

4.1.1 Executive Summary

PERARES aimed to strengthen interaction in formulating research agendas between researchers and Civil Society Organisations (CSOs). These research agendas can be quite local (the topics of research projects at a single university); but they can also be plans for research of a group of universities or even for larger funding programs, national or at the European level.

PERARES used a myriad of ways to achieve this general objective. In various formats, PERARES generated dialogues on science (including social science, engineering, technology etc.) to actively articulate research requests from civil society and its organisations. These were offered to research institutes and research has started on some of the identified issues. Thus, the dialogues had impact and were more than an exchange of words. Thus, CSOs have an impact “upstream”, i.e. at the start of the research process.

As one way of achieving this joint agenda setting, PERARES has started a transnational web portal for dialogues leading to the articulation of research questions. This has been piloted in the area of nanotechnology, and then every few months a new dialogue started on a new area. Furthermore, some partners piloted and assessed a range of forms of agenda-setting dialogues between researchers and CSOs. These consisted of, e.g., regular meetings over a long period of time (piloted in France and UK), and two separate direct co-operations in two important social science fields: research on domestic violence issues (led from Belgium, UK and Norway) and research with and for Roma/Traveller’s (started from Hungary, Spain and Ireland).

To strengthen local co-operation in setting research agenda’s, and to be able to respond to more research requests internationally, it was deemed necessary to enlarge and strengthen the network of research bodies doing research for/with CSOs. Thus, ten new Science Shop-like facilities throughout Europe have been established, mentored by experienced partners. Science Shops mediate or perform research on request by Civil Society Organisations; they are often part of a university, but can be stand-alone organisations as well (www.scienceshops.org). Open training workshops were given as well.

Science Shop-like work and Community Engagement of Higher Education Institutes were further advanced by conducting studies on good practices and policy making, to add to the available knowledge base. Guidelines to evaluate the engagement activities were developed and tested.

The partners also investigated the potential role of higher education institutes, leading to recommendations for strategies to incorporate civil society driven research in Higher Education. The potential role of research funders in supporting co-operation with CSOs was also studied, by surveying research funders and monitoring a funded post-doc project. PERARES shared its activities with the wider community through two large conferences and continuous dissemination, through its website, annual magazine and quarterly newsletters, and by participating in relevant events and contacting relevant media.

Thus, through increased, better structured co-operation, more researchers and CSOs now engage in incorporating the needs, concerns and knowledge of civil society in research agendas.

4.1.2 Summary Description of Project Context and Objectives

PERARES aims to strengthen interaction in formulating research agendas between researchers and Civil Society Organisations (CSOs), at the level of research organisations, and at regional and transnational / European levels. The project ran for 4½ years, from May 2010 thru October 2014.

In the PERARES project, the 28 partners that were involved throughout the project came from 17 different countries. These partners were Science Shops¹ (either part of a University or research institute, or a separate non-profit organisation/CSO), CSOs promoting the democratisation of research, Universities interested in starting a Science Shop (either public or private Universities), and, in the initial phase, a research council. Next to these official partners, many CSOs were co-operating in studies based on their specific interest (thus, performed on their behalf, at their request, and in consultation and co-operation with them).

Eight specific objectives were formulated for PERARES:

1. Encourage a continuous “upstream” science-society dialogue by linking the science shop work to existing debates and dialogues, to allow these debates to move upstream, into research planning at the local/regional level.

For this, three existing local dialogues (at events or on-line) will be linked to Science Shops, in order to scout-out research questions from these dialogues and have research done based on these questions. These connections can serve as example for the other partners.

2. Set-up a transnational debate, engaging CSOs, researchers and general public in a dialogue on research agenda’s (both local/regional and transnational/European) through a web-portal and pilot this in a dialogue on nano science and technology, before opening the floor to other topics of concern to CSOs with relevance for European research.

The transnational on-line debate will be piloted by a discussion on research directions for nano science and technology. As a preparation, a guideline will be made on how to have a meaningful dialogue. This describes and evaluates what has been done and what lessons we should be aware of before starting our own nanodebate.

Preliminary, we conclude that most dialogues focus on the general public (not on CSO’s) and there is no visible link with research agenda’s. Most dialogue discussion-agendas have been set by government or research institutes, not by CSO’s. We think that inviting CSOs and enactors in a structured dialogue makes research agenda setting (articulation of research requests) possible in a more meaningful way. This gives the PERARES activity added value to the nano dialogue.

In the second half of the project, all PERARES partners will jointly organise debates on various topics, again by consulting their networks of CSOs and researchers for input. The

¹ The mission statement of Science Shops (by that or any another name) is: A Science Shop provides independent, participatory research support in response to concerns experienced by civil society. Science Shops use the term 'science' in its broadest sense, incorporating social and human sciences, as well as natural, physical, engineering and technical sciences. Science Shops seek to: provide civil society with knowledge and skills through research and education; provide their services on an affordable basis; promote and support public access to and influence on science and technology; create equitable and supportive partnerships with civil society organisations; enhance understanding among policymakers and education and research institutions of the research and education needs of civil society; enhance the transferrable skills and knowledge of students, community representatives and researchers (www.livingknowledge.org). With a history of over 30 years, Science Shops have proven to be a regular part of the research strategy in several research institutes, and their numbers continue to grow.

topics then discussed should have relevance for European research and could be used to further sharpen the role of European research in tackling the “Grand Challenges” of our time. Research questions arising from the debates will be forwarded into the PERARES and Living Knowledge Networks for follow-up; research results will be brought back to the local debates or on the transnational debate site. Research wishes in various fields will be communicated to appropriate policy makers and funders as well.

3. Increase the number of research bodies that do research with civil society organisations, by developing local PER plans for this in ten specific regions, and by sharing information with interested parties in other regions as well

This will contain e.g. a plan to set up and maintain a science shop or other continuous dialogue form at an institute in each of the ten regions (including an overview of who will be the local partners, funding, management, and links to curriculum and research). The PERARES-partners will also exchange their best practices and organise activities to enable mutual learning.

An important part of our project therefore concerns capacity building activities for the participants. We will use ‘mentoring’ as a main concept.

4. Set-up research agenda’s in the field of domestic violence and the field of Roma and Traveller’s communities’ issues, in direct co-operation with CSOs

To investigate how we can set-up research agenda’s by transnational co-operation of research bodies and CSOs, we have chosen to turn to two socially very important issues that touch upon FP7’s research on socio-economic sciences and the humanities, especially social exclusion and discrimination, health and quality of life. Therefore, both on the topic of domestic violence (and especially that against pregnant immigrant women) and the topic of Roma and Travellers’ Communities’ issues, in each case three research institutes will each work with local CSOs to share existing knowledge and articulate research needs. The results of this work will be brought to the attention of the research community and relevant funders and policy-makers.

5. Pilot novel forms of research co-operation with CSOs, such as continuous debates between research labs and CSOs, and analyse these (and processes of cooperating with the CSOs mentioned under 4) to learn from these.

Periodically, two French partners will organise a seminar, alternatively in the lab and the CSO offices where researchers will present and explain the results of their work and the CSO will present its needs and/or its questions. The discussion will have two steps. A “discussion” phase followed by a “converging ideas” phase to set research steps for the next period. This is intended to lead to doing research in partnership (the dialogue being not only on agenda setting, but also discussing and assessing research results, involving CSOs in doing research themselves, and/or having scientific knowledge being put to use by a CSO). Picking up the experience in France, another partner will perform a similar approach in the UK.

6. Create a higher awareness of the value of, and practical insights in, the ways that HEI’s, research councils and other funders can support research with CSOs as partner, through survey and experiment

The PERARES project will identify particular incentives for research bodies and appropriate rewards for researchers to encourage their engagement with public and civil society. This

shall be achieved by exchanging experiences and sharing of best practices, among funders and receivers of funds. We will also run a longitudinal study to monitor funded post-doc projects that are done in cooperation with CSOs (France) and identify research projects that could be submitted to research councils (Romania).

The various challenges on funding cooperative research activities will be identified and discussed and also the ways of including CSO partnered research in the regular activities of the research institute. As this research is often connected with higher education, the PERARES project will pay attention as well to student-researchers and young scientists, and options to carry out similar CSO partnered projects as part of the curriculum (*connected to objective 5 as well*).

We will also study the potential role of Higher Education Institutes and its funders to support partnerships with CSOs.

7. Advance the work of science shops and similar organisations by studying and sharing best practices and collaborating to find ways to tackle bottlenecks through evaluating scope, process and impact of our upstream forms of PER

Special attention will be paid to the development of evaluation methods for the upstream engagement of the public with research. New evaluation methods are required for measuring the *impact* of upstream forms of engagement as traditional criteria such as number of projects, number of CSOs and researchers involved, number of site or event visitors etc. would be insufficient or even inappropriate in this context. We will set up a guideline for evaluating the impact of our public engagement on research agendas. These will be tested and used in the other PERARES work packages.

We will also continue evaluation of science shop and similar *processes* in order to advance and de-bottleneck them. To ensure that the research needs of civil society organisations are reflected in academic agendas and at a national level within research & education policy, more knowledge will be developed on the *processes* of doing research with civil society organisations. This work will add largely to the existing knowledge base, the Science Shop Toolbox.

8. Share and discuss our PER activities with the wider community through publicity and two international conferences

Regular consortium meetings and two international conferences will facilitate networking among the PERARES partners, and the broader community as well.

All partners will reach out to their networks and to new stakeholders in their regions. Two large “Living Knowledge” conferences will be organised to share and discuss our PER activities with a wide group of stakeholders. The Living Knowledge conferences benefit from the fact that they are known in the wide area of stakeholders, and there is experience in organising them within the consortium. Nevertheless, content and format of the conferences are of course regularly updated and improved.

With achieving these objectives, we intend to create the following impact:

1) An improved transnational cooperation between research bodies, in the domain of public engagement in research;

- 2) An improved mobilisation of researchers to engage with civil society in their practices;
- 3) An increased participation of civil society actors in research activities and an enhanced incorporation of the needs and concerns of civil society in research strategies;
- 4) The definition of new cooperative research agendas involving researchers and civil society actors and the combining of their respective knowledge and experiences.

4.1.3 Description of Main Results

PERARES achieved the active co-operation among CSOs and researchers in setting research agenda's.

Below, we will give information on our main results. We will start with an overview of the start-up of ten Science Shop initiatives (1) and after that a description of our efforts to set-up an on-line international dialogue aimed at formulating research questions (2). These two activities represent the most encompassing activities in the project.

After that, we will describe how we set-up tri-national research co-operations among universities and CSOs in two social science topics (3) and we will describe the parallel studies we did to support the co-operation among CSOs and researchers (4). These consist of studies on the role of higher education institutes, the role of research funders, the potential of scenario workshops and evaluation methods.

1) Supporting new Science Shops

PERARES kick-started Science Shop-like activities in ten regions that did not yet have this kind of facility to perform civil society driven research. New Science Shop activities started in Dublin, Cambridge, Lyon, Grenoble, Sardegna, Israel, Cyprus, Crete, Estonia, and Stavanger. Many projects with students and CSOs were done and the new science shops were mentored by experienced staff. Additionally, five Summer Schools were held to give participants from all over Europe a crash course on how to establish and operate a Science Shop. For a full report see: <http://bit.ly/1p0wIBb>.

Science Shops are units that perform or broker research with and for Civil Society Organisations, in a demand driven way. They are often, but now always, based at universities. This allows them to use students to do the research under faculty supervision. Thus, the research is part of the core-business of the university (research based learning and teaching), and the public engagement is added-in to these activities, and not added-on. This makes Science Shops an affordable tool for science-society engagement and co-creation of new knowledge. Stand-alone Science Shops use per project funding to achieve the same objectives.

In the period 2010-2014, the PERARES-project intensively supported new Science Shop initiatives in ten different regions, through mentoring. PERARES also supported various other initiatives through annual Summer Schools, incidental lectures, and on-line resources.

To start a new Science Shop, the following approach was taken:

1. A staff member is appointed to do a feasibility study and make a business plan, dealing with following elements and strengths/weaknesses of various options:
 - a. The potential demand (topics, numbers) for research from CSOs.
 - b. The potential resource of student-researchers (disciplines, levels, numbers)

- c. Options for organisational placement of the Science Shop, staffing, work-flows and responsibilities
- d. Potential sources for continued funding
2. An advisory board (including both research and CSO representatives) is set up
3. A temporary structure is set up to solicit and respond to research questions
4. Pilot projects are done

Based on all the above experiences, which were scheduled for the first half of the project, in the second half, a final structure was proposed, publicity made and funding for that was sought, while (pilot) projects continued.

The approach led to the following results:

- The European University Cyprus now has its Science Shop, integrated in university.
- The Institute of Baltic Studies, a (non-university) NGO research organisation has done projects co-operation with various universities through its Science Shop called 'Teadusturg' and now starts co-operation with Tartu University for continuity.
- In France, the association ADReCA has its Echop'a Sciences established, though working with university structures in Grenoble is still tough.
- Also in France, Université de Lyon has established its Boutique des Sciences, with a 3-year funding secured from a national program.
- The Technical University of Crete (Greece) has established its own Science Shop, Epilyon.
- In Ireland, the Dublin Institute of Technology has extended its project "Students Learning with Communities" to include Science Shop projects.
- In Israel, the Heschel Centre, an NGO, catalysed networking among universities and other stakeholders, and performed Science Shop style pilot projects.
- In Italy, the University of Sardegna has established its Science Shop as an association called "IntHum".
- In Norway, the University of Stavanger has established its Science Shop, the Forskningsstorget, which works with two of its schools now
- The University of Cambridge (UK) has further established its Science Shop, the Community Knowledge Exchange.

The 5 Summer Schools that were organized attracted about 130 participants from approximately 25 countries. Mentors in Hungary and Romania supported new Science Shops actively, and quite a number of other presentations and workshops, and publications were made.

Form our experience in this part of the work, we conclude that:

- By doing research projects with and for civil society in the curriculum - through Science Shops and similar intermediaries - many universities throughout Europe can advance public engagement in an affordable and mutually beneficial way.
- Supporting these universities with seed funding and mentoring/training by European experts is an efficient tool to set-up new Science Shops.
- Setting-up Science Shops without the active co-operation of universities is quite complicated.
- The Summer Schools are a good way to reach out to more interested actors.

2) Online Debates

The PERARES-project piloted with an international on-line debate portal, intended to discuss issues and together define relevant research questions on that topic, and forward these to Science Shops, researchers and funders. The motto for this was 'what do we together agree that we don't yet know, but still is important to know'. Topics were nano-technology (with five sub-topics); natural resources across Europe; a Code of Conduct for Research with and for Roma people; Food Gardens and the City; Local Economic Development; and Domestic Violence Research. For a full report see: <http://bit.ly/1wEY66x>.

We did an interesting preliminary study on previous dialogues about nanotechnology, which we used in preparing for the international on-line dialogues: <http://bit.ly/1u6Rm4E>.

Based on reviewing eight public dialogue projects on nano-technology, carried out in five countries and at the EU level, our formative evaluation came to the following recommendations:

- The dialogue should have a clear purpose 'on the table' for debate.
- Discussion should be grounded in specific cases and concrete issues.
- Public engagement should be understood as an ongoing process of learning and reflection, rather than seeking to represent a single 'snap shot' of public attitudes.
- Web-based dialogues are possible, but require careful and intensive moderation to ensure productive engagement.
- Web-based dialogue makes it possible to extend engagement over a wide geographical area, however it is important to link 'transnational' dialogue back to local engagement.
- Participation in web-based dialogues requires considerable time and effort of participants if it is to be successful, it is therefore important to be clear what is offered in return for participation.

Following the preparatory study on nano-dialogues, five themes were selected, where there are gaps in understanding the applications of nanotechnology in society. These emerged from face-to-face meetings involving members of local CSOs and scientific networks.

The five themes were:

- Nanotechnology and renewable energy
- Nanotechnology and ambient health care / 'lab on a chip'
- Environmental life cycle analysis of nano-particles
- Nanotechnology in medicine: cancer diagnosis and treatment
- Nanotechnology, food and labelling

The nano-debates ran between December 2011 and March 2012 and generated 27 comments from members of the public, CSO representatives and researchers. The nano-dialogue led to a number of practical issues concerning the use of the website, which were addressed during the nano dialogue and afterwards. The platform itself could insufficiently be tested before going live with this dialogue – which had to

start, given all other obligations and agreements with staff working on it. Performing five dialogues simultaneously also takes an effort from the general editors.

The main conclusion on the dialogue itself was that a science driven topic is difficult to bring to life and takes considerable effort from moderators. Thus, some of the next dialogues should be driven from a societal issue. A combination with face-to-face meetings did work well and is recommendable for future debates.

The second knowledge debate was on domestic violence. This arose from the work done in another work package, so preparation was rather easy, because three universities and three CSOs were already involved in the topic. The debate ran between June and August 2012 and generated 24 comments.

The third substantive area within the PERARES project for debate was on 'a code of conduct for research with and for the Roma people' which ran between November 2012 and January 2013. It originated with the partners involved in a work package already dealing with this topic, so once again, preparation was rather easy. The partners reported that the comment and interest from a representative of the ERGO network was particularly useful, as he was interested in further participatory research approaches with and for Roma people.

After the above eight debates, the following dialogues took place in last part of the project:

Promoting Local Sustainable Development (May – November 2013, 6 comments)

Food Gardens and the City (July-September 2013), 4 comments).

Including:

- Social integration through urban food gardening
- Potential to supply cities with fresh food
- Agriculture in a city – a discussion in Hebrew

Natural resource issues across Europe – framing current knowledge about political and technological processes (November 2013 – February 2014, 28 comments). Including:

- Underground and surface water pollution in gas shale exploitation by fracking and mining industry
- Gas and oil exploration in Ireland and Crete
- Sustainable exploitation of national resources

After each debate a member of the editorial team entered potential research questions that emerged and entered them on the Question and Answer exchange page in order that these questions could then be shared with the Living Knowledge network. In total, 23 research questions were entered following the debates: <http://www.livingknowledge.org/discussion/debate/questions-requests/>

The following four question areas have already been taken up for answers to be provided, conducted as student projects, and/or other follow-on activity:

1. Nanotechnology applications
 - a. In response to the information provided in the nanotechnology debate about applications of nanotechnology in cancer medicine through liposomes, the first drug-carrying nanotechnology carrier to reach cancer clinics, a question was asked about what other cancer treatment pathways were possible through applications of nanotechnology. A PhD student in nanotechnology at University of Cambridge wrote a response about a further application, DNA origami, forming DNA into three-dimensional nanoscale structures, with the aim of making a drug delivery vehicle to recognise the surface of cancerous cells as opposed to other fast-dividing cells in the body:
<http://www.livingknowledge.org/discussion/debate/ticket/liposomal-drug-delivery-systems/>
 - b. University of Twente (NL) put three questions from the nanodialogue in its offering to students (Summer 2014), and contacted the CSOs responsible for these questions to allow for direct contact with the student researchers once these have been completed.

2. What is the impact of the recession on experiences of domestic violence, and domestic violence services?
 - a. Student project finalized in 2013: The Impact of the Economic Downturn on Experiences of Domestic Violence in Cambridgeshire, with Cambridge Women's Aid and other CSOs:
<http://www.livingknowledge.org/discussion/debate/ticket/impact-recession-domestic-violence/>
 Although a small-scale study, there were findings of interest in the context, including the suggestion that since the start of the economic downturn there has been a 'depersonalisation' of services. Services have become more 'generic', for example with a move from office-based support for benefit applications to online applications. This has led to services under pressure being less able to provide individualised support to survivors of domestic violence. Recommendations included continued attention by statutory organisations to the ongoing development of guidelines on meeting the special needs of domestic violence survivors. Also, findings suggested that funding should be applied to mental health projects and employment training for survivors, to help them cope psychologically with increased difficulties of 'moving on' associated with the economic downturn. Additionally, it was urged that the commissioning process should include a close examination of the value voluntary services offer, measuring the personalized support given by organisations.
 - b. Also, after the domestic violence debate, it was explored whether the method of an online debate could be used to help formulate research questions for future funding calls for research into the issue of domestic violence. This was explored by Vrije University Brussels (VUB) with a researcher from University of Cambridge (UCAM). The studies carried out by Masters students for PERARES on domestic violence, and feedback and questions from CSOs during the domestic violence online discussion, provided evidence for suggesting to the European Commission that this process of engaging with CSOs indicated the need for research and action plans on practices across Europe for effectively screening women regarding domestic violence during pregnancy. VUB and UCAM wrote a potential call text on the topic to share with colleagues at the

European Commission in funding areas that could relate to domestic violence research.

3. Code of conduct for research with and for Roma people
 - a. After the debate about the code of conduct for research with and for the Roma people, the PERARES members who worked on the debate were in contact with the ERGO Network for European Roma about grassroots empowerment. As a potential new funding opportunity for research and community development together, the Community-Led Local Development (CLLD) programme (2014-2020) has been identified, where Roma are one of the priority areas.
4. What is the present state of the treatment technologies for waste water resulting from exploitation of shale gas by fracking?
 - a. The debate related to mineral resources exploitation impact concluded that environmental technologies have to be adapted to specific impacts of mining industry for mitigating negative effects and better legislation and public participation is compulsory. An undergraduate student did her graduation project (2013-14) at University Politehnica Bucharest (UPB) on the present state of the treatment technologies for waste water resulting from exploitation of shale gas by fracking. The findings were presented in the student graduation thesis emphasising the lack of information about the waste water composition and reasonable techniques for reducing the content of waste water. Despite the great scale of fracking and water scarcity in many regions, the proposed techniques are just at pilot/proposal stage and extremely expensive, many of them generating other wastes that should be safely disposed. Only a permissive legislation will generate attractive production costs of shale gas.

Recommendations for the future of the on-line dialogue include:

- Further scoping on other exercises to gauge public and civil society organisation priorities for research, and the online channels and platforms used for these
- Further investigation of how to operate transnational online discussions in multiple languages
- Continue to pair online activities with face-to-face and live events, meetings and consultations too, with public groups and invited groups of civil society organisations
- Online debates could feed into new research projects by academic researchers or students more easily if research funders and research leaders used this kind of tool at the start of research programmes
- Consideration should be given to how science shop and public engagement staff can provide resource through researchers, students and others to answer questions that arise through online debate that can be answered with reference to previous studies and scientific literature, and the interpretation of this literature
- Online interactive tools can help science shop coordinators and public engagement staff to make connections transnationally about potential areas of mutual interest in community-engaged research

We conclude that there is still a challenge in on-line debating. Science Shops normally set research questions face-to-face with organised groups; on-line we deal with scattered participants –which have less well articulated common objectives and questions- and can

use only written text (in a specific language mostly) as communication tool, reducing speed – because of moderation- and clarity of communication.

3) Developing research questions in co-operation among three countries

On two issues, PERARES partners set-up tri-national co-operation to develop research questions.

Three universities and three CSOs worked together on the issue of research on domestic violence, see: <http://bit.ly/1vfpB4m>. The final report gives insight in barriers to identify and respond to domestic abuse cases, with a secondary focus on immigrant women. The report gives policy recommendations and identifies barriers faced by health care workers as an issue to take up in European research agendas.

Co-operation with Travellers' and Roma groups with researchers in three countries also led to a Code of Conduct for research with marginalized groups: <http://bit.ly/1rzvIP0>. We worked with Roma and Travellers groups to describe how researchers/policy makers can do/support research with them. The final report articulates requests from CSOs for the future cooperative research agendas and shows what the teams achieved in their participatory research with and/or for Roma and Travellers on local human rights.

4) Tools and (strategic) support documents

The PERARES project also developed some tools and (strategic) support documents:

4a) Higher Education

A Handbook about “How to embed civil society driven research in curricula and Higher Education strategies”: <http://bit.ly/1aeCrKc> ***and a Practical Guide to developing policy and strategy:*** <http://bit.ly/18R0oD3>.

In total, 14 good practice pilots were done in which models/tools from one partner to include aspects of community-based research in curricula were tested in another region or discipline. This sharing of approaches advances student competences across Europe.

We conclude that if Higher Education Institutes (HEIs) and research institutes are to truly respond to the research agendas of CSOs, Science Shop need to be more than small marginal enterprises within HEIs. They need to be embedded within the HEI and to have access to a range of supports and mechanisms to disseminate research requests and have them responded to.

The experience of longstanding Science Shops is that embedding a new initiative in policy and successfully developing the curriculum to enable the work to flourish takes time, energy and focus. Developing example projects is important but it is vital to create a policy environment for the work by widening the circle of people within the HEI and beyond it, who are invested in the success of the project. Building relationships is at the heart of this process. Practitioners need to establish themselves as credible and passionate, while accommodating the needs and priorities of those they work with.

For many people this means moving outside of their comfort zone. It means taking risks and doing things differently from how they have done them before. It means developing a broader knowledge about their HEI, which should benefit them in other ways.

“It is not easy to play chess simultaneously on different boards. Many Science Shops are understaffed anddo not know how to give more priority to their strategic development within international, national, regional or university policies” (Established Science Shop)

“Getting a copy of a proposed policy within your HEI or funder and suggesting a few changes can make a big difference to the survival of a CBR project.” (Established Science Shop)

However this also offers exciting opportunities to connect the work to other people and to ensure that the value is acknowledged by other people. Policy work and creating a strategic context for Science Shops to flourish are opportunities to be seized, not jobs to be dreaded. Small things can make a big difference. Experience from longstanding Science Shops suggests that this work can assure the success of a Science Shop or protect it in times of danger.

“We started out in the educational office, then moved to our research office. We’re now in student support. Our targets have varied from number of subjects, to number of community groups to numbers of students we work with. The context changes but the core work stays the same.” (Established Science Shop)

Through Science Shops, the *combination* of research, teaching and learning and outreach can be embedded in the curriculum and higher education policy.

4b) Role of research funders

A Full Report about the role of research funders in supporting civil society driven research was written: <http://bit.ly/1jDxqzN>, which was summarized in a Policy Brief: <http://bit.ly/1hHMrNI>

For this, we interviewed Research Funders in Ireland, UK, Germany and The Netherlands, to discover practice and attitude towards funding research co-operation with CSOs. A number of other approaches were described from literature. We also monitored a post-doc project that was set up in co-operation with a CSO with a fellowship from a private foundation, and studied reports on more of these co-operative projects, to inform Research Funders about the dynamics of these collaborative projects.

Key findings:

A wide range of terms are used to describe engaged research with civil society organisations. This has an implication for levels of understanding of research partnerships amongst research funders. For example community engaged research or *bürgerbeteiligte Forschung* is used in Germany whilst in the UK Public Engagement with Research is the accepted terminology. Some countries are still developing an adequate terminology to describe this work. There are national and international commitments to research partnerships and an emerging interest in examining and spreading out models of good practice in research with and for CSOs.

There are many models of good practice across Europe of research funding organisations supporting research with and for CSOs and building infrastructure to support this work.

Even in countries where there is less of an understanding of research with and for society, there is some interest in how this is done in other places. When research with and for CSOs was explained, interviewees from research funding organisations often expressed an interest in the concept. These models are often isolated and lessons learned do not necessarily feed into the larger research funding structures, nor (with some exceptions mentioned here) are they generally exchanged at a national or cross national level. In many countries the healthcare sector in particular has led the way in engaged research with and for CSOs.

Research with and for CSOs often does not fit into structures of applied research. Firstly, research funding policy to support applied research is often related to income generation rather than research with and for society. Secondly, funders reported that there is still a perceived tension between the understanding of academic excellence (in curiosity driven research) and social relevance, leading to some resistance amongst academics to the idea of engagement.

To date, European funding programmes have represented the only significant mechanisms for supporting EU-wide coordination and collaboration in Science with and for Society research. The actions supported have already made, and will continue to make, important contributions to both the understanding of problems and the development and widespread dissemination of effective solutions.² Several correspondents to the MASIS report³ note that the framework programme is the sole vehicle for accelerating efforts, because there is no funding (Hungary, Cyprus, Sweden) or insufficient funding (Czech Republic) available on a national level within the area of Science in Society or mention an undeveloped 'Science In Society' research culture (Ireland) as the explanation for this tendency.⁴

Horizon 2020's focus on Responsible Research and Innovation (RRI) is acting as a driver to encourage research funders to consider research with and for civil society. It was explicitly mentioned in this context by funders in the UK, Ireland and Germany.

Research funders felt that to get a better understanding of research with and for CSOs they need information to improve understanding and knowledge of methodologies for research with and for CSOs, and structures to support this work. They suggested that this need for understanding also applies to the majority of researchers.

² technopolis [group] & Fraunhofer ISI (Dec 2012): Interim evaluation & assessment of future options for Science in Society Actions, http://ec.europa.eu/research/science-society/document_library/pdf_06/executive-summary-122012_en.pdf, last accessed 4.11.2013

³ 'Monitoring Policy and Research Activities on Science in Society in Europe' (MASIS), http://ec.europa.eu/research/science-society/document_library/pdf_06/monitoring-policy-research-activities-on-sis_en.pdf

⁴ http://www.masis.eu/files/reports/monitoring-policy-research-activities-on-sis_en.pdf#page=1&zoom=auto,534,691, p.57

Where research funders have developed policy and practice to support research with and for CSOs, there has been strong leadership which has enabled changes in structures, support and funding. Where models of funding are shared, interesting practice develops. For example, the PICRI funding model and the 'Researchers-Citizen' programme in some French regions were based on the Canadian CURA programme, which allowed the organisation and implementation of complex and innovative research and fostered the mobilisation of knowledge towards participants. The CURA programme itself, in turn, was inspired by the Dutch Science Shop model.

Another good model, at the European level, was the FP7-funding scheme 'Research for the Benefit of Specific Groups – Civil Society Organisations (BSG-CSO)' which allows CSOs find responses to their needs. This scheme was inspired by both the Science Shop model and the CURA programme.

There are also good models for supporting culture change and sharing practices, such as the National Coordination Centre for Public Engagement in the UK, or competitions such as *Mehr als Forschung und Lehre* initiated by Donors Foundation for German Science.

Some funders suggested that there was a need to ensure visibility for and support research with and for CSOs activities. Institutional mechanisms such as Science Shops may offer one way to ensure visibility for this work. Even in countries that had a strong commitment to carrying out research with and for society, it was acknowledged that this process is still in development and further lessons need to be learned.

From our studies of co-operative projects in France, we learned the following (see: <http://goo.gl/ACiH8o>):

There are three French regional funding programmes for research projects undertaken in partnership between public research laboratories and CSOs (*PICRI*, *ASOSc*, *Chercheurs Citoyens*). One of the main findings is that these calls are so successful that their selectivity is above average, as less than one third of the projects submitted is funded. If the start-up of these programs created a deadweight effect, and a significant number of projects were initially ineligible, this proportion declined sharply thereafter. Project selection involves academic experts and experts from civil society, but assessment procedures differ from one call to another.

The sustainability of these programmes will strongly depend on the renewal of the regional executives in 2015. The idea of securing partnerships through dedicated platforms funded by the region is frequently mentioned. They all recognize a favourable political context since the last French Law on Higher Education and Research and the establishment of the *Science With and For Society* programme of Horizon 2020. Finally, political and administrative officials of these regions met several times to share their experiences and are willing to contribute to the promotion of this type of programmes in other regions

We could also use an existing inventory of nearly 200 collaborative research projects funded by PICRI, ASOSc, Chercheurs Citoyens or REPERE programmes, and others conducted outside of these funding schemes, in our study. We studied three projects in detail, in the agro-food sector.

Two types of questionnaires were used for the series of interviews we conducted with stakeholders in these projects (researchers and CSO's employees). The key findings of these interviews were that these projects are included in broader partnership existing before the project design, and intended to continue beyond the project. In each case, the need for knowledge or expertise was really part of the activities of the civil society partner. These projects have been possible because the researchers were already aware of the need for research to meet societal needs.

Processes are similar in many aspects of these three projects. The distribution of roles is always clearly established from the outset. It is directly related to the skills and proficiencies of each partner. In general, the researchers carry out the research and the design of protocols, but it is validated by the steering committee. This committee includes the active participation of all partners, and in some cases includes researchers or associations who are not partners in the project. The word "collegiality" was very often used. This partnership is seen as a space for dialogue that goes beyond the strict framework of the project.

These projects are common in the fact that they didn't detail the evaluation process at the beginning of the project. Most often, practice has been to encourage flexibility and to understand and justify deviations from the objectives.

The two completed projects showed that it was difficult to publish in peer reviewed scientific journals where there is a lack of recognition of academic-civil society participatory research practices. However, other modes of dissemination (public communication, conferences, seminars, video sequences) were planned towards project-specific public. But, in the case that these meetings are organised by CSO partners, it is rare for other researchers to attend.

There is an agreement both on the positive aspects of participatory research and the constraints experienced. The project duration is sometimes considered too short to be part of a more comprehensive piece of research. The administrative burden is also a problem frequently mentioned, especially by CSO partners. Projects may not continue beyond the funding period. Developing a mutual understanding, a common language and common working methods, that satisfy all partners, can take time. Academic structures are not always set up to engage in this type of research that can be more difficult to frame and the outcomes harder to measure or value. Projects may also take more time simply because of the many exchanges between partners at all stages of the project due to the participatory nature of the process. Moreover, the "publish or perish" leitmotiv common in academia is a major obstacle to the development and sustainability of this type of research.

4c) Scenario workshops

An overview of our experiences in using Scenario Workshops to co-construct strategies and research plans is given: <http://bit.ly/1iT4Tpu>.

We tailored the scenario workshop methodology as a tool to three different contexts; Strategies, Synergies or Development. This was done through six meetings and workshops in France, and three workshops in the UK.

We recommend that public funders of research should create funding lines (or specific calls for projects) that allow for scenario workshops and similar processes that can facilitate collaborations between researchers from research institutes and CSOs, and the set-up of participatory research projects.

4d) Evaluation

We developed materials (i.e. forms) to evaluate Science Shop type of projects, at the proposal, mid-term, end-of-project and post-project stages. The report also contains a chapter on economic evaluation of Science Shops: <http://bit.ly/1xE8Qm0>.

The evaluation kit has been translated into Dutch, French, German and Italian.

Some recommendations for future work on this are:

1. Develop an online evaluation form in different languages
2. Develop an institutional framework for evaluation at several levels: Science Shop, institution, nation
3. Connect evaluations with so-called 'valorisation' procedures to make the added value of Public Engagement with Research (PER) more visible ('valorisation' = adding value; a word coming from Dutch policy papers)

The economic evaluation concludes that both large and small Science Shops can be economically efficient.

Moreover, there are a number of other important aspects to keep in mind when evaluating the social desirability of Science Shops. The Cost-Benefit Analysis only took the direct costs and benefits into account. It can easily be assumed that the projects conducted by Science Shops have not only led to direct costs and benefits, but also to indirect ones. These indirect costs and benefits are however very difficult to measure in monetary terms. Moreover, Science Shops themselves do not only focus on answering research questions for clients, but do also bring a valuable contribution to the education of students by offering practical topics for, amongst others, master theses. The fact that Science Shops are generally linked to universities makes them the ideal bridge between science and society and allows them to often bring new, innovative approaches to answer research questions.

4.1.4 Dissemination and Impact

Dissemination

Our website was developed and used to share our deliverables (<http://www.livingknowledge.org/livingknowledge/perares>). For news and announcements, and discussions, we made use of the Living Knowledge Discussion list and the LK Newsletter group, which currently have 520 (LK Discussion List) and 410 (LK-Newsletter) subscribers.

We produced quarterly Living Knowledge Newsletters and the annual Living Knowledge Journal. An overview of all the News Letters and Journals produced during PERARES can be found here: <http://bit.ly/13kJBM8> (May 2010 - Oct 2014 made with PERARES support).

The Living Knowledge Journal is printed in 1400 copies and has 620 subscribers; the additional copies are distributed through institutional subscribers and during events. It is the official publication of the Living Knowledge Network. Since August 2005 it is published once a year. The journal addresses all people interested in community based research, background information, and the impact of community based research. It is distributed to the members and subscribers of the network as well to journalists, mediators and project partners. The purpose of the LK magazine is to disseminate timely and informative articles that represent the current state of the discussion on Science Shop / Community Based Research matters. The articles are selected for appeal to readers engaged in research and applications across the broad spectrum of community based research. Although a moderate level of scientific understanding is assumed by the authors, articles should be clear enough to inform readers who work outside the particular subject area. Every journal article receives a professional editorial review. The related Newsletter is made three-four times per year for quick communications.

Also, we facilitated the organization of the 5th and 6th Living Knowledge Conferences, in Bonn and Copenhagen:

The 5th Living Knowledge Conference was held in Bonn, May 10-12, 2012, hosted by the Wissenschaftsladen Bonn, and provided an opportunity for policy makers, academics and CSOs to consider current practice and future opportunities in the field of research partnerships. See: <http://bit.ly/1tCZHuT>

Additional conference objectives were to

- Evaluate strategies for embedding community engaged research in universities
- Strengthen the participative and empowering communication culture as a basis for healthy knowledge societies
- Influence international research policies and priorities
- Advance the way Science Shop like initiatives can engage CSOs and researchers in collaborative research activities
- Encouraging co-operative and partnership working
- to exchange with other projects under the science in society calls and beyond;
- Bring Science Shops to the policy agenda in Germany

To achieve this, the call for papers and contributions to conference was structured in six conference themes:

- Setting shared research agendas by CSOs and Research
- The role of Higher Education in creating knowledge with communities
- Communities and students learning together
- Evaluation and quality improvement: New lessons learned on measuring the value of community engagement and collaborative research
- Developing partnership working for research – civil society engagement
- Policies to support collaborative research relationships

The call for papers led to more than 100 submissions. In the end 63 session presentations and 8 panel presentations, one panel discussion and 22 Poster presentations formed the conference program. Contributions and registrations from 34 countries reflect the large variety of experiences from across Europe and worldwide proving the innovative power and the scientific value of these initiatives. 18 scholarships to cover accommodation and conference fee were offered.

A conference website was set up to supply all relevant information for speakers, participants and the media. 250 registrations were counted in preparation of the conference. Finally 220 participants took part in the sessions and plenary presentations.

The plenary sessions of the conference were broadcasted to a broader audience by video live streams. It was not possible to make workshops and smaller sessions available in audio formats. All 21 recordings were saved to files and uploaded to YouTube. 373 call-ins were registered for the live streams with a maximum of 40 watchers of the same presentation at the same time. Online participants logged in from 20 countries including Australia, Argentina, South Africa and the United States. The majority of followers came from Germany, followed by the UK, Japan, Ireland and the Czech Republic.

The 6th Living Knowledge Conference, in Copenhagen April 9-11, 2014, was a platform to exchange and discuss findings and results from the second half of the PERARES project. The conference was hosted by the Centre for Design, Innovation and Sustainable Transition (DIST) at Aalborg University Copenhagen, where some of the researchers are among the founding members of the International Science Shop Network, Living Knowledge. See: <http://bit.ly/1p0NhwV>.

Additional conference objectives were to

- Evaluate strategies for embedding community engaged research in universities
- Strengthen the participative and empowering communication culture as a basis for healthy knowledge societies
- Influence international research policies and priorities
- Advance the way Science Shop like initiatives can engage CSOs and researchers in collaborative research activities
- Encouraging co-operative and partnership for the exchange with other researchers within community-based research and citizen science;
- Bring community-based research and co-creation and participation to the policy agenda in Denmark
- Give participants an impressions of some civil society initiatives in the Copenhagen area

To achieve this, the call for papers and contributions to conference was structured in eight conference themes:

1. Social innovation – empowering civil society?
2. How to involve multiple users in design of assistive technologies
3. Co-operation in multicultural contexts – North-South co-operation
4. Sustainable development: from vision to transition
5. Developing competences through problem-based learning with civil society
6. Developing the university – civil society interaction
7. How to organize and manage science shops and community-based research units?
8. Governance of science and technology with civil society

The call for papers led to more than 200 submissions. In the end 142 session presentations and 8 panel presentations, and 8 Poster presentations formed the conference program. Contributions and registrations from 27 countries reflect the large variety of experiences from across Europe and worldwide proving the innovative power and the scientific value of these initiatives.

A conference website was set up to supply all relevant information for speakers, participants and the media. The initial limit of 250 participants had to be raised due to a huge interest in the conference. Finally 257 participants showed up, with about 20 last minute cancellations.

The plenary sessions of the conference were streamed live to a broader audience through YouTube. All 8 presentations from the plenary were saved to files and uploaded to YouTube, divided into 3 videos representing the introduction and the 2 plenary sessions. The live stream was viewed 51 times, although this does not necessarily represent 51 unique connections. Online followers came from six countries - Canada, Denmark, United Kingdom, New Zealand, Italy and South Korea.

Besides more traditional paper-based sessions with a number of oral presentations and discussions the conference included also innovation in the session formats, by organizing so-called interactive poster sessions with a combination of short oral presentations followed by parallel dialogues between authors and participants at the single poster. Furthermore a tool-based session was organized with focus on methods for creating academia-civil society cooperation.

Excursions were organized as part of the conference in order to give conference participants the opportunity to visit innovative civil society initiatives in Copenhagen. The three initiatives that were visited were:

- Copenhagen Food Community
- Floating City Community
- Bicycle Innovation Lab

Further dissemination:

The PERARES project was presented at several international and national conferences and workshops, the CUexpo 2011 in Waterloo, Canada, the 2011 AUCEA conference in Sydney, Australia and the NCCPE Engage conference 2010 in London. WilaBonn gave a presentation on Science Shops, the Living Knowledge Network and the PERARES project at Guelph University Library and the OLA Super conference (Ontario Librarian Association) in February 2011 –for exploring connecting factors for Open Access activities and co-operation possibilities with librarians to foster access to research resources for CSOs.

A poster on the Israeli part of PERARES was presented by the Heschel Institute, at the annual conference of the Israel Society for Ecology and Environmental Studies. InterMEDIU Bucharest was invited to participate in Călărași, Călărași county, in a three days event “*Science and Technique in Schools – Florin Vasilescu*” as jury members of panel to adjudge the winners of model competition. During the session of project presentations, the outcome of PERARES project and possible future collaborations were presented. InterMEDIU Bucharest also attended the EUCU.NET/SiS Catalyst Conference “*Visionary or Fantasy? Creating open spaces for science communication and social inclusion*” at University of Vienna in 10-12 September 2014 (http://eucu.net/conference_vienna). During poster sessions, the PERARES project and InterMEDIU Bucharest’s work were briefly described.

Networking contacts were established, through participation in a conference organized by German ‘Stifterverband’ to present winners of a competition ‘Mehr als Forschung und Lehre’ (More than Research and Teaching’) and following an invitation to present at a workshop “Hochschulen vor Ort - Partner der Regionalentwicklung” organized by University Neubrandenburg.

Presentations were also made at the UCEC 2012 in Chiang Mai, Thailand, the 2012 Midwest Science Shop Network Meeting in Chicago, USA, the BSA Science Communication Conference, London, UK, the 2012 Tech4Dev Int. Conference, EPFL, in Lausanne, Switzerland, the CUexpo2013 in Corner Brook, Newfoundland, Canada, the 2013 Canadian Knowledge Mobilization Forum in Mississauga, Ontario, the UCEC 2013 in Padang, Indonesia, the 2013 GUNI conference on Higher Education in Barcelona, Spain, The 2014 ECSITE conference in the Hague, the Netherlands, at 2014 ESOF in Copenhagen, at the ENSSER annual conference 2014 in Berlin, the APUCEN summit 2014 in Penang, Malaysia and the 2014 GUNI launch event of the world report on higher education in Barcelona, Spain.

Presentations were given and contributions were made at workshops organized by the CONSIDER project in Brussels and Lille, and by Stifterverband für die deutsche Wissenschaft in Bonn, by the Institute for Social Innovation in Vilnius, Lithuania, and at strategic dialogues and foresight workshops organized by the German Ministry for Education and Research.

A final dissemination event was held at the European Parliament, on Sep 29th 2014: “*Who owns the European scientific research agenda? Responsible Research and Innovation: with and for European citizens and their organizations*”. It was organised by the Group of the Greens in the Parliament, and chaired by PERARES Co-ordinator Henk Mulder and Belgian Senator Petra de Sutter. Speakers next to Henk Mulder and Petra de Sutter were acting director of the Innovation Union and European Research Area Peter Droell, Budd Hall, UNESCO Chair “Community-based Research”, Canada; Norbert Steinhaus, Co-ordinator Living Knowledge Network; Emma McKenna, Science Shop Belfast; Sophie Duncan, National Coordination Centre for Public Engagement, UK; and Balint Balazs, ESSRG, Hungary.

All dissemination activities are listed in QUEST and can be found in the appendices of this Final report.



The PERARES consortium at the European Parliament.

Impact

With the results described before, we have realized our intended impact:

1) An improved transnational cooperation between research bodies, in the domain of public engagement in research;

PERARES has succeeded in bringing together a group of research bodies and CSOs with different backgrounds, who are learning together. They are engaged in joint studies to improve PER in research, and have jointly set-up an on-line transnational knowledge debate.

2) An improved mobilisation of researchers to engage with civil society in their practices; During PERARES, the number of researchers involved in PER has grown, both by us involving them in various debates and by our setting up of more Science Shops or other means of doing research with CSOs. Also the parallel studies performed show how more researchers can become active in engagement activities.

Our dissemination activities and conferences, including the open Summer Schools on how to operate a Science Shop, made our resources and knowledge of good practices available to non-PERARES partners, thereby making it easier for scientists all over Europe and beyond to engage with civil society.

3) An increased participation of civil society actors in research activities and an enhanced incorporation of the needs and concerns of civil society in research strategies;

This is one of the main achievements of the PERARES project. First of all, the number of interactions between CSOs and research institutes has increased. This was supported directly in the social sciences studies on domestic violence and with Roma/Travellers, in which CSOs participate in the research process, and in the on-line and face-to-face dialogues. Most visible, this has been done in a large number of pilot projects that are running during the start-up phase of the ten new Science Shop structures, and a post-doc project that was monitored.

4) The definition of new cooperative research agendas involving researchers and civil society actors and the combining of their respective knowledge and experiences;

PERARES is has an impact on the definition of new cooperative research agendas. This is visible both at local level (individual dialogues -> research requests -> local Science Shops' projects), especially at the new science shops. The same was done in local dialogue events to prepare for the on-line dialogues, and transnationally, especially through the two specific areas of the social sciences (domestic violence and Travellers/Roma).

The Lund Declaration underlines the importance of addressing societal needs and ethical questions in research and innovation. Science Shops and similar provide a unique, demand driven interface between science and society. The evaluation approach undertaken in PERARES is a valuable tool for reflecting on those interfaces, and the co-operative research projects done. This type of approach will be useful for evaluating processes and deliverables in the many Horizon 2020 research consortia that now have to engage with civil society. For further impact, it is recommended that such self-evaluations be part of future Horizon 2020 research policy.

With increasing global risks and challenges depending on ever-increasing spheres of expertise, a policy on societally-responsible science and innovation cannot be measured solely on narrow economic benefits and job creation metrics. Science with and for society requires varying evaluation techniques that is sensitive to mutual learning and dialogue, as well as the multi-way, democratic transfer of knowledge and critique between actors within the academy, industry, media, regulatory bodies, civil society and local communities. As Civil Society Organisations (CSOs) are visible as agencies requested to apply in consortia across the many strands of Horizon 2020 (particularly Science With and For Society (SwafS) and the 'social dimension' of the European Research Area in Responsible Research and Innovation (RRI)), the time has come for community-based research and initiatives, and the co-production of knowledge by science and society assemblages.

4.1.5 Contact details

The project website gives information on the participants, contains all deliverables and links to the on-line dialogue tool. The URL is:

<http://www.livingknowledge.org/livingknowledge/perares>

The project co-ordinator can be reached at this address:

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University of Groningen, Wageningen University (WU) and Research Centres (SDLO) (Netherlands), Free University Brussels (Belgium), Science Shop Bonn; WTT Science Shop Zittau (Germany), University of Glamorgan (Until 10/2010), Queens University Belfast; University of Cambridge; University of Newcastle (UK), University College Cork; Dublin Institute of Technology; Dublin City University (Ireland), University Rovira I Virgili Tarragona (Spain), Foundation Citizen Science; Foundation for the Development of an Active Citizen Research ADReCA; University of Lyon (France), Swedish Research Council (Until 10/2011) (Sweden), Technical University Crete (Greece), Politehnica University Bucharest (Romania), ESSRG Science Shop (Hungary), University of Stavanger (Norway), University of Sassari (Italy), European University (Cyprus), Institute for Baltic Studies (Estonia), Aalborg University (replacing Technical University of Denmark from Sep 2012) (Denmark), Heschel Centre (Israel).