



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

## **Modules for Training of Science Shops Staff**

### **Science Shops: the Basics**



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 741657.

This is an introductory training about Science Shops. It can be used as a stand-alone training session if only an overview into Science Shops is needed, or as a first module in the series of modules.

## Objectives

In the area of expanding knowledge, after this module, participants will:

- Become familiar with the Science Shop concept, its benefits and relationship with public engagement and RRI
- Understand the principles of running a Science Shop and related challenges
- Have gained an overview of the steps to establish a Science Shop

In the area of skills and attitudes they will:

- Strengthen their interest in furthering their knowledge and skills with regard to Science Shops
- Be interested in establishing a Science Shop at their institution
- Be able to plan the first steps to establish a Science Shop

## Session outline

Methodology	Material required	Duration Total: 2 hr 30 min
<b>1. Welcome</b>	Training agenda (printed)	5 min.
<b>2. Personal introductions and initial evaluation</b>	"Post-it" notes (different colours)	15 min.
<b>2. Sharing experiences</b>	Invited speakers or videos	60 min. (including Q&A and discussion)
<b>3. Presentation</b>	- Projector & large screen - Key messages - PowerPoint presentation	90 min. (including Q&A and discussion)
<b>4. Interactive exercise</b>		30–40 min.

## Description of methodologies

### Welcome

The trainer welcomes participants, presents the session's aims, distributes and comments briefly on the training agenda.

### Personal introductions

Prepare pieces of paper with the first part of sentences, one per participant. Ask participants to take one of the pieces of paper when entering the room. At the beginning of the session, ask participants to present themselves to the group, by saying their names and organisations and completing the sentence.

The sentences could be:

- Doing research with the community can be seen as a valuable research approach to...
- I would be happy to represent my community in a project which...
- I would not agree to take part in a project which...
- When I think about community-based research, I feel...

### Initial evaluation

Attach 2-3 sheets of paper with questions for the participants on the wall. Questions could be:

- What questions do you have when thinking about the concept of Science Shops? (Please use red sticky notes)
- Why are you attending this training and what are your expected outcomes? (Please use green sticky notes)

Give sticky notes to the participants, ask them to write answers to every question (on a separate sticky note) and put them on the wall. At the end of this training invite all participants to the wall and together go through all questions and comments and see if they were answered during the day.

### Sharing experiences

Here, three different cases of Science Shops are presented. It is up to the trainer to choose one or two cases and present them to the participants, or to find another cases or invited presenters.

## Case 1

### **The Science Shop Language, Culture and Communication, University of Groningen, the Netherlands (Science Shop for the humanities)**

The **Science Shop Language, Culture and Communication** is part of the Faculty of Arts, University of Groningen, Netherlands (the Science Shop is fully integrated into the structure of the university). It was set up in 1986, so it is well-established and reflects a long-lasting tradition of CBPR in the Netherlands.

The Science Shop works with a wide range of stakeholders:

- public libraries;
- museums;
- local governments;
- foundations;
- welfare organisations;
- schools and other educational organisations;
- communities (such as neighbourhood groups or groups of parents).

Usually the Science Shop receives around 25–30 questions a year, but it can only manage a maximum of ten projects a year because of its size. Although the Science Shop receives sufficient research requests, sometimes the coordinators themselves identify organisations with interesting problems to investigate.

The Science Shop is fully integrated into the structure of the university. Most staff and other direct costs are funded by the university itself. The university covers the salary of two part-time (2 days a week) coordinators and provides the Science Shop with an office and resources, such as computers. Depending on the type of organisation they conduct research for, occasionally the Science Shop asks for a small financial contribution to ensure the students do not have to cover any costs themselves. Fees charged by the Science Shop's coordinator for giving external lectures provides a small amount of additional funding too.

The Science Shop recognises the importance of communicating its work on issues of societal relevance to the broader public via its website, social media, traditional media as well as public lectures, workshops, open access reports and sometimes popular science articles. They have some media partners and news is spread nationally, regionally or locally, depending on the subject.

#### **Questions for the discussion:**

- What are the success factors of the Science Shop Language, Culture and Communication?
- Why it is important to spread news about the Science Shop projects?

**More information:** SciShops deliverable 2.2. “Existing RRI tools and successful participatory community-based research case studies report” (Garrison et al. 2018).

## Case 2

### Beta Science Shop at the University of Groningen, the Netherlands (Science Shop for natural sciences)

A YouTube video presenting Beta Science Shop, covering natural and health sciences, at the University of Groningen (the Netherlands). Explains the Science Shop concept, includes comments from representatives of the Science Shop, faculty and former 'client' organisations, talking about different benefits of the Science Shop and giving examples of concrete projects.



[https://youtu.be/2-l\\_2zXT3Qk](https://youtu.be/2-l_2zXT3Qk)

#### Questions for the discussion:

- What are challenges for science nowadays?
- What are benefits of Science Shop projects for scientists?
- What are benefits for Science Shop clients?

## Case 3

### Heart and Lung Shop at Imperial College London (pop-up Science Shop)

Temporary Science Shops, also known as pop-up Science Shops, can be a useful model for those that wish to pilot the concept of a Science Shop at their organisation. Pop-up Science Shops can take a variety of formats. One example is the pop-up Science Shop run at Malmö University (Sweden), which was piloted twice during 2017 as part of a regional social innovation project involving a number of partners. The idea was to prototype a science shop that was less connected to a physical space or one institution. Four staff at Malmö University have been involved in driving the project forward; however, they do not have formal roles but function more as an informal network of people facilitating the initiative. The model involves inviting CSOs to series of meetings to turn challenge into research questions, which are subsequently narrowed down and formed into concrete collaborations.

This example, the Heart and Lung Shop at Imperial College London, was primarily used as a vehicle for public engagement with science. Activities like this help to initiate dialogue between researchers and the general public, see if researchers' work is of interest to members of civil society, and gauge if more questions are raised. This approach of using a temporary retail space to engage directly with members of the public could also be of use to Science Shops in terms of soliciting research requests directly from citizens.



<https://youtu.be/oA3Vczu2TmU>

Researchers at Imperial College London used empty retail space in Hammersmith's Kings Mall to set up The Heart and Lung Repair Shop. Scientists and clinicians from the National Heart and Lung Institute (a part of Imperial College London) collaborated with artists to develop visually captivating spaces and interactive experiences that stimulated discussion about cardiovascular and respiratory research topics, and their social, ethical and cultural implications. Activities included visual exhibits and displays, participatory installations, demonstrations, games, workshops, talks and debates, all of which were delivered and facilitated by researchers.

The pop-up shop was designed to allow scientists to share their research and work with public. In return, members of the public were encouraged to share their views on what they had seen and what they knew about how these two vital organs function.

As the Imperial College London example illustrates, pop-up Science Shops can be used when aiming to encourage citizens to actively participate in science by formulating research requests, and mobilise them to feed science and research with their real needs, expectations and ideas.

Questions for the discussion:

- What benefits for researchers were generated while running a pop-up shop?
- What benefits did the participants get?
- Pop-up Science Shop – pros and cons

**More information:** Dowell, E. (2017). *Pop-up Science: Transforming empty shops into creative spaces for science engagement*. Available at: [http://www.imperial.ac.uk/media/imperial-college/medicine/nhli/public-engagement/Pop\\_Up\\_Science\\_eBook.pdf](http://www.imperial.ac.uk/media/imperial-college/medicine/nhli/public-engagement/Pop_Up_Science_eBook.pdf)

## PowerPoint presentation

The aim of this presentation is to provide a general introduction to the idea of Science Shops, their benefits to various stakeholders, and their impact on society. This presentation also provides an overview of the steps needed to run a Science Shop. As more detailed training on these steps is provided in other modules, this overview serves as an introduction to subsequent sessions and can be run through quickly. However, it can also be used on its own as the basis for a longer discussion on the establishment of Science Shops in the event that the other modules are not being undertaken by the participants.

### *Key messages corresponding to the different slides*

#### **1. What is a Science Shop?**

When using a term “Science Shop” we are talking not about a “shop” in the traditional sense of the word, but about small organisations that carry out scientific research in a wide range of disciplines. Science Shops can be established as independent organisations in the form of non-governmental or community-based organisations or embedded within other organisations (universities or research institutions). Students (sometimes young researchers), guided by experienced researchers, work there on behalf of citizens and civil society.

A key element that distinguishes Science Shops from other knowledge transfer mechanisms is the fact that Science Shops respond to civil society's needs for expertise and knowledge. This way Science Shops combine research with service to society.

Representatives of NGOs or local communities or other types of civil society organisations (CSOs) can approach a Science Shop with a problem in which they feel some research would be helpful. The Science Shop staff together with the “client” organisation (CSO) will then translate the request into one or more research questions and find students or young researchers to work on the projects. Close contact with the “client” is very important throughout the implementation of the project.

Usually Science Shops work on research questions free of charge. The most important aim is to create fair and supportive partnerships with civil society organisations and work on a participatory basis.

The Living Knowledge Network explains that, as a mission statement, 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 public 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 transferable skills and knowledge of students, community representatives and researchers.

**More information:** Living Knowledge Network website, About Science Shops. Available at: <https://www.livingknowledge.org/science-shops/about-science-shops/>

## 2. General overview of Science Shops

Worldwide we can find many Science Shops that differ in size and work under different names and in different ways. But there are many things that they have in common: research projects are done based on concerns of civil society and these projects are implemented in close cooperation with civil society organisations and research institutes.

Although many of the first Science Shops were based at universities, they are now run by other types of organisations, e.g. NGOs and potentially even companies.

In Europe, Science Shops were established in four “waves” (based on History of Science Shops at [www.livingknowledge.org](http://www.livingknowledge.org); Mulder et al. 2001; Fischer, Leydesdorff, and Schophaus 2004)

### First wave

The first Science Shop was established in the Netherlands in the 1970s. Its establishment coincided with the emergence of project-based education in universities and an emerging environmental awareness in society. By the early 80s, all Dutch universities had one or more Science Shops, serving many scientific disciplines.

### Second wave

Since the founding of the first Science Shop in the Netherlands, the concept spread throughout Western Europe and Science Shops evolved in Germany, France, Denmark and Belgium. In the 1980s there were as many as 15 Science Shops in France. They were initiated by scientists who had learned about the Dutch Science Shops (however, none of the French ones are in existence now). In Germany and Austria Science Shops were also established based on the Dutch example, both as independent (NGO) Science Shops and as university-based Science Shops.

### Third wave

During the 1990s the concept of Science Shops received renewed interest by policy makers, especially by the European Commission. Several projects on Science Shops were funded by the EU and new Science Shops were established in Spain and the UK.

### Fourth wave

From 1995 new Science Shops begin to be established in the Middle and East-Europe, mostly modelled after the Dutch example.

Nowadays we can find active Science Shops or organisations with similar missions throughout the world in, for example, Israel, Romania, Lithuania, Latvia, Poland, Belgium, Denmark, Spain, United Kingdom, South Africa, USA, Canada, South Korea.



However, the European wide survey conducted by the SciShops project in December of 2017 revealed that most of the 642 respondents were not familiar with the Science Shop concept, as only a third (32 percent) had heard about Science Shops before the survey. Awareness was slightly higher among researchers than community organisations and policy makers. Among researchers, awareness of the Science Shop concept was higher in social sciences and humanities than in natural sciences and technology disciplines. There were also geographical differences, with awareness of the Science Shop concept higher in Western Europe compared to Eastern, Southern and Northern Europe.

Nevertheless, when asked if community members, who have no experience of working on Science Shop projects, would be interested in using the service of a Science Shop, 71 percent responded positively. No one answered that they would not be interested. However, 29 percent were not quite sure. Similarly, 66 percent of the surveyed researchers who had not been previously involved in Science Shops projects said that they would be interested in getting involved in this type of research. 28 percent did not know and only 6 percent said they would not be interested. Therefore, a lot of work needs to be done to popularize Science Shops, to use the potential interest of researchers and community members to work in Science Shop projects, and to strengthen ecosystem of Science Shops in EU.

**More information:**

- SciShops deliverable D2.3 “Stakeholder survey summary report” (Bergman et al. 2018)
- Mulder, H. A. J., Auf der Heyde, T., Goffer R., and C. Teodosiu (2001) Success and Failure in Starting Science Shops: Scipas Report No. 2, available at: [https://www.livingknowledge.org/fileadmin/Dateien-Living-Knowledge/Library/Project\\_reports/SCIPAS\\_report\\_nr.\\_2\\_2001.pdf](https://www.livingknowledge.org/fileadmin/Dateien-Living-Knowledge/Library/Project_reports/SCIPAS_report_nr._2_2001.pdf)
- Fischer, C., Leydesdorff, L. and M. Schophaus (2004) Science Shops in Europe: The Public as Stakeholder. *Science and Public Policy* 31(3), pp. 199-211.
- Living Knowledge Website, History, available at: <https://www.livingknowledge.org/science-shops/about-science-shops/history-of-science-shops/>

### 3. Science Shops and public engagement in science

The idea behind establishing Science Shops lies in the understanding that there is a huge **gap between traditional scientific research and the needs of communities**. Thus, Science Shops represent an approach to public engagement in science. The importance of scientists engaging with the public about scientific issues has been recognised for a long time and public engagement is now strongly encouraged in the research community. Its importance is acknowledged by scientists, funders and local government. However, many people still view public engagement as "outreach" i.e. science communication (more one way, or with limited interaction) rather than true mutual partnerships, which is what a Science Shop should be.

There are many different definitions and types of public engagement. When talking about public engagement in science, there are numerous ways in which the findings of researchers and students can be shared with the public. When describing public engagement with research, people use lots of different terms, such as outreach, collaborative research, open access, citizen science, participatory research, lifelong learning, social responsibility, community engagement

etc.. This shows us that public engagement is multi-faceted and can take many forms. **Ideally engagement should be a two-way process, involving interaction and listening**, with the goal of generating mutual benefit and meaningful incorporation of public input into the research process.

Why does public engagement matter? Engaging with the general public is of increasing strategic importance for research centres and universities, to strengthen relevance, responsiveness and accountability – and to build trust. Engagement with the public can enrich the work of research institutions with new ideas and challenges. Here are some arguments which show us the importance of public engagement:

**Answerability.** Research institutions need to be more open and transparent about what they are spending public money on – and why. Open dialogues with the general public about what researchers do and why they do it can help to build understanding and appreciation. Furthermore, it helps researchers to better understand society’s needs and fit their work to the expectations of wider society.

**Trust.** Public engagement, openness and being part of the debate on the social and ethical implications of research helps to build trust between researchers and society. Public engagement can be seen as a mind-set that acknowledges that the public have a genuine stake in the work of researchers.

**Relevance.** In times of media and open access it is extremely important to understand the necessity of sharing expertise. Without engagement, researchers risk appearing out of touch and increasingly irrelevant.

**Responsiveness.** Public engagement helps researchers respond to societal needs. This way relationships are built based on partnership and co-production.

For members of general society, engagement in science allows concerns to be raised that might otherwise be overlooked. Participation in public engagement also means the ability to contribute to shaping one’s environment, which might be related to political engagement or a need for self-expression.

**More information:**

- SciShops deliverable 4.2. “Practitioner roadmap and methodology toolkits” (Russo et al. 2018)
- The National Co-ordinating Centre for Public Engagement, Why does public engagement matter? Available at: <http://www.publicengagement.ac.uk/about-engagement/why-does-public-engagement-matter>

#### **4. Science Shops and RRI**

**Responsible Research and Innovation (RRI)** is a relatively new term that is used to describe a set of ideas and initiatives addressing socially responsible research that considers effects and potential impacts on society. RRI wants to mobilise actors from society, research, industry, policy and education to work together throughout the whole research process in order to better

align both the process and its outcomes with the values, needs and expectations of society. It builds capacities in citizens as active agents for shaping the future of society and developing solutions for grand societal challenges. Society's participation in developing research issues, in the research process itself, and in the debate about, and implementation of, its findings – these are important factors determining the success of the transformation towards a sustainable future.

In this context **Science Shops** can be seen as valuable actors that help to bridge the gap between research and society. Public participation in research through a Science Shop is based on transferring requests from community groups to research organisations. So we can say that Science Shops are a “best practice” example of RRI. Engaging different groups of stakeholders in dialogue and development processes reflects the idea of engagement and responsiveness. Research question development is based on anticipation with meaningful openness, reflection, adaptation and reflexivity. Free access to results and transparency help to build trust.

**More information:**

- Community-Based Research Process, [https://www.livingknowledge.org/fileadmin/Dateien-Living-Knowledge/Dokumente/Dateien/Toolbox/Campus\\_Engage\\_Infographic\\_of\\_CARL\\_Process\\_Map.pdf](https://www.livingknowledge.org/fileadmin/Dateien-Living-Knowledge/Dokumente/Dateien/Toolbox/Campus_Engage_Infographic_of_CARL_Process_Map.pdf)
- Public engagement in science: what it means, <http://www.fromthelabbench.com/from-the-lab-bench-science-blog/public-engagement-with-science-what-it-means>
- RRI tools for Science Shops, <https://www.scishops.eu/resources/rri-tools-for-science-shops/>
- RRI tools, <https://www.rri-tools.eu/research-community>

**5. How does a Science Shop work?**

Science Shops take the role of mediator between civil society organisations (and other stakeholders) and research institutions (university or independent research centre). Questions raised by members of civil society organisations are rephrased into scientific research topics to be addressed by a researcher or students under supervision of an experienced researcher. The research project leads to a report, designed to be of use to the client and wider society. Some Science Shops may also deal with other types of projects where research is only one part or includes only desktop research that informs the development of a product or a service, e.g. when students create a visual identity for a NPO or create a design for a public space. The Science Shop may also participate in further activities such as dissemination, communication and exploitation of project results.

**6. Benefits of Science Shops for various stakeholders**

When running a Science Shop, mutual benefit is a very important part. Science Shops should have a positive impact on the mother organisation, civil society and other stakeholders. Benefits might include learning, developing new skills, gaining new insights or ideas, developing better research, raising aspirations, or gaining inspiration.

**Science Shops meet the needs of:**

### Universities

- Problem-based learning
- Contribution to the development of university curricula and research
- PR and social responsibility (improved image)
- “Third mission”

### Students

- Enhanced learning
- New skills (e.g. joint problem definition, project-based working, communicating, planning) and employability
- Credits for courses

### Researchers

- Case materials for either future publications or further theoretical analysis
- Networking
- PR and social responsibility
- Science communication

### Society

- New product, service, organisation
- Informed and engaged public
- Empowerment
- Media/public attention

### Policy makers

- Better informed decisions
- Adequate funding for scientific research
- Appropriate regulations

## 7. Steps to establish a Science Shop – an overview

Establishing a Science Shop:

1. Survey the territory (get to know the policy context, identify relevant funding streams, etc.).
2. Build alliances (analyse your networks, identify relevant professional organisations and networking opportunities, develop relationships).
3. Inform (ensure that people understand the work and methods of a Science Shop, initiate dialogue with civil society, develop relationships with policy makers)

Generate research requests:

1. Introduce the Science Shop to your local community groups (e.g. NGOs, local/regional authorities, associations, patient groups and researchers).
2. Develop tools for collecting questions.
3. Promote the Science Shop through your local communication channels. Announce that there is an opportunity to submit questions and explain how to do it.

The staff of a Science Shop usually has to perform the following tasks:

1. Organise a first meeting with clients to understand the problem and collect relevant questions/problems. Some general criteria for accepting a request: there must be a scientific element to it; it needs to be of wider relevance to part of the general public; the client must be able to use the results (but there should be no commercial interest driving the request in order that the process is not seen as being skewed by a special interest); and the results have to be published with open access.
2. Do some preliminary research to see if the question has already been answered and if there is any societal relevance. Then reformulate the client's question into a research question.
3. Organise a second meeting with the client together with relevant experts and local stakeholders to discuss existing research results, to agree on the research question, to explore limitations and expectations of all stakeholders.
4. Find a suitable supervisor for the research project. The supervisor can be from a local university or research organisation. It is important not only to define the research questions but also find a suitable researcher willing to lead the research project.
5. Find students or researchers to work on the research project.
6. Maintain communication between the client and research group (organise follow up meetings to update on process, to plan for reporting and dissemination).
7. Prepare a presentation of the results both for stakeholders and to the wider public. It could be a presentation, interview, report, brochure, website, article, etc.
8. Make an inventory of follow-up research or research-themes. See if there is a possibility for scientific publication, interesting themes for further research.
9. Undertake a project evaluation with the student, supervisor and client.
10. Support the client in implementing results and recommendations.

**More information:** The Sparks Handbook. Available at:  
<http://sparksproject.eu/sites/default/files/Sparks%20Handbook.pdf>

## 8. Life cycle of Science Shops

Regarding the life cycle of Science Shops, a crucial finding of Science Shop case studies and a scenario analysis undertaken by the SciShops project (Garrison et al. 2018; Schroyens et al. 2018) is that their development is rarely a linear process. Science Shops that have existed for a long time have had their moments of growth and decline, which can lead to discontinuity or renewal of the Science Shop. These critical moments require an adequate reaction to the changing environments and conditions by rethinking the key aspects of a Science Shop's operation. During the different stages of its life cycle, a Science Shop's organisational model might change, different kinds of staff could be involved, the thematic scope may widen or narrow, different project types might be undertaken, and funding options might be expanded, secured or, alternatively, lost.

### Example

The Science Shop Languages at the University of Groningen, Netherlands (as it was called in the beginning) was set up in 1986 by the board of the Faculty of Arts at the University of Groningen. There were already a number of other Science Shops at this university at the time and the board

felt a need to have an open and democratic service for research in art disciplines as well. Due to the support of the Faculty Board, setting up the Science Shop was a straightforward process. The new Science Shop worked closely with another focusing on History & Languages on a variety of societal issues.

At the end of the 90s, the Science Shop Languages went through a difficult period and was not operational for a few years. These difficulties were partly due to the success of the Science Shop History that split from the Faculty and moved to a business-like model. This departure resulted in a lack of funding and human resources for the Science Shop Languages.

Nevertheless, in 1998 the Science Shop Languages started up again in a different environment. A new centre of expertise with staff employed to work on paid contract research was established and the Science Shop was restarted within the centre to work on connecting non-profit organisations to student research. Once again, the Science Shop became part of a bigger organisation and started flourishing.

In 2004, the Science Shop was renamed to Language, Culture and Communication to attract a greater breadth of work and to avoid confusion with the university's Language Centre. Today, the Science Shop is embedded in a new organisational unit, the Department of Communication, Career and Society, as the Centre of Expertise didn't survive the economic crisis in 2008.

**More information:** SciShops deliverable 2.2. "Existing RRI tools and successful participatory community-based research case studies report" (Garrison et al. 2018).

## 9. Key challenges and recommendations for the sustainability of Science Shops

Once established, Science Shops face some key challenges in their work:

- **Funding** is the greatest challenge facing Science Shops. Therefore, it is recommended to use diversification of funding sources not to become reliant on one source of funding as well as having some other types of activities generating resources that can be used between paid projects. It is also important to be proactive in searching for additional funding e.g. through participation in public engagement in science projects, initiating joint projects with local communities based on communities' requests for funding, offering paid consultancy services, lectures, etc. in order to increase the Science Shop budget.
- **Difficulties to get requests from civil society organisations**, especially in countries that have no tradition of engaging civil society in research activities. Thus, there is a lot of initial work needed to make community organisations aware of the Science Shop and to demonstrate the value of its services. Actively spreading the message about unpaid research possibilities through meetings, forums, mass media and intensive personal work may help to overcome this challenge.
- **Matching research requests with resources**. Some Science Shops struggle to find enough students or volunteers with the right knowledge and motivation to fulfil certain research requests. Also, it can be difficult to balance the civil society organisations' timescales for when they need the research with constraints such as academic terms (semesters). Balancing the expectations of the community organisations, who rely on the project results, with course work requirements can also be a challenge. In such case

skills such as project management and communication with clients, and flexibility are needed.

- **Working with a diverse range of stakeholders**, e.g. funders, policy makers, and grassroots communities also brings challenges due to their different requirements, approaches and ways of communicating. The main recommendation would be to strengthen the public engagement skills of Science Shop staff through training and practice.
- **Loss of key Science Shop staff**. Many Science Shops are driven by highly committed and enthusiastic individuals. The sustainability of small Science Shops can suffer if these key people leave or retire from the organisations. Therefore, it is important to develop expertise and experience within the science shop by motivating, training, and involving other staff in the management and implementation of Science Shop projects.

### Interactive exercise

#### “Possibilities of establishing a Science Shop at your institution”

**Aim:** The exercise encourages participants to think about establishing a Science Shop at their institution.

**Number of participants:** not limited; participants are asked to form groups.

**Duration:** 30 min. (10 min. of work in groups + 20 min. of presentations and discussion)

**Process:** Participants work in groups; group sizes can vary. Participants are encouraged to form groups representing similar institutional profile, e.g. university (if there are many participants from universities, they can further form groups according to the size or profile of the universities), NPO, company. If it is an international group, participants are encouraged to form groups based on the represented country. If there are participants from the same institution, they are encouraged to stay in the same group. For the first 10 minutes, participants are asked to discuss in their groups the possibilities of establishing a Science Shop at their institution: how likely it is, what challenges they would face, etc. After that, groups are asked to present their insights to other participants and have a broader discussion.

**Wrapping up:** The exercise is finished with a short summary given by the trainer emphasizing the diversity of possibilities and approaches to establishing a Science Shop. If needed, this can be an occasion to ask participants about what further information or training they would need to support them with their efforts to establish a Science Shop.



## References and further reading

### Literature

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