicated that those problems are suitable for this research.

Problems	I am a scientist/ researcher	I work at a community organisation	I work at a governmental or policy-making institution	Other	Total
All of the above	36.61%	0.89%	--	--	37.50%
Environmental problems	21.43%	0.89%	0.89%	0.89%	24.11%
Health	16.07%	--	--	--	16.07%
Social problems	14.29%	0.89%	--	0.89%	16.07%
Education	3.57%	--	--	--	3.57%
Other	2.68%	--	--	--	2.68%

Table 9: Problems Suitable for This Research (n=151)

3.- Do you consider it to be important to train society in these methodologies?

Regarding the training of society in these methodologies, 118 respondents (78.15%) indicated they consider it important to train society in the methodologies mentioned. Thirteen respondents (8.61%) stated that they would not train society and 20 indicated they "Don't know" (13.25%) (Fig. 22).

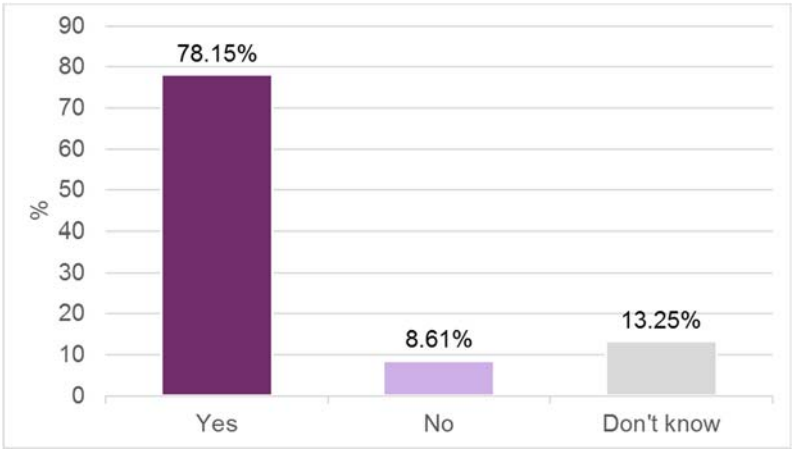

Figure 21: Opinion about Training Society in These Methodologies (n=151)

4.- Do you consider the community as a partner in your professional field?

The great majority of respondents from different fields agreed to consider the community as a partner in their professional field, with 132 responses (87.42%). On the other hand, only 6 respondents (3.97%) did not consider the community to be a partner (Fig. 23). A total of 13 (8.61%) show uncertainty by saying they do not know.

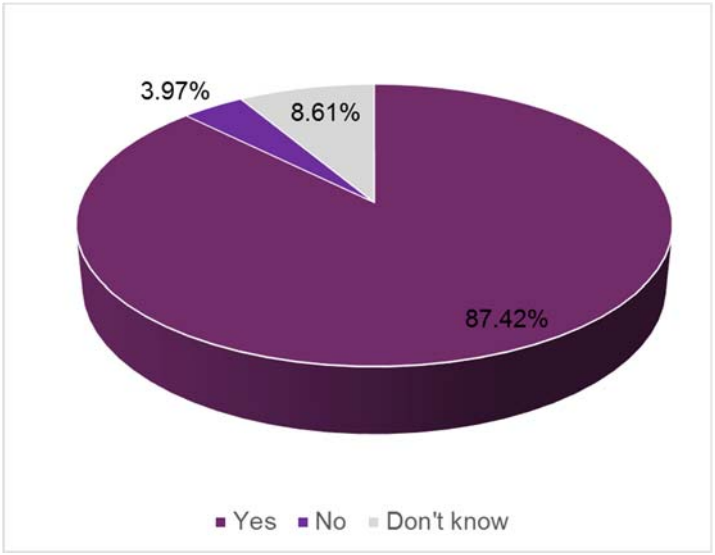

Figure 22: Community Partner as a Full Partner (n=151)

In the "no experience" path, there was an additional question.

5.- What could be the most important impact of community-based participatory research/ science shops?

One of the potentially most important impacts of this research/science shops is the "Increased knowledge of decision makers", with 26 responses (66.67%), followed by the "Improved image of science and research in society", with 21 responses (53.85%), and, in the third place "Improved work of community organisations in serving communities", with 20 responses (51.28%) (Table 21).

	No. Responses	%
Increased knowledge of decision makers	26	66.67
Improved image of science and research in society	21	53.85
Improved work of community organisations in serving communities	20	51.28
Strengthened stakeholder networks	19	48.72
Increased knowledge in community organisations	18	46.15
Strengthened or new research collaborations	17	43.59
Increased knowledge at academic level	16	41.03
More research-informed policy decisions	15	38.46
Influence on choosing directions of future research	9	23.08
Others	1	2.56

Table 10: Most Important Impact of CBPR According to Surveyed (n=39)

2.4. Attitudes

1.- Would you assume the responsibility to start a CBR/CBPR research?

One hundred respondents (66.23%) are of the opinion that they would assume the responsibility to start a CBR/CBPR research (Fig. 24). On the contrary, 7 participants said, "No" (4.64%). One fact that needs to be highlighted is the "Don't know" option, with 41 responses (27.15%).

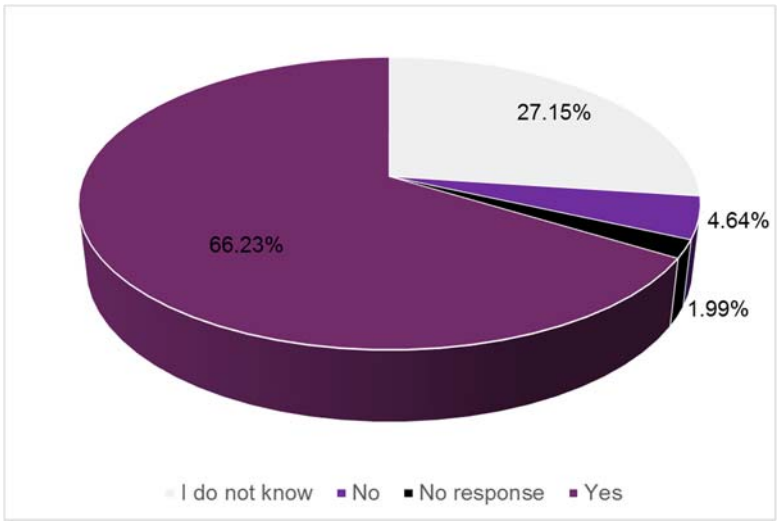

Figure 23: Assumed Responsibilities According to Surveyed (n=151)

2.- Would you be able to guide the stakeholders in the research process generation of research skills)?

Regarding the ability to guide stakeholders in the research process, 117 respondents (77.5%) specified that they thought they do had the ability (Fig. 25). However, 25 respondents (17%) indicated uncertainty by answering "I don't know". Only 9 respondents (6%) indicated they did not feel they had the ability.

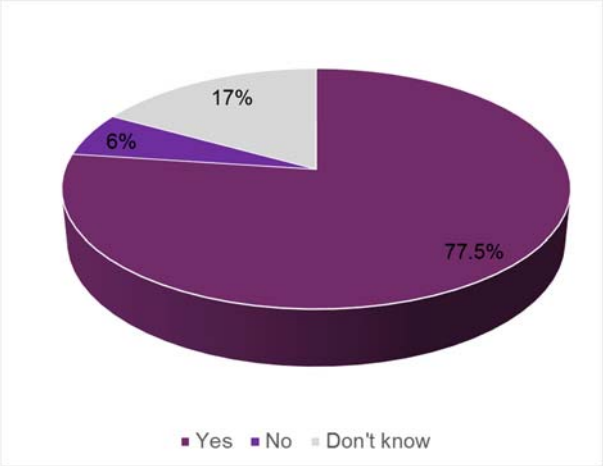

Figure 124: Capacity to Guide with This Research of the Surveyed (n=151)

3.- Do you consider positive the expansion of CBR/CBPR?

A vast majority with 131 responses (86.75%), considered the expansion of CBR/CBPR positively. However, 4 of the respondents (2.65%) thought the opposite. More precisely, 27.81 selected the option "At academic level", 23.84% "At social level" and 6.62% "At governmental level" (Fig. 26).

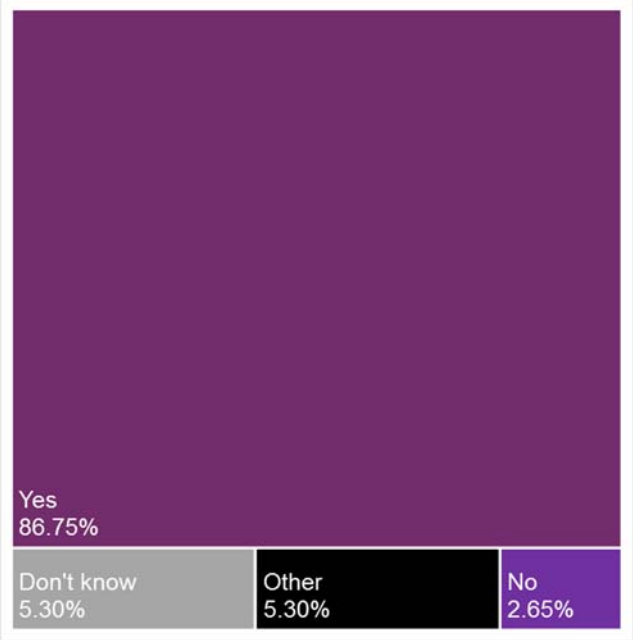

Figure 25: Opinion about the Expansion of This Research (n=151)

4.- Do you consider that this form of research could be used more at the academic level / research institutes / NGO/ government?

One hundred and thirty-five respondents (89.40%) indicated that this form of research could be used more at the academic level /by research institutes / NGO's and governments. Fourteen participants (9.27%) did not know if this research could help (Fig. 27). On the other hand, only 2 (1.32%) do not consider this form of research as useful.

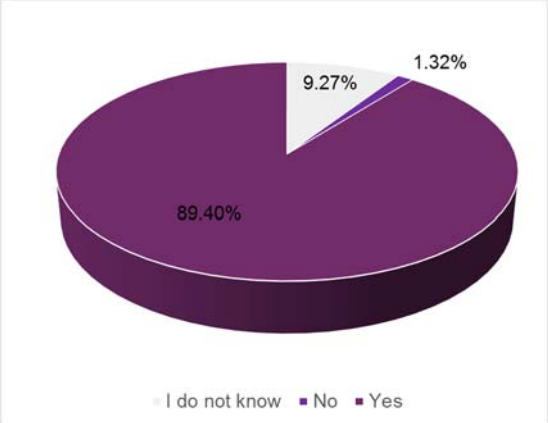

Figure 136: Opinion of an Increasing of the Use of This Research (n=151)

2.5. Challenges

This part was divided into two paths, as happened in the "Experience" part. First, participants with experience (112 respondents) and a group that knew this research but had no experience (39 respondents).

First Path

1.- Would you be involved in CBR/CBPR again?

From all the survey respondents with experience in this path, 104 (92.86%) indicated that they would repeat it again. Only 1 in this group said he/she would not repeat it again. The group who selected the "Don't know" option represents a 6.25% (7 responses) (Fig. 28).

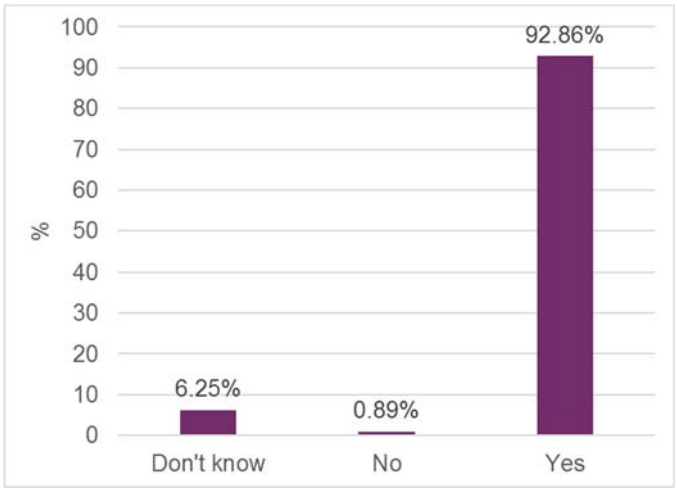

Figure 147: Involvement of the Surveyed in a Future Research (n=112)

2.- What would you change in terms of previous experience(s) in CBR/CBPR?

Regarding the stakeholder groups, 35 respondents (31.25%) indicated they would change aspects such as Stakeholders (the number of participants, their engagement, etc.). One highly voted option was the "Duration", with 22 responses (20.54%) (Table 23). In the "Other" options, some issues such as "Institutional support", "Availability of collaborators", "Sustainability of the project", and "Funding" were mentioned.

Changes	No. Respondents	%
Stakeholders (no. of participants, engagement of the participants….)	35	31.25
Other	30	26.79
Duration (inadequate duration (long/short), too intensive….)	23	20.54
Methodology (not adequate for solving the problem, identifying the problems/needs)	20	17.86
Location (inadequate place: noisy, insufficient capacity, etc.)	4	3.57

Table 11: Principal Changes to Implement in Other Experience (n=112)

3.- If you had the chance, would you like to involve some other stakeholder group, and if so which one? (tick all that apply)

The survey respondents, with 62 responses (55.36%), indicated in this question they would involve "Policy makers" followed by "Civil society group", with 47 responses (41.96%). "Large Enterprises (LE)", with 26 responses (23.21%), was the group that was indicated by fewer respondents (Table 23). In the other options, some of the participants indicated "Foundations and government", "Students" and others.

Stakeholders	No Respondents	%
Policy makers	62	55.36
Civil society group	47	41.96
Non-profit organization	40	35.71
Small and medium enterprise (SME)	40	35.71
Researchers/academics	29	25.89
Large enterprise (LE)	26	23.21
Other	13	11.61

Table 12. Involvement of Other Stakeholders (n=112)

4-5-6.- Do the results of CBR/CBPR that you have undertaken get recognition?

- **Civil Society**

Regarding the civil society recognition, 71 respondents (63.39%) confirmed that the undertaken results of CBR/CBPR have gotten recognition. However, 27 respondents (24.11%) indicated that they "Don't know". In this question, 14 respondents (12.50%) answered, "No" (Fig. 29).

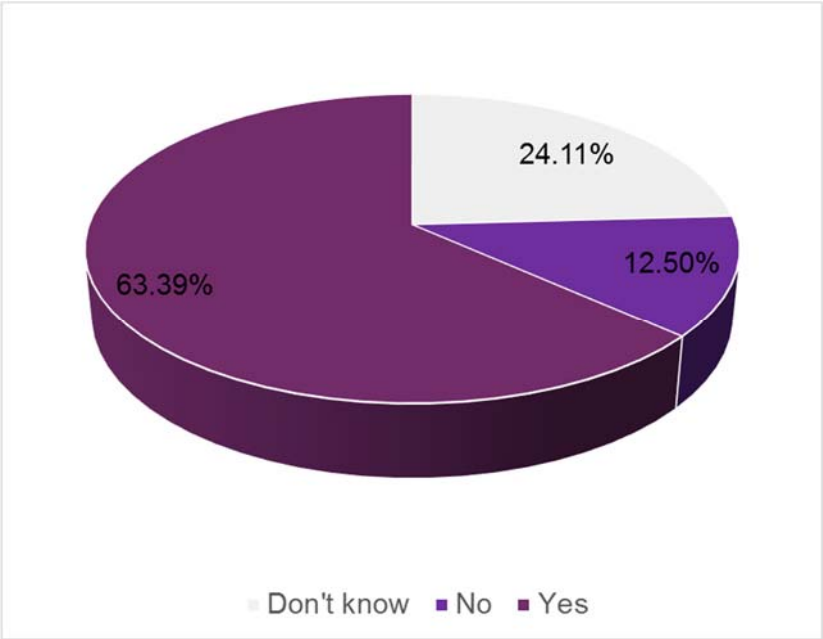

Figure 158: Recognition for Civil Society (n=112)

- **For academic assessment?**

Regarding the question about the recognition obtained by the results in the academic environment, 75 respondents (66.96%) indicated their approval (Fig. 30). On the other hand, 18 respondents (16.07%) were against that idea. Besides, 19 of the respondents (16.96%) indicated they "Don't know".

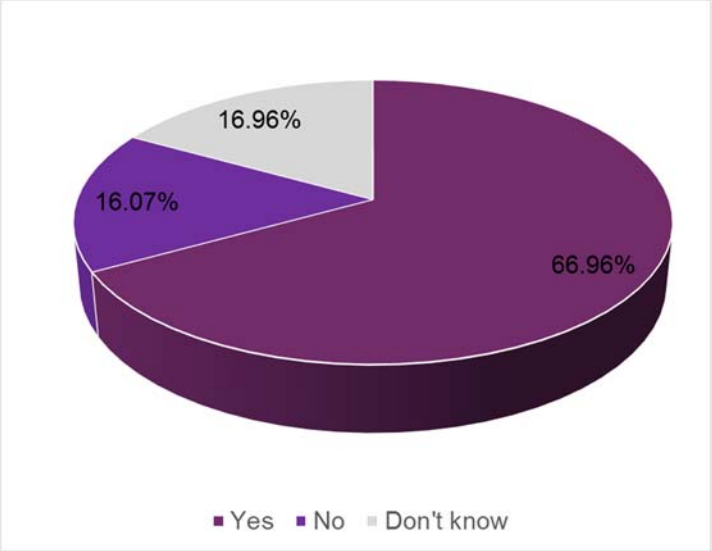

Figure 29: Recognition for Academic Environment (n=112)

- **From policy makers**

Respondents expressed less trust in policy makers than within the academic environment. Fifty-nine respondents (52.67%) believed they had recognition, however the option "No" was chosen by 26 participants (23.21%) (Fig. 31). Also, from their perception, the "Don't know" option had 27 responses (24.10%).

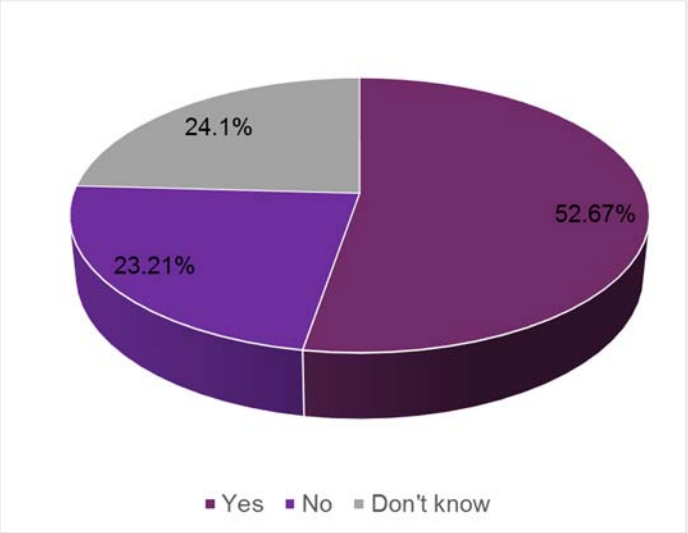

Figure 160: Recognition for Policy Makers (n=112)

Second Path

1.- Would you involve policy makers in your research?

As far as the involvement of the policy makers is concerned, a total of 26 respondents (66.67%) said that they would (Fig. 32). However, only 2 respondents (5.13%) affirmed they would not do so, while 11 respondents (28.21%) answered that they "Don't know".

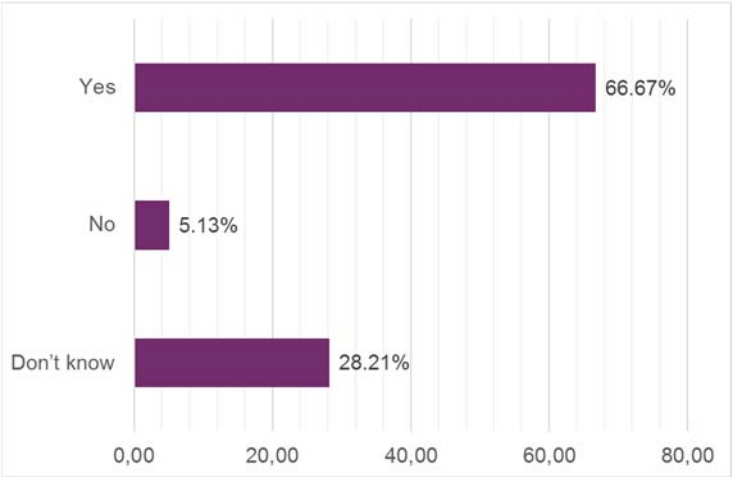

Figure 171: Possible Involvement of Policy Makers (n=39)

2.- Are you of the opinion that the results of CBR/CBPR research would get recognition from policy makers?

Related to the last question, we asked if they thought the results of this research would get recognition from policymakers. Almost 50% approved the recognition by policy makers with 19 responses (48.72%) (Fig. 33). A similar share of respondents, with 46.59% (17 responses) expressed uncertainty saying, "Don't know". Only 3 respondents (7.69%) considered that it would not get recognition from that group.

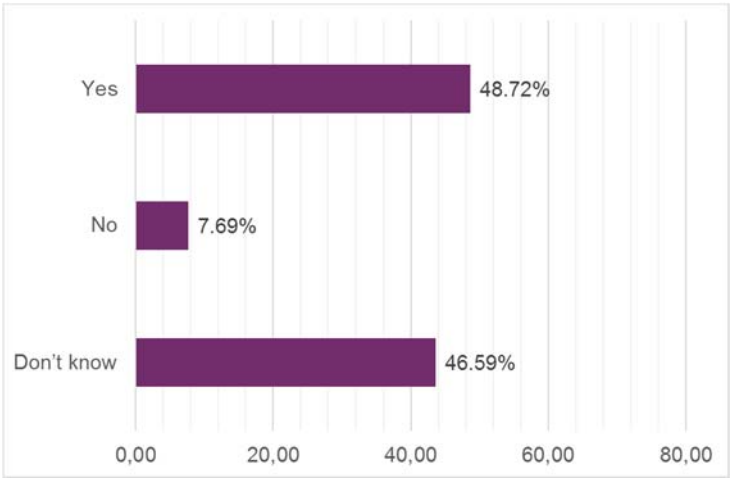

Figure 182: Recognition from Policy Makers (n=39)

3.- If you had the chance, would you like to involve some other stakeholder group, and if so which one? (tick all that apply)

Regarding the involvement of stakeholders, a total of 34 respondents (87.18%) indicated "Small and Medium enterprise" (SME) (Table 24). It is followed by "Researchers and Academics", with 27 responses (69.23%) and "Policy makers", with 25 responses (64.10%).

Stakeholders	No. Responses	%
Small and Medium enterprise (SME)	34	87.18
Researchers/academics	27	69.23
Policy makers	25	64.10
Others	20	51.28
Non-profit organization	17	43.59
Large enterprise (LE)	15	38.46
Civil society group	1	2.56
All	1	2.56

Table 13: Involvement of other Stakeholders (n=39)

3 Results and Analyses from the Interviews

In the framework of the SciShops Project and in order to achieve the goals included in WP 3, we conducted qualitative interviews with 32 stakeholders who conduct community-based research to understand their perceptions, experiences, attitudes and challenges on CBPR.

The aim was to conduct a broad overview to identify experiences with community-based research. In this sense, we included individuals who consciously follow the CBPR approach when conducting research in community settings (experts in CBPR), as well as individuals who do not identify themselves as CBPR experts but used a CBPR approach in their research. Our eligibility criteria were that the respondents have already conducted or haver participated in community-based research.

The research partners were required a list of experts with stakeholders from different countries, research areas, institutions and gender, in order to obtain as much diversity as possible in perceptions, experiences and attitudes. At the end of each interview, we asked for recommendations and challenges to be implemented in future CBR/CBPR activities.

The duration of interviews was not always precisely indicated in the record of the conversations, however was on average 1 hour. An expert interview guide has been developed for helping with the interview (Appendix 2). The questions were organized into four sections: Experience, Perceptions, Attitudes and Challenges. Depending on the responses of the interviewed people as well as on their attitude, not all questions were asked. Also, a consent form was required before each interview.

3.1 Interview Respondents' Profile

Regarding the interview profile, experts from eight countries were interviewed. Among those, ten were male (31.25%) and 17 (53.12%) were female. In relation to their occupation, 19 were researchers (59.38%), 8 (25%) were from the community organisations and 2 (6.25%) were policy makers and were classified as "Others".

Country	Male	Female	Not Indicated	No. Interviews
Belgium	--	1	--	1
Cyprus	2	2	--	4
Germany	--	--	4	4
Lithuania	--	4	--	4
Romania	--	--	1	1
Slovenia	4	3	--	7
Spain	4	4	--	8
United Kingdom	--	3	--	3
Total	10	17	5	32

Table 14: Number of Interviews by Country and Gender (n=32)

Country	Occupation Researcher/ Scientist	Policy Maker	Community Organisations	Other	No. Interviews
Belgium	--	--	--	1	1
Cyprus	4	--	--	--	4
Germany	4	--	--	--	4
Lithuania	1	--	2	1	4
Romania	--	--	--	1	1
Slovenia	--	2	5	--	7
Spain	7	--	1	--	8
United Kingdom	3	--	--	--	3
Total	19	2	8	3	32

Table 15: Number of Interviews by Country and Occupation (n=32)

3.2 Experience in CBR/CBPR

Understanding the experiences

Regarding the expert experiences in CBR/CBPR described, the interviewees depict a broad range of community-based research experiences with a wide variety of research topics, community partners, approaches, stakeholders and levels of engagement. Based on their answers, the topics addressed were diverse. Among the most significant are, for instance, finding a site for the construction of the low- and intermediate-level radioactive waste (LILW) repository, sustainable mobility, civil protection or female mentorship. In the interviews different experiences have been described, that show the diversity of topics:

One of the experts in CBR/CBPR interviewed describes their activity as *"worked on a project that aimed to bring immigrants and researchers closer together for the development of an application. This application could help the integration of immigrants into the society by helping them understand environmental practices of the local community like recycling".*

Another activity based on CBR/CBPR focused on the mentoring of female students by women with executive experience on a top-level. This was a bottom-up type initiative and started at the Royal Academy of Engineering in collaboration with the Polytechnic Universities. It was launched because in this institution there was a decrease in scientific vocations among girls. The objective of this initiatory mentoring is to accompany the students in their last year of university, prior to their exit to the labour market. The first edition was almost unexpectedly successful because approximately 200 senior managers and students participated, something that is not easy to achieve.

Innovative experiences with the CBR/CBPR

One innovative experience with the CBR/CBPR approach consisted in **providing common spaces** to facilitate the people's participation so that they "can enjoy practical and scientific work". It was about to "provide the space and the network in order to discuss information with each other, spend time together, talk, and the investigation of knowledge transfer".

In the same line, another researcher describes her activity with the CBR/CBPR approach with the following words: *"the main objective of the research project was to **promote interest in science** among*

young people and seek to commercialize innovations resulting from the interaction of different agents. In this sense, the project provided meeting places open to citizens. These meeting points used to be spaces in universities, museums, municipal town halls, local association halls, etc.". In her opinion, *"these open spaces favoured the rapprochement between groups that a priori do not cross as they are: ordinary citizens with researchers, scientists, technologists and artists"*. Another important aspect of this interaction is that not only they met to talk, but they also had valuable scientific material at their disposal, which allowed them to *"interact directly with something in their hands".* Across Europe, more than 5,000 participants were involved in 15 modules, 9 for adults and 6 for youths between 14-17 years.

One fact that should be highlighted at this point is the **involvement of university students**, as we have seen in several experiences from the interviews. This is the case in Spain and Romania, for example, where the students in their last year of studies or in postgraduate studies such as Master's, work in CBR/CBPR activities with the community. In these activities, they try to solve the questions/concerns/needs that citizens have. Students get from the research institution a research question to solve: *"The research projects are often finalized with recommendations or solutions for the questions raised by the civil society".* A specific case showed us how *"students develop activities that allow them to work with citizens in general or with specific groups in their environment".* These collectives (organized or not), are those that make known to students the needs they have, as well as the specific problems they face. The students seek possible solutions from the university. The interviewee said that they could be a Science Shop at a small scale. A concrete case that she commented described how *"a group of students approached a prison to implement different participation activities in which the prisoners raised their concerns, and the students from the academy responded to those demands".*

Working in a Science Shop

As a result of the interviews, we also obtained input from people working in different science shops in Europe. The first was defined as a science shop organised by a non-university high school. The projects of this science shop were about applied natural sciences, environmental design and engineering. These topics were also related to sustainable cities and inclusive design, and they had to include research aspects. For the selection of the research question, the science shop tried to identify if the problem addressed the "public interest".

The second experience with a Science Shop was *"about an NGO publisher of books intended for both blind/sight-impaired and seeing children that wanted to know what is published in other countries and what is to learn from them".* To do that, they *"contacted in a forum for non-governmental organizations and approached the science shop with the idea of research".* The research was performed by students on a volunteering basis and a researcher (director of the science shop).

The third practice was organised by a non-profit institution which performs research, as well as social projects and science shops. Its research is mainly based on Community-Based Research (CBR/CBPR). Usually, the research questions come from community organisations, but people or organisations are not involved in the research process. The main purpose of this institution is to provide free research services for NGOs, contributing to the **development of civil society** and the **improvement of services** by NGOs to society.

While Europe was a reference point in many interviews, not all the experiences were developed in European countries. We found one participant who describes an experience in other countries: *"I have participated in several projects in Africa, Mexico or Nepal. These projects were community-based, and mainly they have been focused in rural areas with local participants, grassroots organizations, mainly agriculture and women's rights, to collect primary data: Start with and rely on the community"*. Among the activities carried out were "validation seminars with participants to review findings, incorporate these into findings".

Approach and size of groups

Approach adopted

Regarding the approach, the majority of the interviewed highlighted the fact that the approach was **bottom-up**. In other words, the society is the one that proposes the problem to the institutions. However, some research within the United Kingdom considered that this approach to be the most suitable because it was "demand-driven, rather than academic-driven so that's good". Community-based organizations should surface issues and problems: *"researchers can respond to these demands".* One thing needed is commitment and mutual benefit between community and researchers. In some other cases, the research questions are addressed by the community organisations to the society. Another researcher highlighted that it was not a problem that the community provides information for his research, but that it rather does which society tries to solve.

One of the interviewees (expert in CBR/CBPR) understands that there are two ways to apply it: top-down and bottom-up; that is, society raises its needs, problems or concerns that need to be solved, or it is the institutions (universities, hospitals, professional groups...) that detect a problem and seek solutions. He considered that the two approaches involve society at different stages, with a greater or lesser level of involvement and responsibility. In the institution where he works *"it is the society that leads the investigation, raising the problems, needs or shortcomings"*. In the framework of founding, they have offered some contacts to the locals, and they are trying to solve the problems raised by society. Sometimes issues of a social nature are addressed, but also scientific aspects that concern citizens and they work at local, national and international levels. In this sense, the services provided also vary widely, so when they come to projects on a local scale, they provide premises, offices, laboratories, infrastructures, etc. At a national level, for example, they provide counselling services or accompaniment.

Other researcher mentioned that CBR/CBPR is "transdisciplinary research processes, from the beginning on in close exchange with practice partners (from civil society) and participatory development of the issues".

Size of groups

In relation to the size of the groups of citizens, they all agree that it will always depend on the topics to be discussed. However, they point out that the minimum number of citizens would be 5 and the maximum, 50. **The ideal number for a group could be 20 citizens**. Some other experts are of the opinion that "The size of citizen group depends on the research and on the funding. It can span from 20 to 500. But in order to find, for example, a group of 200 participants, 1000 people might be approached".

Regarding the size, it was mentioned that it depended on the stage of the study. For instance, the stage where the perceptions or ideas are collected is not the same as the stage to achieve a consensus.

Advantages and barriers

Advantages

Regarding the advantage of these research experiences, some of the interviewed mentioned "transparency, flexibility and active involvement of the public". Other interviewees from a non-profit organisation, mentioned "impartiality is seen as one of the main benefits of this research in comparison with the situation where the research would be done by the company itself because it is done by students/researchers from outside". Apart from it, some other advantages were mentioned when comparing with other professional research institutions, whether the research was done by these groups, the enthusiasm and engagement of the young people (students), apart from the reward.

Barriers

So many barriers were mentioned by the interviewed. A great majority of them pointed out the barriers with the community in terms of communication. First of all, it is important to understand that "each different group in the community has different needs, different motivations and different expectations; therefore, according to the interviewee both parts (community and researchers) need to be trained when dealing with CBR/CBPR".

Regarding this matter, they highlighted various issues such as the **lack of identification with the problem** or **the real connection to the problems of the community,** or even **the citizens' not adopting the approach as their own** and **the lack of trust among partners**. Also, other issues are more related to the terms of the participation. They consider there is a shallow citizenship participation in implementing democratic and transparent procedures. The reason may be that the citizens organize themselves when the issue/research directly affects them, not because they are concerned about the merits of the matter. It is what is known as NIMBY (an acronym for the phrase "Not In My Back Yard"). Regarding citizenship, others even mentioned that one of the main barriers is the **lack of scientific knowledge of the community**. Another problem is that society only sees the **citizens' participation in a single way: people are used in research, but they do not participate in it.**

Other researcher points out that the main limitation is **getting citizens, or any other group, involved** when the strategy is bottom-up. Normally, when it is the group of researchers who decide the priorities or strategies that will be developed through the CBR/CBPR approach, they encounter many problems to identify groups that want to participate. Also, once they participate, they do not always do it in a motivated way.

Some of the interviewed mentioned that these projects were not highly participatory. Another limitation that some interviewed pointed out is the "fatigue of public engagement", that is, the **limited participation** of the public. To overcome this, "many of the activities had as partners the schools, and schools where the motivation is greater".

Another barrier to which experts constantly refer is a **lack of trust** caused by the changes in management, as seen from the research results. And that causes "lack of interest". One of the interviewees considers that "the lack of involvement of the public could come from the lack of interest of the affected population as well as the low social status that makes them not to ask questions". Also,

some other mentioned that this lack of interest can be caused “when the outcomes and benefits of a research are not obvious to the community and other stakeholders”. As some interviewees pointed out, it is essential that participants feel motivated with the activity and feel that, one way or another, participating in it will affect the improvement of certain aspects of their lives. Thus, one of the interviewees who worked with a group of immigrants said, “they had basic daily needs that were more important for them than recycling (that was the topic addressed in the CBR/CBPR research) and the researchers were focusing on these aspects”.

Regarding the research related to students and the elaboration of their master's thesis, they mentioned that in some cases, some study programmes from some universities considered the topics that they presented as not sufficiently “scientific” or “theoretical”. In this regard, some other highlighted as one of the main barriers the demarcation of the research question because they are sometimes too general or not appropriate for a thesis. One of the interviewees stated that “the biggest problem that is detected, both in the work with young people and with the adult public, is how to get to materialize the ideas that are proposed. They were very ambitious ideas, which in some cases did not fit the budget of the project, very broad topics that complicated getting to a final result”.

As far as the methodology is concerned, some of the experts mentioned that CBR/CBPR, which is transdisciplinary, takes a lot of time and is often not possible during project runtimes and “to equip the practice side with sufficient resources (financial/temporal)”. To solve that problem, the interviewed even mentioned some solutions such as “good expectation management” and “reduce expectations”. Also, another barrier is the little knowledge about this kind of research. Other even mentioned the lack of knowledge on this research and, consequently, the difficulty to communicate their needs in terms of research.

Some other concerns focused more on the relationships between community and academia. The main barrier to this society-academia relationship is whether and how directly could a societal challenge have been solved. Usually, research output cannot directly be applied. In that sense, “there is a gap between what society expects as a result and what the researchers can offer”. Also, the society is not currently aware that the citizens can benefit from this relationship, therefore, is important to train the society but also the researchers, and this is something that the interviewee thinks as a very important issue. Regarding researchers, another issue is “the lack of trust in the researchers' group. The community needs to be convinced that the research will be in their favour. Objectivity, impartiality and equity are the main characteristics that this kind of communication needs”. Another problem mentioned regarding researchers and community is that, for example in some careers, they are not “interested in sharing”. For example, one of the interviewed mentioned that in the medical field you also can’t always get medical reports, even if you get consent, and hospitals do not want other hospitals to know about what others are doing.

Other arguments focused more on the **lack of support** from the researchers’ institution. One of the interviewees stated that “participation in CBR/CBPR activities has little recognition, lack of time to develop their academic and scientific activity and reconcile family and work life”. He thinks it hurts him in his research career because it takes time to publish, etc. It is exhausting, and it is one of the complains that he perceives from many people who work in this. In this regard, even some of them mentioned the rigidity of university structures which are not prepared for this kind of research (support or funding). On the contrary, in other case, also another researcher from the academic field stated that “in our case, the institution where she works, a research organization, positively assesses the

participation in activities of this type, not only with good words but also in evaluations, in promotion processes and professional advancement". Another barrier detected is the lack of rigour from faculty. Some of the respondents consider the University is not very sensitive to these topics and do not see the University, for example, as a closed entity which provides help to solve real community problems.

Other barriers indicated were "on the side of the community-based grassroots organizations – they have too **short a time to see impacts** (i.e. for Gates Foundation) – agriculture takes a long time! Training takes several seasons. It is very difficult to get results quickly. Also, results are not as reliable as they should be. Qualitative data are too hard to cross-check –this is time intensive. If you want to work with community-based organizations, the best way to get results is a longer time frame". As a solution, the researcher suggests longer projects: ten-year projects, for example.

The **lack of no financial support** is highly remarked by all the participants, especially, for long-term activities that in some cases, the interviewed mentioned, are solved with "small grants". Besides, in most cases, it is a voluntary job, which depends on the "goodwill" of those involved. In some cases, this problem has been solved by giving some money.

Searching the success and outcomes

The evaluation of success is seen as one of the most difficult parts of the research because it is not clear what must be evaluated and how to score it. One of the experts mentioned the evaluation is based on "the scope and the management proposals executed". Some other considered as one indicator for evaluating the quality of the outcomes, for example, the quality of a master thesis.

Overall, despite the respondents showed a large variety of experiences, a majority of the interviewed said that they considered **their community-based experience had been successful**.

Regarding what is considered a success, some of them pointed out that the level of success is difficult to be evaluated because it depends on how you define it. In that sense, several respondents felt that **traditional measures of research success were too limited** to judge the success of the community-based research. For example, one of the interviewed said that some CBR/CBPR research could be considered "successful" if an "NGO improves its activities and has an effect on wider society".

Although not all the objectives were met in the research, intermediate milestones are also considered a success, given the difficulty of involving so many different actors in the CBR/CBPR processes. In this sense, some, for example, claim that their activity was successful, at least in "in terms of building trust and knowledge development among stakeholders involved". In this line, another aspect that is considered successful is the fact of publicizing the CBR/CBPR methodology itself to find solutions to problems that affect many groups. Regardless of reaching conclusions or concrete solutions, the fact of bringing together stakeholders/affected by an issue and put them working together in the search for solutions is already a success: it was a success "since we managed to bring in the debate". Regarding this point, one of the interviewed mentioned that the success of the activity was the "relationship built between researchers and patients' group leading to the successful completion of the study". They understand that in the search for solutions through methodologies CBR/CBPR is efficient in creating more friendly attitudes to the issues that arise.

Some others mentioned that the success was relative. In other words, they had managed to find solutions for all the stakeholders involved in a specific topic, together they have been able to understand all the perspectives and together they had tried to achieve a common goal agreed with

much effort. However, the interviewees pointed out that many projects stayed in that first stage and a lot of projects did not continue from this point and it was difficult to implement the solutions they had found. “Results were not fully implemented”.

Another expert believed that with this research some new issues or research questions had arisen, and that could be considered a success. One project that is considered successful was a study in the city of Ghent about female residents at the homeless shelter of the city. They realized that women did not feel safe in the showers during the night and some changes were implemented to increase the security.

Some highlighted outcomes

Another aspect dealt with in the interview was the outcomes to determine if there had been some tangible or intangible results of the collaboration. Some of the experts considered that traditionally, the outcomes such as publications as an indicator of success were very important for the academia, and sometimes this was not achieved with this research. Even some highlighted that the research had been a success, but it had not produced any scientific results.

Some of the outcomes mentioned in the interviews are listed below:

- Sharing of data and suggestions to improve the process.
- Scientific publications.
- Videos.
- Guidelines, guidebooks or management proposals on the topic of the research activity.
- Application of regular surveys or media reports and comments.
- A feasibility study and a report of the measurement.
- Books regarding a subject disused doing the research.
- Master theses.

Others, apart from the research reports obtained during the activities, mentioned a step further, i.e. discussion with the organisation about recommendations that could be done further with the research results.

Regarding the science shops experts interviewed, one of them mentioned they did not perform a formal evaluation of the impact but “the clients are always asked what they are going to do with the results” (and are the ones selected with an application). In another case, they mentioned that, although there were no evaluation criteria, “the organisation is always, in an informal way, consulted by telephone or through a brief evaluation form”. Other expert interviewed and involved in a science shop, considered that the science shop did not have a formal assessment and the only criteria were the “project’s quality”, ensured by the researchers. Also, it was mentioned that another way to evaluate is through close relationships with the formal clients.

Resources: Funding and Environment

Funding is seen as one of the main problems for developing this research. According to the interviews with the experts, some patterns can be developed.

For instance, in the case of NGOs, the funds with which they financed the activities were those of the institution that internally decided to dedicate them to this activity: “applied projects focused on the

activity". In another case, they mentioned the NGO provided funding from a previous project and distributed it to the participants (in this case, students) in the study.

In the case of the community organizations, the funds with which the activity was financed were public. The civil initiatives were the ones that showed a more varied profile regarding the origin of the funds. In the first place, they not only had one source but several, and they are both public and private (local and regional administration, funds from industry...). It was at these institutions where the work was of a more altruistic nature and the participation of many was in their "free time".

Also, in the case of some science shop, they responded in the interviews that the funding was limited. For example, a Science Shop in Brussels was partly funded by the university, and partly by EWI (department economics, science and innovation of the Flemish government) and is evaluated each year. At this organization, only one person was working one/two days a week. For the research activities, no funding is required. In another science shop at a school in Lithuania, they mentioned they work with minimum resources. In the beginning, everything was planned to run without additional financing but then, the leader of the science shop convinced the deans of the faculties to allocate some money to pay the teachers involved in the projects. Regarding the resources (material, etc.) it was the responsibility of the social partner.

As far as the researchers interviewed are concerned, many of them specified that there was no funding for them. Even one of them commented their experience in the model of funding: "hire academics to do research design, then get local participants, grassroots organizations, mainly agriculture and women's rights – these organizations then get the funding". This model is considered by the researcher as a successful model "academics are cheaper than consulting firms, and academics are higher quality".

About the place where the research was conducted, they mentioned Universities or research centres in most of the cases, but also Medical Federations, schools, NGOs', etc. #

Training

The most surprising thing in this section was the **lack of training on CBR/CBPR** research of the candidates (and participants). What many of the interviewees highlighted is that "they have not gone through a learning process in these methodologies, but it is through their own experience that the participants have learned". Some others noted that although they had not had specific training in CBR/CBPR, they had participated in training courses where modules had been taught and where they discussed how to work with the CBR/CBPR approach. Others qualified that this training was done in collaboration with other centres, thus enriching the learning process itself, incorporating different perspectives and interests for the CBR/CBPR.

Some of the experts, in regard to European projects or others, mentioned they had been involved in some initiatives such as the development of a handbook for CBPR or Living Knowledge Toolbox. Also, after their experience, they had participated in conferences/summer schools. In the science shop experiences, mentioned as a training experience, some teachers commented they had been sent to learning visits to other science shops in Europe (in an Erasmus project framework).

Regarding the participants, some opinions focused on the fact that there was a lack of training of the PhD students involved. For example, one of the interviewed working in the medical field, mentioned the "students are no prepared to treat with people that sometimes are not stable". Other expert considered this training on CBR/CBPR as basic in public health education: researchers in this field are

supposed to be "trained on how to approach the community, on the form of communication with the community and on how to build trust".

3.3 Perceptions

Type of problems

Regarding the kind of problems that are more suitable to be addressed using CBR/CBPR, responses from the interviews showed that all topics can be treated with the CBR/CBPR approach. Even one of the interviewed argued that "all topics are suitable because society confronts problems in all areas".

Some problems mentioned by the experts are the following: environmental (contamination, waste management, etc.); biodiversity; public health; natural resource management; sustainable community energy systems; analysis of community attitude towards development (in rural areas); legal procedures, e.g. situation of hazardous installations, social justice, social safety and security, civil protection, specific economic interests, minorities, etc.

Others could be: governance, environmental problems, gender issues, sustainable shopping, landscape studies, responsible mobility, water management, the environmental impact of mines, light pollution, etc.

One interesting fact mentioned by one of the experts is, despite the fact that this research can be used for so many topics, it cannot be used in large-scale studies in a science shop.

Regarding transverasality

In the great majority of the interviews, the experts considered that CBR/CBPR was transversal to all disciplines because it is "useful in solving common issues in different areas" and "it can be applied to a vast selection of topics". Another motive to justify its transversality is that, in general, it is open to all kind of sciences that can contribute to this method. Other researchers were of the opinion that CBR/CBPR was a "more integrated research" which addressed interrelated issues like "agriculture and environmental resources, for example, are related, or women and farming, or food security, whether children are suited for farming or school – here, transversal is applicable".

Some researchers agreed that "an extra effort needs to be applied to research in specific areas to boost the economy and make an impact in society. Problems arising from the areas of health, tourism, energy, construction and agriculture need an extra effort in research but are also suitable to be addressed using CBR/CBPR".

Some other researchers were more reluctant to this idea. Some of them considered this research was only applicable in social sciences, not in other sciences.

Another researcher mentioned that in some disciplines it is easier when it takes fewer resources and finances. Some of the experts argue that, in the health field, this approach can be used more easily. Public health is a field that is closely related to the public and therefore research in this field contributes to the local communities by offering scientific expertise. When someone studies public health, training on CBR and research ethics are a basic component of public health field education. In this line, "Researchers in this field are trained on how to approach the community, on the form of communicating with the community and on how to build trust. Researchers are trained on what kind

of answers and what facts they can share with the public and how to prepare FAQs and brochures and communicate scientific results". In addition, some other experts considered that the "Environmental Science" area is one of the fields with more options to successfully develop this research.

Besides, for some researchers it is not only the topic that is transversal; all the professionals involved in different fields and backgrounds can contribute with their knowledge on the projects.

Community as a full partner and awareness of CBR/CBPR in society

All the respondents perceived society as a full partner and, in this sense, considered important that it should be trained in CBPR/ CBR. Some sentences show the value they give to training: "it is an effective way of implementing democracy in decision-making" or "I think the society should be very much aware of the importance of CBR". In this sense, other researchers reinforce this idea by saying: "the community can be a full partner to CBR/CBPR". However, "the community and the researchers need to get trained on the methods and approach of CBPR". Training is important for both parts (researchers and community), but also for other stakeholders like policy-makers, industry etc. Each group must be able to understand the needs of the other groups and have reasonable expectations from any possible collaboration. "It is important to generate" contributions for a good teamwork in the topic through formulating questions and answers.

What is desirable for all is for the community to become a partner. "It is hoped that the community could become a full partner, but more appropriate training and discourse on the methods and approach of the research needs to take place".

The idea that CBR/CBPR is transversal is repeated in most of the interviews: "can be applied according to the interviewee on various fields. The community can be a full partner in CBR and this synergy is very important and effective for all the stakeholders". However, it is suggested that "there should be a common background in language / abstraction ability / reflexivity while age and cultural background makes little difference".

The most important thing is that all the interviewees coincide in affirming that **the community is a full partner in the field where they developed the CBR/CBPR activity**. In this sense, we find affirmations of the type "Yes, a community provides invaluable specific / local information needed in the research; only through the participation of the community can success can be expected. The problem we deal with is [a] problem from [the] community" and we cannot find a solution to that problem without the community itself. Others go further and in addition to considering them a full partner, they believe that it is a "responsibility" of the community to participate in CBR/CBPR processes. Others comment that it is a "precondition" to carry out the activity or "science and research have to address society and try to solve their problems, concerns, needs, in a way that contributes to improving their quality of life, in this sense citizenship in general, is a full partner in this type of methodologies".

Very few restrictions on the participation of citizens as full partners in the CBR/CBPR processes have been identified which are reflected in the following comments: "The community participated on the whole process, but sometimes it was only CBR instead of CBPR". "The community can be a good source of information but there is not always commitment on their part and this makes the obtained data unreliable". "Yes, without a doubt". "The community can be a good source of information but there is not always commitment and [it] makes the reliability of the data not good". Except for these comments, the rest of the interviewees considered the company to be a full partner.

Another respondent understands “that the participation of citizens in scientific activity can be compared to a ladder. As you go up steps, the degree of participation increases. This participation can range from punctual collaboration to deliberation, cooperation in certain stages”. In his opinion that is fine. However, he points out the risk that people may feel unmotivated, dissatisfied because they understood that they had been used to collect information, even biological samples, and then they had not received any kind of feedback.

Regarding the awareness of this research in society, some of the experts considered there are a major awareness and presence at certain levels in society. For instance, organisations are very enthusiastic about the concept. However, it seems an “exotic idea” to some researchers.

Training in your CBR/CBPR experience

Regarding the experts' opinion in training on this type of research, the response is positive. Some of the experts even believed that “in order for the CBR to be effective, the society needs to be trained”. However, to do that, society needs to understand scientific research and research skills. And they need to be informed and “updated at all research stages, from the design, the starting, the middle face and the outcomes. It is not easy and needs extra effort to convince the community to trust the researchers and follow the research”. Another researcher even mentioned that, after training, they would “not just like to be enumerators, they would like to be more empowered”.

Some of them mentioned the training would have improved the experience of all the participants, both of the organizers' themselves and of the specific social groups' invited to participate.

One researcher considered that, after training society, they would get skills such as **flexibility, multidisciplinarity** and **collaboration capacity**. As a suggestion, a researcher even mentioned that “society and institutions may have an office which could develop these functions, in example Research Offices, universities Social Councils of even the faculties”. In other words, that the institutions could support these initiatives. Also, it was pointed out that these initiatives should be informed to institutions and administrations in order to obtain more support, not only in terms of training but also financial support.

In terms of training, a researcher involved in a project related to CBR/CBPR considered the seminar done in the framework of the project could be a good guide, apart from disseminating the results, to train society on these topics.

One researcher also mentioned that the reason for the lack of training on this topic in their country was that there was “no tradition” there.

3.4. Attitude

Train society in CBR/CBPR

While most consider education in citizenship important in CBR/CBPR issues, not many had imparted training in these areas. It is also true that most feel that they are not experts, even though they had participated in a multitude of CBR/CBPR activities and this may be one of the reasons why they have not taught.

However, all explain that one way or another have contributed to the expansion of these types of research in several environments: Universities, through partnerships with other NGOs, public institutions. In fact, most state that they would like to do it more actively: “I'd like to do more about this”.

In the specific case of one of the Science Shops, for example, it did not organise any training for the teachers. The knowledge was “transmitted informally and there was a kind of experimentation to try to find what would work in this particular institution”. However, some of the teachers were sent for learning visits to other science shops in Europe in the framework of the Erasmus program. The leader of the science shop learned in a summer school and with a European project. Another science shop started after the leader participated in training on science shops. And the employees also participated in other activities related to citizen science, CBPR, etc. The organisation will offer training in the future, as well.

Community could develop research skills under your guidance

Although the interviewees do not feel that they have sufficient competencies to provide CBR/CBPR training, they do feel that they have sufficient skills to motivate citizens to participate in the CBR/CBPR investigations they organize. In this sense, they are able to generate discussion, debate and create research questions from different perspectives in the “interpretation of data” or the “justification of decisions”. “It would be ideal if the community partners could develop research skills under academia guidance, but this is very difficult to be achieved. The general society could help in identifying the problems, the needs and also in illustrating and analysing the problem. However, specific groups of the society like start-ups and young people could, of course, develop important research skills”.

Regarding the preferences of the interviewees about the kind of citizen groups that they prefer to work with, many people point to the young people and NGOs as the first option. They are followed by civil associations and policy makers.

Expansion at academic/research institute/NGO level

CBR/CBPR is seen as a beneficial research which is able to produce very favourable results for the stakeholders involved. Thus, the interviewees agree in considering positive the expansion of this type of research. One opinion in this regard is: “this kind of research could provide to the communities an analysis of their processes and situations and they could obtain many benefits”.

The academic level was considered by some interviewed as one of the most suitable levels to expand this type of research. For example, CBR/CBPR may be included in the final degree projects of the students. Also, it was proposed that “some of the research projects were developed by students as

part of their academic skills". On the other hand, it was also mentioned that "there are no efforts yet to popularise the idea in academia".

In addition to the above, it is important to involve different collectives and environments in this research process. This fact can produce very favourable and useful results in different contexts.

To expand this kind of research some basic elements are considered, like stable funding resources or the establishment of a better communication among researchers and communities.

Promotion

Regarding the promotion of this research, some of the experts considered it is important to show the community "what research can do for them". In this regard, one of the experts considered taking advantage of the networks created in CBR/CBPR activities.

In the academic environment, one expert considered that a way to promote this research would be to "offer incentives for researchers to get involved in this type of research". Another option remarked by some of the experts was to increase training and support between the academia environment in order to get more involved in CBR/CBPR. Some other suggestion in this line would be to motivate superiors to get and stay involved.

3.5 Challenges

Re-involvement in future activities

It is striking to see how all the interviewees without exception **confirm their willingness to participate again** in CBR/CBPR activities. This is what all interviewees answer, regardless of whether the activity was carried out within the framework of an NGO, civil initiatives, community organizations or a public agency; whether it was part of their work or they did it voluntarily. This interest in participating in a new CBR/CBPR activity may be related to the interest of "closing the circle" and to be able to find solutions to the problems that arise, of not remaining in the initial stages.

Some of the respondents considered "there is a great scope to continue working on this collaborative research programme for many years to come in order to create even more benefits to the society". One of them was of the opinion that "CBR/CBPR can have a great impact on the society. There is a need for all the stakeholders to join together in this kind of research. Joint efforts by municipalities, schools, hospitals, vulnerable community groups, etc., could lead to a better and more organized public sector, legislation and society".

Nevertheless, **despite this favourable response, some improvements are remarked** by the experts. For instance, "the involvement of other stakeholders like policy-makers and the industry. Policy makers could help by making the procedures of finding participants and contacting the general public in a more straightforward way, and the industry could help with funding. Both those stakeholders' groups are difficult to be convinced to take part or contribute to research". Or even, some other considered that an "extra effort must be taken from the researchers. The researchers and the academia need to find the best practises to approach the community and built trustful relationships. Currently, it is difficult for the general public to approach the academia. Citizens are addressing the municipality or the media to report a problem; they are not used to address the universities or the researchers to get answers".

Regarding the stakeholder group that would be considered in the face of new activities of CBR/CBPR, the answers are not so unanimous. In fact, it is not what they are most concerned about, although they do indicate that it would be good to have experts on the subject, experts that may or may not come from the academic field, but capable of giving unbiased views. What they do agree is that "identifying all relevant stakeholders is the most important first step which is often ignored" and they also believe in the "strengthened cooperation with decision-makers".

Future changes

Regarding the improvements, there are some recommendations that the experts considered would benefit this research. One of the most repeated challenges is "to build a more sustainable relationship with community organisations and to involve students into the search of research request, to give more responsibility". Another fact mentioned in this regard is "opening to more social groups". For this purpose, they suggest, for example, using social networks as a convening tool. This could help, for example, to motivate students to take part in these studies. In order to achieve that, a possible way could be to learn about a concrete NGO and find a position to work there.

Regarding civil society organisations, some expert mentioned, "Community organisations have not understood the importance of informed decision-making based on research data, and that they can use data to justify their activities". Besides, **community organisations are not fully aware of the free services that science shops offer**.

Another aspect is that the "decision support system for CBPR should be bottom-up, not top-down". **That is, they proposed that the society should not only have a greater role in these activities, but also a greater weight and leadership**. Some comments mentioned by the experts in this line are the following: "more social groups should be involved - people should be more aware of the importance of their opinion"; "enhance the sustainability of the management measures as a result of CBPR research and empowerment of the participants to act independently in the future".

One of the main barriers is the management of expectations. For example, community organisations have to understand "how much science shop is able to solve their problems", they cannot do everything. Also, it is important to organize all the groups. Regarding the participation of the community, the benefits of "empowering the participants" are highly remarkable. One example would be changing/adapting the law in a manner that favours and guarantees the **right of citizens to participate through CBR/CBPR processes** in aspects that will later influence their daily life. It is a common feeling that "Local voice should be heard".

Some other challenges mentioned too are time and resources. For instance, one of the experts considered that funding would be a "way to ensure continuity over time".

Encouraging organisations to take part in this research highlighting the benefits could be a challenge for the future. In the case of NGOs, they can be reluctant because they could be afraid to lose their prestige, or they may not feel safe about their future, even though doing this research would help them to win a project. Organizations, as well, think they know the needs of their target groups and they do not see the necessity of the research. This research could be used to support various foundations and writing project applications. Another benefit would be if the research included an evaluation of the impact of the work carried out by the NGO. It could also be used in an application for funding. Regarding organisations, another challenge is to strengthen relationships with community

organisations. For example, a good idea would be to have a “data bank of research requests” that would allow students to pick a research idea. Also, to strengthen students' involvement by giving them more responsibility in the implementation of projects and in the research request.

Some of the experts mentioned the distrust of society towards academia, where science/research and society do not meet. It is highly remarked that recognition of researchers working in CBR/CBPR by the academic community would be a further step. It is necessary to claim that **these activities should be recognized** as part of the teachers' curriculum and valued positively in the processes of accreditation of university teaching staff and in the processes of promotion and consolidation of positions, for example. Other requests from the researchers are to avoid bureaucracy at the University for doing this research and having the University more involved in this research.

Regarding the methodology, it was mentioned that one point would be to “include more participatory aspects into the research”. Also, to include new methodologies to involve the community or community organisations themselves, and that they could have more responsibility. “Strive for a research with community organisations, not only for community organisations”. Another fact is that sometimes most of the projects remain in the initial stage, that of collecting ideas, concerns, needs, but after that, they get very difficult to implement, or materialize. One expert points out that ideally, once these projects are finished, an RIA (Research and Innovation Action) should have to be requested, in order obtain tangible results with a positive impact on society. According to this, the main challenge of this type of research is to **“go beyond the mere collection of data”**.

And of course, in the framework of the project, one of the main challenges concerns policy makers. As mentioned before, this kind of research can be associated with them by assessing their work.

Another challenge mentioned by the experts was the field. Some of the experts mentioned that many of the studies are from the health, environment and anti-corruption areas. Some other pointed out that, apart from getting more recognition in Universities or research centres, science should be more inclusive.

In future terms, even a researcher thinks that support would be increased by having more guides and support to do this research.

When asked if this activity had led to the creation of some organization, the respondents referred to the following aspects: “Regarding funding and support, an increased funding would increase the quality of the science shops because time and resources are very limited”. Also, the independence of the CBPR can be an issue.

“The engagement of the students may be a problem and, as they are not getting paid for their work, an optimal result cannot be guaranteed. Also, not all the stakeholders are represented, and it is limited to some departments or people. To achieve that, a more formal evaluation process and mapping of project outcomes would attract some others, as well as wider research projects rather than small collaborations on one particular research question. Another aspect is that more students and supervisors involved are a “key issue”.

Train society in CBR/CBPR Improving community involvement

Regarding how you would improve community involvement, all those interviewed pointed out that this should be achieved, for example in science shop events where many NGOs/NPOs were present and distributed flyers and also with announcements in newsletters of umbrella organizations of NGOs.

Other researchers indicated that one interesting aspect to improve the involvement is to "raise awareness in groups dealing with mental health, self-help groups, and social workers – especially clinical" or "Community involvement can be improved by introducing participatory elements into theses, and doing more participative workshops"; "The promotion in mass media is very important to disseminate research and bring the community closer"; "Developing activities of dissemination and motivation to engage the community"; "it is a lack of knowledge and it can be improved with information and dissemination of the results obtained"; there would be "a wish for this kind of research to spread. On one hand, universities (they have good resources for this research) and policy makers (who realise the importance of informed decision-marking)".

Regarding the ways to involve society, some of the interviewed answered the question whether they think there is a better way to do it. In that sense, the great majority believed it is so important to involve them. One of them was of the opinion that, for example, when a community organisation knows this research and sends a research request, it is easy to involve it. The most difficult thing is to "make them send research requests" and "why they need a research and to make them use the results later".

Solving the barriers

According to the answers, most of the interviewees "would like to be involved in CBR/CBRP again. While there are a lot of methodologies that could be applied in CBR, like co-design (an approach to design attempting to actively involve all stakeholders) and ideation sessions, the main problem with CBR is the lack of the culture of involvement. This culture needs to be established in societies. Science shops or maker spaces could bring together different stakeholder groups". For the interviewees, "CBR can have a great impact on the society but there is a need for very careful and detailed design of this kind of studies. Policy makers and other stakeholders, apart from researchers, need to take part also in the design of the study".

Recognition in CBR/CBPR

When we refer to recognition, many of interviewed pointed out the lack of recognition of CBR/CBPR from policymakers or civil society. One of the reasons indicated is the difficulty to measure their results objectively. In this line, some of interviewed agreed on it:

"There is a lack of recognition, especially since research evaluation systems do not take into account any of these activities".

"It is hard to see and to measure. Even if they are focused on small groups, they show real breakthroughs".

"This research has little recognition from civil society. Not even at an institutional level, because it is not valuable".

Most of the recognition obtained is emotional and also through press and mass media. One suggestion proposed to gain more recognition is to **publish internationally** in order to **disseminate this kind of research and its benefits**.

Nevertheless, the interviewed considered that CBR/CBPR could produce a high impact on society, at all levels: social, local, economic, educational, etc. More specifically: “changing their way of thinking, their way of communicating, the association model and the attitude of the administration”.

4 Executive Conclusions

4.1 Survey

- A total of 151 surveys were obtained. Fifty-two per cent of the participants were women, 46% were men and 2% did not specify it. More than the 60% of the sample was between 35-54 years. Ninety per cent were researchers, 5% worked in a community organisation and around 2% were policy makers. One hundred and twenty-two (80.8%) were from Europe, 25 (17%) were from America and 3 respondents (2%) from Asia.
- Ninety-one per cent of the survey respondents participated in CBR/CBPR researcher as members of a project team. Only 3% as a beneficiary.
- Regarding the topic, 35% were in Social Science fields, followed by 27% in Medicine and Health. The lowest percentage corresponded to Technology, with 4%. Differences have been found by gender: female participated in Medicine and Health (18%) research activities vs 9% of men. These findings differed with those expressed by the group that had knowledge but not experience on this. In this case, women considered most appropriate field for applying this research "Technology" (13%) while men considered "Social Sciences" (21%).
- The most common objective of this research was collecting data/monitoring specific issues (36%), followed by solving problems in society (32%). A 6% was used to do a consultation with citizens.
- Mainly, the type of institution where the research was conducted was the Universities (75%), followed by Schools or Colleges, with 11%, and NGOs, with 10%. This research was mostly conducted during working hours, with 91% of the responses. This could suggest that most participants are academic from research institutions.
- As the main benefit for the community from this research, "Enhanced learning for societal awareness" (71%), was the most highlighted, followed by "Development of new relationships between different stakeholders" (66%). On the other hand, the main benefits for the organisation were "Production of new knowledge" (80%) and "Knowledge transfer between different stakeholders" (68%).
- The surveyed sample was of the opinion that the main difficulty for the community is the "Lack of understanding in your own organization" (40%). However, for the organizations, the main difficulties perceived were the "Lack of financial support" (50%) and ·Lack of time/equipment" (50%).
- Regarding the approach, 57% indicated the approach was top-down, a 22% bottom-up, and 17% that it was both.
- Regarding the success of the activities, 41% considered them successful but not sustainable over time. One per cent considered there were not successful. As far as the level of satisfaction is concerned, regarding the research questions, methodological guidelines, research procedures, the involvement of participants and interactions with the project, approximately 50% rated them to be "Very satisfied".
- The main reasons for not participating in CBR the respondents mentioned were "Never crossed my mind" (36%) and "Not enough time to do the research" (20%). From this group, a 41% of them would agree to train in this kind of search for self-learning (41%), during their working hours (67%).

- Sixty-six per cent mentioned that they are facing questions or problems in their organisation that can be solved using this methodology. This percentage indicates CBR/CBPR research could be applicated in several environments.
- Regarding the training of society in these methodologies, 78% considered it to be very important. A higher percentage (87%) considered the community as a full partner in the CBR/CBPR approach. In relation to the impact on this research, 67% considered that it "Increased knowledge of decision makers" and 54% that it "Improved image of science and research in society". The feeling is that CBPR should be dealt mainly in academies, on the other hand universities are not that “trusted” by society.
- One of the main impacts of this research was %Increase the knowledge of decision-makers" (67%).
- As far as future changes are concerned, 31% pointed out that they would increase the "Number of stakeholders" and the "Time". Forty-one per cent would involve one civil society group more.
- Regarding the recognition from policy makers, 67% considered it would receive this consideration from the policy makers.

4.2 Interviews

- CBR/CBPR is considered as a beneficial research, which can produce better results for the stakeholders. Also, all the expert interviewees confirm their willingness to participate again in CBR/CBPR.
- The interviewees described a wide range of community-based research experiences with a broad range of research topics, community partners, approaches, stakeholders and levels of engagement.
- Regarding the approach, the majority of the interviewed highlighted the fact that the approach was bottom-up. Regarding the size, most of them mentioned that it depended on the topic.
- Regarding the benefits, some of the interviewed mentioned transparency, flexibility and active involvement of the public. They also pointed out the barriers with the community in terms of communication, the lack of identification with the problem or the real connection to the problems of the community, participation, lack of trust, lack of recognition and lack of funding/time.
- Although respondents showed a large variety of experiences, a majority of the interviewed considered their experience had been successful but even intermediate milestones are considered a success. As one of the challenges of this research, experts mentioned this research is not sustainable on time because the duration is not enough for solving the problems/needs.
- A more participation of other stakeholders such as policy-makers would be very beneficial. In the opinion of one of the interviewees, it is a need for all the stakeholders to joint together in this kind of research. Joint efforts by municipalities, schools, hospitals, vulnerable community groups etc. could lead to a better and more organized public sector, legislation and society.
- The most surprising thing is the lack of training of the experts in CBR/CBPR research. In most of the cases, they approach this issue by doing self-learning activities, attending congresses, etc.

- Regarding the perceptions, the majority of the interviewed believe all topics can be used with CBR/CBPR. They also consider this research is transversal to all disciplines and the science should be more inclusive.
- The community is considered as a full partner for CBR/CBPR activities and it is necessary implement a plan to train community partners in research methodology. However, the community does not trust the academia because they do not see a solution to its real problems.
- CBPR is perceived as approach with enormous of capacity to build bridges and close the gap between the scientific and technological world and citizens despite the difficulties. Agree with this, changing or adapting legislation in a manner that favours and guarantees the right of citizens to participate through CBR/CBPR processes in aspects that will later influence their daily life. It is a common feeling that “Local voice should be heard”

5 References

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6 Appendix 1 (Survey)

This survey will be aimed at stakeholders with experience in CBR/CBPR

Sex:
a. Male
b. Female

Age: (Ranges?)
Occupation:
a. I am a scientist/researcher
b. I work at a community organization
c. I work at a governmental or policy making institution

Country:

Presentation survey
The Horizon 2020 SciShops project aims to build on and expanding the capacity of the Science Shops ecosystem in Europe and beyond. As part of the SciShops project, at least ten new university and non-university-based Science Shops will be established in Europe by project partners.

With this survey, according to the objectives of the project, we want to identify perceptions, attitudes, experiences, and challenges on **Community-Based Research (CBR)/Community Based Participatory Research (CBPR).**

Find below the definitions.

1. **CBPR** is a way of organising research where scientists work together with non-governmental organisations, communities and other groups of society to co-create new knowledge or understanding about community issues. The new knowledge can later be used to attain change in the community.

2. **CBR** is a research activity, performed by public or private, commercial or non-commercial institutions, in response to community needs. These needs are preferably formulated through community-based research questions.

If you have participated in these types of activities, we would welcome your participation in the survey. In case you have had more than one experience, please answer the questions according to the one you consider most relevant.

Conditions of participation
The information provided by you in the questionnaire will be used for research purposes to inform the project. We guarantee that your responses will be completely anonymous and never analysed or displayed individually. The survey will take 15 minutes to be completed. Participation is entirely your choice and you are entitled to withdraw participation in the research at any stage. If you would like to do so, please contact us, and we can erase data gathered from your survey. Thank you for your valuable input.
The e-mail will be requested in the survey for control purposes in order to avoid duplication. This data will be treated according to EU Legislation (Directive 95/46/EC).

Contact
If you would like to talk to someone regarding the survey, please contact INAECU, Spain, email: inaecu.uc3m@gmail.com, tel. +34 91 624 84 68

Informed consent
According to this, I have read the outlined terms and I understand them. I CONSENT to participate in this research activity in order to achieve the objectives of the study.
1. Yes
2. No

EXPERIENCE

Did you use CBR/CBPR in your research activity?

YES	**NO**
1.- How were you involved in the research method? a) As a member of a project team b) As a direct participant c) As a beneficiary	1.- What is the main reason for not participating in CBR/CBPR? a) Not relevant b) Not useful c) Not having economic support from my institution d) Not enough time to do the research e) Not the right equipment f) Lack of community interest/engagement g) Never crossed my mind h) Other (specify)
2.- In which field did you undertake CBR/CBPR? a) Humanities b) Social Sciences c) Natural Sciences (Chemistry, physics…) d) Technology (engineering, computer science…) e) Medicine and health f) Formal sciences (mathematics, logic…) g) Other (please, specify)	

3.- What was the purpose of the research? a) To solve some problem in society b) To engage the community in research c) To collect data for the analysis/monitoring of a specific issue a) To run a consultation with citizens b) Other (please, specify)	2.- In which field do you think CBR/CBPR could be useful? a) Humanities b) Social Sciences c) Natural Sciences (Chemistry, physics…) d) Technology (engineering, computer science…) e) Medicine and health f) Formal sciences (mathematics, logic…) g) Other (please, specify)
4.- What form of activity did you use? a) Knowledge café/Science café b) Focus Groups c) Citizens' Assembly d) Co-creation events e) Other (please specify)	3.- Have you received CBR/CBPR training? a) Yes b) No c) Don't know *If no, question 3a.*
5.- Regarding the last question, what was the average duration of the form(s) used? a) One day b) One week c) One month d) I don't remember exactly e) Other (please, specify)	
6.- In which type of institution was the research conducted? a) University/research centre b) NGO c) Health center d) School/College e) Government f) Other (please specify)	3a) Would you be interested in training in this kind of research? a) Yes, for self-learning b) Yes, if it would be part of my job c) No, not useful for me d) I have the information I need e) Other (specify)
7.- Was the research undertaken as part of your job? a) Yes, as part of my job b) No, out of my work (on voluntary basis)	4.- In which type of host institution would you undertake CBR/CBPR research? a) University/research centre b) NGO c) Health centre d) School/College e) Government f) Other (please, specify)
8.- Do you believe that CBR/CBPR was the correct type of research for the topic addressed? a) Yes b) No c) Partly	
9.- Given your experience(s) of CBR/CBPR, what do you consider are the main benefits of this type of research? (multiple choice) A) For the community a) Finding solutions to societal problems b) Encouraging multi-actor dialogue c) Development of new relationships between different stakeholders d) Enhanced learning, for societal awareness e) Knowledge transfer between different stakeholders f) Empowering civil society g) Other (please specify) B) For your organization h) Encourage multi-actor dialogue i) Production of new knowledge j) Enhanced learning, for societal awareness k) Development of new relationships between different stakeholders l) Social responsibility m) Knowledge transfer between different stakeholders n) Other (please specify)	
10.- Given your experience(s), what do you consider to be the main difficulties of using this type of research? A) For community a) Lack of understanding in your own organization in community problems/needs b) Not producing any difference/improvement c) Not feeling involved in the research d) Other (please specify) B) For your organization e) Lack of expertise/training of personnel involved f) Lack of time/equipment g) Lack of financial support from the organization h) Lack of community interest for engagement in research	5.- Would you develop this type of activity in your job framework? a) Yes, as part of my job b) No, out of my work (on voluntary basis)

i) Difficulties in coordinating activities with the community j) Other (specify)	
11.- How would you describe the attitude of the participant community in CBR/CBPR? a) Positive b) Negative c) Neutral	6.- Would your organization give its support (economic, institutional, etc.) to the research? a) Yes, full support b) Yes, partial support c) No support d) Unsure
12.- What was the average duration of the research project? a) Between one and six months b) Between six months and one year c) Between one to -three years d) More than three years e) I don't remember exactly f) Other (please, specify)	
13.- Do you think the duration of the research was enough? a) Yes, was enough for conducting the research b) No, more time was needed.	
14.- What approach was used in the CBR/CBPR for identifying/collect needs/questions? a) The Institution was the one which approached the community (top-down approach) b) The community was the one which approached the university/research institution (bottom up approach) c) Other (specify)	
15.- Was training offered to the participants before the research? a) Yes b) No	
16.- Did you have any kind of funding for undertaking the research? If yes, specify from whom. (Multiple answers) a) Private sector b) Public sector c) From your own institution d) No funding e) Other (specify)	
17.- Did your organization give its support (institutional, promotion, etc.) to the research? a) Yes, full support b) Yes, partial support c) No support	
18.- How would you describe the success in achieving the goals of the research project? a) Successful and sustainable over time b) Success achieved (but not sustainable over time) c) Partially achieved objectives d) Not successful	
19. - Overall, are you satisfied with the research format? (Duration, place, methodology, etc.) a) Yes b) No c) Other (specify)	
20. - How would you rate the following aspects of CBR/CBPR? (Likert scale) a) Research question/Research topic (1-5) b) Methodological guidelines (1-5) c) Research procedure (1-5) d) The involvement of participants (1-5) e) Participants' interactions after the project (1-5)	

21. - What were the main outcomes of the research? Multiple responses are possible a) Synergies created between researchers and the community b) New findings c) New research projects d) Research dissemination (reports, articles, etc.) e) Knowledge transfer activities f) Other (specify)	
22.- What are the main barriers to solving community problems through CBR/CBPR? a) Lack of funding b) Lack of expert participants' training c) Organizational aspects (facilities, infrastructure, etc.) *d)* Other (specify)	

PERCEPTION

1.- Does your organization face questions or problems that might be resolved by using this methodology?
a) Yes
b) No
c) Don't know

2.- What type of problems do you think are suitable for addressing using CBR/CBPR?
a) Health
b) Education
c) Social problems
d) Environmental problems
e) Other (please specify)

3.- Do you consider it to be important to train society in these methodologies?
a) Yes
b) No
c) Don't know

4.- Do you consider the community as a relevant partner in your professional field?
a) Yes
b) No
c) Don't know

5.- What could be the most important impact of community-based participatory research/ science shops? Please select 3 most important impacts.
1. Increased knowledge in community organisations
2. Increased knowledge at academic level
3. Increased knowledge of decision makers
4. Improved work of community organisations in serving communities
5. Strengthened stakeholder networks
6. Strengthened or new research collaborations
7. Improved image of science and research in society
8. More research informed policy decisions
9. Influence on choosing directions of future research
10. Other (please specify)

ATTITUDE

1.- Would you assume the responsibility to start a CBR/CBPR research?
a) Yes
b) No
c) I do not know

2.- Would you be able to guide the stakeholders in the research process (generation of research skills)?
a) Yes
b) No
c) I do not know

3.- Do you consider positive the expansion of CBR/CBPR?
a) Yes, at the academic level
b) Yes, at the social level
c) Yes, at the governmental level
b) No
c) Other (please specify)

<table>
<tr><td colspan="2">4.-Do you consider that this form of research could be used more at the academic level / research institutes / NGO/ government?
a) Yes
b) No
c) Don’t know</td></tr>
<tr><td colspan="2">CHALLENGE</td></tr>
<tr><td rowspan="2">1.- Would you be involved in CBPR/CBR again?
a) Yes
b) No
c) Don’t know</td><td>1.- Would you involve policy makers in your research?
a) Yes
b) No
c) Don’t know</td></tr>
<tr><td>2.- Are you of the opinion that the results of CBR/CBPR research would get recognition from policy makers?
A. Yes
B. No
C. Don’t know</td></tr>
<tr><td>2.- What would you change in terms of your previous experience(s) in CBR/CBPR?
a) Stakeholders (no. of participants, engagement of the participants ….)
b) Methodology (not adequate for solving the problem, identifying the problems/needs)
c) Duration (inadequate duration (long/short), too intensive,…)
d) Location (inadequate place: noisy, insufficient capacity, etc.)
e) Others (specify)</td><td rowspan="5">3.- If you had the chance in the future, would you like to involve some other stakeholder group, and if so which one? (tick all that apply)
a) Civil society group
b) Researchers/academics
c) Non-profit organization
d) Small and medium enterprise (SME)
e) Large enterprise (LE)
f) Policy makers
g) Other (please specify)</td></tr>
<tr><td>3.- If you had the chance, would you like to involve some other stakeholder group, and if so which one? (tick all that apply)
a) Civil society group
b) Researchers/academics
c) Non-profit organization
d) Small and medium enterprise (SME)
e) Large enterprise (LE)
f) Policy makers
g) Other (please specify)</td></tr>
<tr><td>4.- Do the results of the CBR/CBPR that you have undertaken get recognition from civil society?
a) Yes
b) No
c) Don’t know</td></tr>
<tr><td>5.- Do the results of CBR/CBPR that you have undertaken get recognition for academic assessment?
a) Yes
b) No
c) Don’t know</td></tr>
<tr><td>6.- Do the results of the CBR/CBPR that you have undertaken get recognition from policy makers?
a) Yes
b) No
c) Don’t know</td></tr>
</table>

7 Appendix 2 (Interview)

Interview guide:

The objective is to carry expert interviews in order to identify perceptions. experiences. attitudes. and challenges in CBPR. The following questions are a guide that could be used to guide the interview. The interview will have the following structure:

- Background of the person: Degree. etc. *Background only should be asked in case we do not know the information)*
- Perception
- Experience
- Attitude
- Challenges

INTERVIEW

a) Experience related

- Brief introduction to their experience with CBR/CBPR. Could you explain the details of the activity group composition. host institution. etc..)?
  a. What kind of CBR/CBPR methodology have you used? In which field health. education. etc.).
  b. What was the main purpose of the activity? solve problems. engage community. etc.)
  c. What approach was used in CBR/CBPR for identifying needs/questions? the institution was the one which approached the community; the community was the one which approached to your institution).
  d. What were the organizations involved in the activity? Could you explain the main contribution of each group in the activity?
  e. Do you consider that the activity was successful?
  f. What were the main outcomes resulting from this activity?
  g. From were come the resources for developing the activity?
- What are the main barriers in communication with the community? cultural beliefs. social status. age. scientific) knowledge. lack of interest. lack of trust in the researcher group. etc.)
- Did you do a training/workshop in CBR/CBPR research? Did you attend this training in your workplace?
- Did your organization know that you conducted this activity? And in that case. was the attitude of your organization positive. etc.)?
- What is the size of the groups of citizens you prefer to work/do research with?
- How do you evaluate the success of the CBR/CBPR research that you are involved? With quantitative or qualitative indicators. level of success. etc.

b) Perception related

- Does your organization/host institution face questions or problems that might be resolved by using this way of research? In case of yes. did some initiatives have been taken?
- What type of problems do you think are suitable for addressing using CBR/CBPR?
- Do you consider the community as a full partner in your field? Why?
- Do you think that CBR/CBPR is transversal to all disciplines or it can be only used in ones? Or only applicable in some areas?
- Do you consider important to train society in CBR/CBPR?

c) Attitude related

- Did you ever train other groups from your organisation or from outside it) in CBR/CBPR?
- Do you consider that the community partner could develop research skills under your guidance? What kind of research skills?
- Have you contribute to the expansion of these types of research at academic/research institute/NGO level? Do you think you should do more about this?
- What kind of citizen groups do you prefer to work with? disadvantaged. health problems. ethnic. young people. rural area etc. groups)

d) Challenges related

- Would you be involved in CBR/CBPR again?

- What would you change about this experience? List the possible changes improve budget. training. more societal groups involved. etc.) that you would like to incorporate into future events of this methodology.
- It you had the chance in the future. would you like to involve some other stakeholder group. and if so. which one?
- Did this activity lead into the creation of some organization?
- How would you solve the main barriers that you found in the CBR/CBPR research in a future experience?
- What suggestions do you have for improving the community involvement?
- Do the results of the CBR/CBPR that you have undertaken get recognition from civil society? And policy makers?
- Do you think this way of research have an impact on society?

An **informed consent form** was required from the experts interviewed before the start of interview:

SciShops

Informed Consent Form for respondents participating in SciShops interviews

SciShops – Enhancing the Responsible and Sustainable Expansion of the Science Shops Ecosystem in Europe.

Project Description: The project responds to the European Commission's call to provide support to universities and other research performers to establish or strengthen science shops throughout Europe and beyond and to promote the growth of socially responsible community-based research. SciShops will explore how different types of research organisations. such as research institutes. large enterprises. NGOs and universities can develop sustainable Science Shops with the aim of establishing around ten new Science Shops.

Consortium Members: SYNYO GmbH. Austria; the University of Hohenheim. Germany; KMPG. Cyprus; the National Unions of Students in Europe. Belgium; Institute of Social Innovations. Lithuania; University of Oxford. UK; University of Leuven. Belgium; Universidad Carlos III de Madrid. Spain; Polytechnics University of Bucharest. Romania; the University of Brescia. Italy; Leiden University. The Netherlands; CIMNE. International Centre for Numerical Methods in Engineering. Spain; The Jožef Stefan Institute. Slovenia; The Wuppertal Institute for Climate. Environment and Energy. Germany; VA Public & Science). Sweden; Bay Zoltán Non profit Ltd. For Applied Research. Hungary; SciCo Cyprus. Cyprus.

SciShops is funded by the European Union's Horizon 2020 research and innovation programme *under grant agreement No* **741657**

Purpose of data collection: We are conducting interviews with experts with experience in community-based participatory research in order to identify their current perceptions. experiences. attitudes and challenges.

How the data will be used: Data will be used in order to elaborate an initial report on current perceptions. experiences of experts in participatory research. challenges. In this sense. this information will be used for stakeholders' involvement and the development of a knowledge exchange roadmap. The results of the study will be disseminated. only for scientific purposes. in compliance with the ethical standards of the scientific community.
The data may be further processed for scientific purposes. in line with the European legislation on protection of privacy regarding the processing of personal data: Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 and Regulation EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 Enforceable: 25 May 2018).

Your Role: We request your permission to interview you between 30 minutes-1hour. Some of the conclusions obtained will be published.

Your responses will only be used for research purposes and always within the framework of this project. You will have an opportunity to check and revise the interpretation of the information prior to publication.

Who has access to this information: By signing the form you give your consent to process your data for the project. The SciShops consortium members who are directly involved in conducting and analysing interviews will be the only persons that will have access to your personal information.

We are happy to discuss any specific concerns you may have. Your participation in the project is completely voluntary and you can choose to stop participating at any time.

First Name

Last Name

Organisation

Position

Email

Please tick one of the boxes to indicate your confidentiality preferences:

I consent to the project using my name and position inside or outside) of the organisation being studies appearing in SciShop's deliverables.

I consent to my position appearing in SciShop's deliverables but DO NOT consent to the project using my name.

I DO NOT consent to the project using my name or position in deliverables.

I have read the outlined terms and understand them.

Secondly, this data collection guide was provided to the research to collect the information of the interviews.

Information about the interviewed Age: Sex: Collective: researcher. policy maker. community organization. citizen Education: Country:
Experience: In this section. you have to collect information about the interviewed regarding his/her experience. You should include a brief summary of the questions that are specified in the interview draft. - How? - When? - Purpose? -Which type of institution was the research conducted? - Support from your institution? Or how it was? - Barriers: - Difficulties: - Success or not? Was the correct type of research for the topic addressed?
Perceptions In this section. you have to indicate the information about its perception of these research. You should include a brief summary of the questions that are specified in the interview draft. - What type of problems do you think are suitable for addressing using CBR/CBPR? What kind of skills? - A community as a partner? - Is CBR/CBPR a transversal approach? - Train society in these methodologies?
Attitude In this section. you have to compliment with information about attitude from the interviewed. - Community partner could develop research skills under your guidance? - Expansion of these types of research at academic/research institute/NGO level? - CBR/CBPR could be developed and expanded?
Challenges Please. specify information about challenges about the interviewed. - Would you do it again? - What would you change? Stakeholders. methodology. duration. location. etc.). - Would you like to involve some other stakeholder group? - How would you solve the main barriers that you had had in CBR/CBPR research? - How would you improve community involvement? - Did you get recognition from civil society? And with policymakers? - Impact on society?