



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

Modules for Training of Science Shops Staff

Operational Models of Science Shops



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Objectives

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

- Gain awareness about the diversity of operational choices and models for Science Shops
- Recognise the key aspects that define different operational models of Science Shops and challenges related to them

In the area of skills and attitudes, they will:

- Be able to design their own model of Science Shop at their institutions
- Realise the importance of a flexible approach to run a Science Shop, taking into account the context and available resources
- Be able to anticipate challenges facing Science Shops

Session outline

Methodology	Material required	Duration Total: 3hr 45min
1. Welcome	Training agenda (printed)	5 min.
2. Ice breaking activity “10 things in common”		15 min.
2. Presentation Parts 1-9	- PowerPoint projector & large screen - Key messages - PowerPoint presentation - Handouts	90 min. (including Q&A and discussion sessions)
3. Interactive exercise “Develop the operational model of the Science Shop at your institution”	- Template for model description	60 min.
4. Presentation Parts 10-11	- PowerPoint projector & large screen - Key messages - PowerPoint presentation	25 min. (including Q&A)
5. Interactive exercise “R.I.P. Science Shop”		30 min.

Description of methodologies

Welcome

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

Personal introductions and ice breaking activity

If there is a need (depending on the training programme), the trainer can ask participants to present themselves.

For the ice breaker, divide the training participants into groups of four or five people by giving them numbers such that you can avoid people sitting next to each other ending up in the same group. Ask the newly formed groups to find out ten things that they have in common with every other person in the group. It can be both related to their work and the institutions they represent (as the topic is Science Shops, this will likely be the first ideas that come to mind), as well as personal things. One person from each group should take notes. Then ask one person from the group to read their group's list of things in common. The point is to let the participants know the composition of the whole group (in the interactive exercise, they will be asked to form groups of representatives from similar institutions), as well as to foster communication throughout the whole session.

PowerPoint presentation

Introduction

The aim of this presentation is to give the participants an overview of different operational options when running a Science Shop, as well as to start them thinking about the model of the Science Shop at their institution.

The presentation is centred on a brief introduction to a range of options and real-life examples of less common models. It is advisable to also provide a handout with an overview of the options according to the type of mother organisation, together with advantages and disadvantages of all options (provided in the Appendix). It is recommended to combine the presentations with discussion sessions; suggestions for the focus and questions of discussions will be presented later in the description of methodologies.

This presentation is based on the "Science Shops Scenarios Collection", prepared by the SciShops project partners (Schroyens et al., 2018), which should be consulted for background information and more extensive description of examples.

Key messages corresponding to the different slides

1. How to run a Science Shop?

Any type of organisation can have a Science Shop. Real life examples show that a Science Shop can work successfully at universities, at NGOs, they can be run as independent entities, and even by companies (as being investigated by the SciShops project).

Consequently, there is no single or dominant way to run a Science Shops and the Science Shop model is extremely flexible. How Science Shops operate and develop depends on their context, both institutional and the wider social, cultural, economic and political environment of the country, as well as the resources it has access to.

The next question is how to find the best way to model the Science Shop for your organisation. This entails understanding the options for different aspects that are important for the structure of a Science Shop and selecting the options that best suit the organisation. To do this, in turn, it is necessary to identify the “key aspects” of a Science Shop.

2. Key aspects

Key aspects are the essential organisational characteristics of a Science Shop. Options related to these characteristics reveal the possible operational choices for Science Shops. Different Science Shops choose different options according to their particular institutional and external context. Also, the operational choices may change throughout the life cycle of the Science Shop in response to certain institutional or societal developments.

3. Organisational models

Pop-up Science Shop. Pop-up Science Shops are non-permanent entities that may operate for a short period of time. They can be run by any type of organisation. Activity is limited to a small number of one-off events or interactions with civil society organisations, often run within a framework of a larger project. Pop-up Science Shops provide flexibility, allowing the Science Shop to pilot activities, or react to changes in demand from CSOs. They require less resources than a permanent Science Shop. However, it can be more difficult to establish a reputation and branding. One example is the pop-up Science Shop run at Malmö University (Sweden). In contrast to pop-up Science Shops, all other types of Science Shops discussed further can be regarded as “permanent” Science Shops.

Permanent Science Shops established within a university/NPO/business company. University-based Science Shops are referred to as the Dutch model, in reference to the very first Science

Shops established in the Netherlands in the 1970s. Science Shops based at universities and research institutes are often branded and marketed as an entity, but in fact the legal entity is their mother organisation, i.e. the university through which staff are employed and finances are handled. NPOs often carry out a wide range of activities, of which the Science Shop is just one. An example of a NPO-based Science Shop is the Science Shop at the Social Innovation Institute (Lithuania). Science Shops can also be run by a company – this model is investigated within the SciShops project.

Independent legal entity. Alternatively, a Science Shop may be an independent legal entity itself. There is a wide range of legal forms that a Science Shop could take, such as a non-profit association, charity, or foundation. The choice of the type of legal entity will partly depend on how legal entities are defined in the legal systems of the country in which the Science Shop is based and the country-specific options and rules. Examples are the Bonn Science Shop, or Interchange in Liverpool.

Another option for a Science Shop may be to operate as a for-profit entity, such as a limited company or as a social enterprise. Social enterprises are run on a for-profit basis, but have social objectives, and profits are primarily reinvested back into the business or community.

University-based Science Shop options

Centralised Science Shops. Centralised Science Shops mediate research across the whole of the university. They provide a contact point for civil society organisations, regardless of the subject or the issue to be investigated.

Faculty specific Science Shops. Some university-based Science Shops may be based within a faculty or department and therefore have a specific expertise that is the focus of the Science Shop projects which are undertaken; e.g. environmental sciences or social studies. An example is Groningen University, which has six Science Shops attached to different faculties of the university.

A Science Shop may start out as faculty-specific because it is where the initiator of the Science Shop is based. Once established, however, a faculty-specific Science Shop may expand to encompass other faculties or become a centralised Science Shop.

Region specific Science Shop. Regional Science Shops are less common. They operate as a collaboration between a number of partner organisations. The Science Shop acts as a central contact point for civil society organisations in a specific region and involves a number of universities, who carry out the research. The Science Shop will have a contact person at all of the participating universities and research projects are carried out by students at the participating universities. In this case, the Science Shop may be branded as an individual entity,

but staff and funding are managed separately by each of the universities (mother organisations). One example of this model is the Flemish network of Science Shops.

4. Funding

When setting up a Science Shop, one of the first and foremost aspects to consider are the potential sources of funding for the Science Shop's daily operations. In order to set up a long term sustainable organisation, the Science Shop needs a reliable and continuous source of funding. This is often the main challenge, both for early and more established Science Shops. The two main funding sources for Science Shops are dedicated funding from a mother organisation and project funding, but other options should also be discussed.

Mother organisation funding. This can be the primary source of funding for the Science Shop's activities in Science Shops based at any type of organisation. This type of funding is relatively common. Crucial in this regard is convincing the board of the mother organisation to allocate funding to the Science Shop (possible arguments were reviewed in Module 1). This funding does not need to be big, as small Science Shops require relatively little financial funds for their everyday activities if a lot of the work is done as a part of regular tasks undertaken by involved participants, e.g. students undertaking Science Shop projects as a part of their studies for credits, and teachers supervising thesis or projects as a part of their teaching obligations. In addition, NPOs often rely on volunteers for part of the work.

Project grants. Grants might be available at the EU, national or local levels. Project grants may be used to fund the operation of the Science Shop or individual research projects. In the past, numerous Science Shops have been established as part of European FP5, FP7 and Horizon 2020 projects, and there are examples of similar funding opportunities at a national level. These project grants are extremely useful for setting up a new Science Shop, as they give financial security for a set time and provide the opportunity to explore the possibility of a Science Shop in a particular environment, as well as learn from more experienced Science Shops.

Science Shops can also approach potential public or private partners for specific research projects. However, looking for funding for each project can also be very time-consuming. An important limitation, particularly for business-based Science Shops, is that they are not eligible for all financing schemes.

Social entrepreneurship and paid services. Science Shops generally try to offer their services free of charge, or at least at the lowest cost possible. However, offering paid services to clients who can afford this can provide an additional source of income. Consequently, these funds can be allocated to research projects for clients who have limited resources. The most notable example is Bonn Science Shop, which finances its activities from the revenue it generates through magazine subscription sales (magazines include career guidance and job vacancies for academics within the humanities and environmental sectors), paid services, funded research

and communication projects. Other examples are the Ibercivis Foundation (Spain), which is partly funded by providing citizen science consultancy services, or Groningen University Science Shops, which give paid external lectures. A common practice is to ask clients of Science Shops that can afford it to contribute partly to costs associated with Science Shop projects.

Other funding sources. Aside from the more common funding options, Science Shops have been creative in finding new sources of funding:

- Donations and membership fees. Wissenschaftsladen Potsdam is one example of an independent Science Shop that is, to a certain degree, funded by donations from the local community and membership fees.
- Private sponsorships. Some individuals or organisations might choose to support the Science Shop. However, in case of private sponsorship, the Science Shop should be careful not to compromise its independence.
- Some Science Shops in the UK have registered as charities. This makes them eligible for charitable grants, thereby opening new potential channels of funding. The challenge with this type of funding is that there are several requirements an organisation has to meet in order to be able to register as a charity. Interchange Liverpool is an example of a Science Shop that is registered as a charity.
- Similarly, some countries allow individuals and businesses to give a certain percentage of their taxes to an NPO or charity. In these instances, Science Shops have the option to supplement their funds by approaching individuals and companies for this type of donation. However, given that these mostly consist of very small amounts, finding sufficient sponsors to generate a sustainable source of funding is extremely time-consuming. This system applies in Lithuania for instance, where any Science Shop that is registered as an NPO is eligible for this type of funding.
- Some Science Shops have also managed to survive without any dedicated funding. They rely mainly on the commitment of volunteers. For instance, the European University Cyprus Science Shop receives no official funding. The Science Shop is fully integrated in the structure and everyday operations of the university, based on voluntary commitments of faculty members.
- Future Science Shops can also draw on innovative models such as crowdfunding or online collaborations that include the public (citizen science) and require no dedicated funding.

5. Infrastructure

The infrastructure aspect pertains to the physical location of the Science Shop and the availability of infrastructure and supplies.

Using infrastructure of the mother organisation. For Science Shops that are based at a university or other type of mother organisation, the obvious option is to locate the Science Shop there. In many cases, mother organisations can afford to share not only office space, but also other infrastructure and supplies with the Science Shop.

Renting or acquiring office space. Science Shops that function independently from a mother organisation might need to rent or acquire office space, although often it can be too expensive given the financial constraints that most Science Shops currently face.

Sharing with other organisations. One quite common and less expensive option than renting office space is to share office and supplies with other organisations. Independent Science Shops sometimes share a building with NPOs or charities, either in government owned buildings or buildings owned by one of the organisations. As an example, Wissenschaftsladen Potsdam (Germany) is located at the Freiland cultural centre, a publicly funded building that grants them free use of (some) materials and conference rooms.

Working from home offices. When sharing is not an option and the resources are limited, (small) Science Shops might also opt to operate from the private premises of one of the members of staff. Moreover, Science Shops can even choose not to operate from any centralised location. In this case, staff members can manage the Science Shop working from home offices. In both instances, these options boil down to a type of personal sponsorship and commitment of individual members. However, they can provide a viable (at least temporary) solution when resources are scarce. An example of this is the Institut für gesellschaftswissenschaftliche Forschung, Bildung & Information (FBI) in Austria, whose staff members work from home, using personal equipment.

Online platforms. Recently there are emerging examples of virtual “e-Science Shops” without any physical office space. One example is the Universitat Oberta de Catalunya (UOC) in Spain, a completely online university that is experimenting with the incorporation of an e-Science Shop (UOC Science Shop) in the general operations of the e-university.

6. Coordination staff

Science Shops can be organised in different ways, but all of them need some coordination and administration efforts: managing the overall operation of the Science Shop (finances etc.), coordination of projects and research staff, implementing communication and promotion tasks. Depending on the organisational model and the size of the Science Shop, the coordination team might consist of a single coordinator or a team.

Part-time mother organisation staff. One of the options for Science Shops is to assign the task of coordinating Science Shop activities to staff already employed at the mother organisation in other positions. This is particularly common at universities, but it is also an option for other

organisations. At universities, coordination roles at Science Shops are often performed by lecturers/researchers, who often do it as a part-time job alongside everyday lecturing and research work. For example, the coordinator of Science Shop Language, Culture and Communication at the University of Groningen (Netherlands) is a lecturer and researcher at the Faculty of Arts and does the coordination work of the Science Shop part-time.

Dedicated hired staff. Depending on the size of the Science Shop and the available financial resources, a Science Shop can also hire employees to coordinate Science Shop activities and perform other administrative tasks. They can be employed full-time or part-time, but the difference from the option above is that they do not have other positions at the mother organisation.

Students. Due to a lack of experience, students are not likely to be responsible for the main coordination and project management tasks at Science Shops. However, they might be engaged in communication and promotion activities or as assistants. They might work at Science Shops in paid assistant positions, in paid or unpaid internships, or might be rewarded with study credits. NPO and business-based Science Shops could also involve student interns in administrative or technical work. One example of a Science Shop that is run by students is Green Office Living Lab at KU Leuven (Belgium), which is managed by students with the help of more experienced staff at the university.

Volunteers. There are Science Shops that are entirely or partly run by volunteers, including management tasks. This is a more common option at newly established Science Shops, but older Science Shops can also involve volunteer work. For example, Wissenschaftsladen Potsdam e.V. (Germany) is a Science Shop run by volunteers.

7. Implementation staff

Project implementation staff is one of the key aspects relating to the establishment, running and expansion of Science Shops as the availability of staff affects how many and what types of projects the Science Shop will be able to undertake. An important message for those who are thinking of establishing a Science Shop is that the people who implement the projects do not have to be hired and paid staff – there are numerous other possibilities. Precisely because of the availability of ‘free’ staff, many Science Shops can offer free services to community organisations.

Students. At all types of Science Shops, research projects most typically are implemented by students. Their work with projects on behalf of community organisations may take several forms: (1) final BA/BSc or MA/MSc thesis; (2) coursework integrated into a course on research methods or a subject-related course; (3) an internship. The first two options are most typical at university-based Science Shops, while internships are a more common option for NPO-based Science Shops (potentially, also for SMEs) since they do not have their ‘own’ students and have

to invite them from outside. For example, the Social Innovation Institute Science Shop in Vilnius (Lithuania) relies on an informal collaboration with Vilnius University and other universities, whereby social science students undertake internships at SII. The Science Shop gets human resources for project implementation, while students get the possibility to acquire practical research skills and complete a credit-bearing internship.

When students are involved, they get credits for work undertaken on a Science Shop project, which is a strong motivational factor. At universities, students can also be employed in paid research assistant positions. Finally, Science Shops could involve students on a voluntary basis, although this is not common practice. Being able to engage students in projects is a general advantage for many Science Shops – without this ‘free’ and abundant resource, the operation of many Science Shops would be impossible.

Lecturers/researchers. University lecturers or researchers typically act as supervisors of Science Shop projects that are carried out by students. In many cases, university lecturers do this without extra payment as student supervision is a part of their job. However, such projects may involve extra work, time for meetings etc. Hence some universities might opt to allocate extra remuneration for lecturers taking part in Science Shop projects. Some Science Shop projects can be entirely implemented by researchers with experience instead of students, particularly in the case of more demanding projects, although this is less common.

NPO/business company’s employees. At NPO or business-based Science Shops, it is employees that not only coordinate the projects, but also supervise the research projects if they are implemented by intern students, or implement the projects themselves. This is the case at Bonn Science Shop (Germany), where all of the work (except in cooperation projects, where joint work is undertaken with other project partners) is carried out by its members of staff. Many of them have expertise in research relating to a range of fields focused around environmental, education and social sciences.

Volunteers. It is not uncommon for Science Shops to be established by volunteers or rely heavily on volunteering work at the beginning of their existence. However, a small number of Science Shops continue to be run by volunteers. All Science Shops, at all stages of maturity, may rely on volunteer researchers and students from universities and other research institutions. An example is the Ibercivis Foundation in Spain, where many of the researchers that are involved in the projects work as volunteers or are employed at the organisations they collaborate with. The Foundation also has a number of other volunteers, including teachers, and other active supporters, who are heavily engaged in their work.

Other options. There are several other, but less frequently used, options for the implementation of Science Shop projects. In some projects, a community organisation’s (client’s) staff may take part in the project implementation, e.g. by taking part in the research design and helping to collect data. Another example is projects that are based (partly or entirely)

on citizen science, when lay people from the wider society are invited to contribute to the project with data collection or analysis, thus becoming involved in the project implementation. Also, some Science Shop projects, particularly larger ones, may rely on an advisory committee that supplements the project supervision role. Such a committee might include representatives of clients, local authorities, relevant citizen or professional associations, and other stakeholders.

8. Project types

In serving communities and civil society organisations, Science Shops can perform a wide variety of project activities. While research is the most common type of Science Shop project, particularly at university-based Science Shops, other types are possible too. Which of them dominates depends on the organisational model of the Science Shop and on the particular focus of each individual Science Shop.

All types of project activities are usually very interrelated. The only activity that can be seen as being a separate self-sufficient activity is research, in the case where projects are entirely research-based. However, the very nature of community-based research requires consultation and engagement with local communities, so even research-based Science Shops are not separable from broader activities. Concrete projects run by Science Shops therefore inevitably involve a combination of different activities.

Research projects. Research is the most common type of activity undertaken by Science Shops. With research projects, Science Shops respond to the research needs of community organisations. Research projects involve formulating the research question, research design, data collection, data analysis, interpretation and potential recommendations.

Research is the main activity of Science Shops at universities because the aim of university-based Science Shops is related to the needs of student learning and the requirements of coursework and theses. In NPO and business-based Science Shops, research also can be an important part of activity, but it depends on the expertise they have. If an organisation does not work in research, its Science Shop projects might be dominated by other types of activities, such as generating community involvement or practical engagement.

Services/products. Science Shop activities can be focused on providing other types of contribution in terms of services, consultations, products etc. If research projects end with a research report and perhaps recommendations, projects based around the development of services/products end with a more tangible or practical result like technical products, feasibility studies, development of a website, promotional materials and campaigns, videos and visual identities for community organisations. One example is the project implemented by the Bonn Science Shop, “Green instead of Gray – Industrial Parks in Transition”, whose aim was the greening and long-term sustainable development of industrial parks. Areas investigated included the design of parking spaces, the use of building materials and planting of vegetation.

These types of projects might be very much applicable to NPOs and business-based Science Shops that do not have research expertise, since they could provide free services to community organisations in their main area of work, e.g. IT services (creating a website, a database) or consultations (in law, marketing, communication, etc.).

Stakeholder debates. Science Shops projects can involve other civil society engagement activities such as round table discussions, focus groups, world cafés, which are aimed at finding solutions to societal, environmental or other problems. These public engagement activities can involve different kinds of stakeholders: NPOs, communities, higher education institutions, decision makers, etc. As an example, the Science Shop Environmental Social Science Research Group (Hungary) ran a project on “Forgotten citizens of Europe: Participatory Action Research for Local Human Rights” where the aim was to explore local human rights problems and experiences of Roma communities in Southern Hungary. Besides research activities, researchers and students organised discussion groups with Roma communities and local experts, and built a network among local stakeholders, professionals, activists, schools, and the municipality. As a result, the main problems for Roma people were identified and one key solution to the complex problem was generated.

Educational activities. Education is another type of project activity conducted by Science Shops. Some Science Shops focus on educational programmes combined with public engagement activities. These are carried out with and for the community with the aim of transformative change. Educational activities can be provided as classroom activities (experimental workshops, courses and seminars) and/or educational resources available online (e.g. videos, virtual experiments, online serious games, games to engage young people in a dialogue, experiment protocols, teaching guides). For example, the Living Lab for Health (Spain) carries out projects for health promotion and transformative change of the R&I system that are co-developed with different stakeholders, including the scientific and education communities, policy makers, business and industry, civil society organisations and citizens in general. These projects include educational programmes and participatory programmes related to research and innovation (R&I) and governance, and are carried out with and for the community.

9. Thematic scope

Science Shops can cover a variety of scientific disciplines. It is important to note that a Science Shop does not have to cover the whole range of disciplines – there are plenty examples of Science Shops that operate in one particular field, e.g. social research, environmental issues, health issues, etc. The focus of a Science Shop should be based on access to expertise in a particular discipline as well as potential demand. These options can be applicable to all types of Science Shops. However, because NPO and business-based Science Shops tend to be smaller than university-based Science Shops, it is more likely that the former have specialised Science Shops. The decision to choose a narrow or wide thematic scope depends on the supply of

knowledge and expertise that is available within the organisation and/or whether it has access to external human resources and expertise.

Specialised Science Shops. There are many specialised Science Shops which do research in one particular thematic area. In the case of universities, this is typical for faculty-specific Science Shops. In the case of NPO and business-based Science Shops, it is usually related to the particular expertise of the NPO or SME. Examples of specialised university-based Science Shops include Science Shop Language, Culture and Communication, which is part of the Faculty of Arts, University of Groningen, Netherlands; or InterMEDIU Bucharest at the University Politehnica of Bucharest (Romania), which has a focus on environmental issues. Examples of NPO-based specialised Science Shops include Living Lab for Health in Spain that carries out project and programmes for health promotion and transformative change of the R&I system or Wissenschaftsladen Potsdam e.V. (Germany), which is active in applied research in natural sciences, engineering, and science with and for society.

Multidisciplinary Science Shops. There are also Science Shops that have a wide thematic focus. It is more typical to find such Science Shops at universities that have centralised Science Shops, although there are also examples of more broadly focused NPO-based Science Shops. Examples of multidisciplinary university-based Science Shops are the European University Cyprus (EUC) Science Shop (Cyprus) or UTS Shopfront Community Program at the University of Technology Sydney (Australia). An example of a multidisciplinary NPO-based Science Shop is Bonn Science Shop, which works on a broader number of topics.

10. Interdependencies of aspects

These different key aspects of Science Shops are interrelated and the choice of, or change to, one aspect often affects a number of other aspects. For example, funding affects many of the discussed aspects, like staff, infrastructure, and other. The organisation model (type of mother organisation) affects the availability of infrastructure options and staff for coordination and project implementation. The availability of expertise (staff) will affect the thematic scope and types of projects, and so on.

11. Key aspects as opportunities and challenges

The key aspects discussed earlier can work as opportunities and challenges in the course of a Science Shop's lifetime. First, they can be regarded as the main internal factors that define the sustainability of a Science Shop. For example, a challenge might be securing funding, finding (enough) people to implement the projects, finding the right infrastructure, etc. Second, the key aspects might influence changes in the operation of a Science Shop, both related to the growth or decline of a Science Shop. For example, receiving project funding provides an opportunity for growth, while the end of project funding presents a challenge; a new person joining may bring in new competencies and opportunities for new projects, while the loss of a key person presents a

challenge; similar examples can be provided for all of the aspects that have been discussed. Thus, Science Shops have to reflect on the possible challenges as well as opportunities that they might face in the future, and the list of key aspects presents a useful framework to analyse or plan future developments.

Discussion on the operational models of Science Shops

There should be a full discussion of the operational options for Science Shops. The point is to make the participants reflect on what could work in their institutions, but also to think beyond the options listed in the presentation. The discussion can be initiated after presenting each of the key aspects, or after short sessions of presentation, encompassing several of the interrelated key aspects: (1) Organisational model, funding and infrastructure; (2) Coordination and implementation staff; (3) Project types and thematic scope. Some of the key aspects might be related to greater challenges and need longer discussion, e.g. funding, while some others can be less problematic.

To initiate the discussion, participants are asked first to think for a few moments about the key aspects that have been presented and options for the potential Science Shop at their institutions. Then, a discussion can start. Some suggested questions for discussion:

- What options are not clear and perhaps need clarifying or examples?
- What other options do you see for these aspects, when thinking about a Science Shop at your institution?
- Are there options that you are already exploring?
- Which of the presented aspects and/or options do you see as particularly challenging?
- What are the possible solutions (perhaps other participants could suggest ideas)?

Interactive exercises

Interactive exercise 1. “Develop the operational model of the Science Shop at your institution”

Aim: The exercise helps to envision the model of a Science Shop at the participant’s institution.

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

Duration: 60 min. (30 min. of work in groups + 30 min. of presentations and discussion)

Process: Participants work in groups. Participants are encouraged to form groups representing similar institutional profiles, 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, business company. If there are participants from the same institution, they are encouraged to stay in the same group. For the first 10 min., participants are asked to imagine the operational model of a Science Shop at their institution, by indicating options they would choose (or come up with other options) under each of the aspects (they can use the provided template, presented in the Appendix). Then they have to discuss the similarities and differences between the models that they have built and the reasons (context conditions) that affect the similarities and differences. After the group work, groups are asked to present their findings (a summary of discussion and most interesting insights) to other participants.

Wrapping up: The exercise is finished by a short summary by the instructor emphasizing the diversity of options and models, and the need to adapt to the individual context when running a Science Shop.

Interactive exercise 2. “R.I.P. Science Shop”¹

Aim: The exercise helps to see different reasons why Science Shops fail.

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

Duration: 30 min. (15 minutes of work in groups + 15 minutes discussion)

Process: Participants work in groups. Each group gets a big sheet of paper, pens and have to draw a gravestone with inscription “R.I.P. Here lies a Science Shop which...”. Then they have to think of as many as possible reasons why a Science Shop project can fail and write these reasons on the gravestone.

Wrapping up: Groups are asked to present their drawings and discuss why Science Shops fail.

¹ The format of the exercise was used in the final SPARKS project’s forum hold in Brussels, May 3–4, 2018.

References and further reading

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