

## Handout 2. Advantages and disadvantages of the different operational choices for Science Shops

### 1. Advantages and disadvantages of the different organisational models

	Advantages	Disadvantages
<b>Pop up / pilot</b>	<ul style="list-style-type: none"> <li>● Flexible, don't require huge resources (staff or funding)</li> <li>● Can be used to pilot activity before committing resources</li> </ul>	<ul style="list-style-type: none"> <li>● More difficult to establish reputation and branding</li> </ul>
<b>University: Centralised</b>	<ul style="list-style-type: none"> <li>● Cross-university engagement</li> <li>● Able to respond to wide range of research needs and topics</li> <li>● Often more embedded in university's strategy &amp; funding</li> </ul>	<ul style="list-style-type: none"> <li>● Can require dedicated funding and coordination</li> <li>● Reliant on cross-university support</li> </ul>
<b>University: Faculty specific</b>	<ul style="list-style-type: none"> <li>● Closer to staff and students undertaking the research</li> <li>● Easier to coordinate</li> </ul>	<ul style="list-style-type: none"> <li>● More difficult for CSOs to approach</li> <li>● Offers limited research scope to CSOs (if no other Science Shops within the university)</li> </ul>
<b>University: Regional</b>	<ul style="list-style-type: none"> <li>● Provides a central regional contact point for CSOs</li> <li>● Shared knowledge and networking opportunities</li> </ul>	<ul style="list-style-type: none"> <li>● Requires an additional level of coordination</li> </ul>

<b>Based within NPO / SME</b>	<ul style="list-style-type: none"> <li>● Access to support and expertise within the mother organisation (e.g. financial, marketing &amp; communications)</li> <li>● Can utilise mother organisation's visibility and reputation for branding and marketing</li> </ul>	<ul style="list-style-type: none"> <li>● May be limited in capacity due to other demands (how many projects can be done)</li> </ul>
<b>Independent legal entity</b>	<ul style="list-style-type: none"> <li>● Freedom and flexibility (with regard to how it is run, funded, branding, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>● Funding insecurity as fully dependent on external funding</li> <li>● No access to additional support &amp; resources from a mother organisation</li> <li>● Financial report and accounting responsibilities and other legal duties</li> </ul>

## 2. Advantages and disadvantages of the different funding options

Option	Advantages	Disadvantages
<b>Mother organisation</b>	<ul style="list-style-type: none"> <li>● Primary funding source</li> <li>● Potentially sustainable</li> <li>● Stable</li> </ul>	<ul style="list-style-type: none"> <li>● Dependence on mother organisation</li> <li>● Reliant on budgetary considerations of the organisation</li> </ul>
<b>Project grants</b>	<ul style="list-style-type: none"> <li>● Often full funding of Science Shop activities and/or research projects</li> <li>● Financial security for set periods of time</li> </ul>	<ul style="list-style-type: none"> <li>● Limited in time</li> <li>● Application process can be time-intensive</li> <li>● Competition for limited funding sources</li> </ul>
<b>Social entrepreneurship</b>	<ul style="list-style-type: none"> <li>● Sustainable</li> <li>● Independence of external funding</li> <li>● Expanding client base</li> </ul>	<ul style="list-style-type: none"> <li>● Risk of bias in allocation of time and resources</li> <li>● Potential erosion of social function of Science Shop</li> </ul>

### 3. Advantages and disadvantages of the different infrastructure options

Option	Advantages	Disadvantages
<b>Mother organisation</b>	<ul style="list-style-type: none"> <li>• Usually elaborate infrastructure available</li> <li>• Very common</li> </ul>	<ul style="list-style-type: none"> <li>• Dependence on mother organisation</li> <li>• Reliant on budgetary considerations of the organisation and availability of spaces</li> </ul>
<b>Private office space/building</b>	<ul style="list-style-type: none"> <li>• Independence</li> <li>• Security</li> <li>• Sustainable</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive</li> </ul>
<b>Sharing office space</b>	<ul style="list-style-type: none"> <li>• Reduction of operating costs of the Science Shop</li> </ul>	<ul style="list-style-type: none"> <li>• Not always an option</li> <li>• Dependence on external organisation/ government decisions</li> </ul>
<b>Home offices</b>	<ul style="list-style-type: none"> <li>• Significant reduction of operating costs of the Science Shop</li> <li>• Flexibility</li> </ul>	<ul style="list-style-type: none"> <li>• Dependent on commitment of individual staff members</li> </ul>
<b>Virtual Science Shop</b>	<ul style="list-style-type: none"> <li>• Significant reduction of operating costs of the Science Shop</li> <li>• Accessibility</li> <li>• Flexibility</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of personal contact (but online modes of collaboration and engagement may substitute for these in some cases)</li> </ul>

#### 4. Advantages and disadvantages of the different coordination staff options

Option	Advantages	Disadvantages
<b>Part-time mother organisation staff</b>	<ul style="list-style-type: none"> <li>● Inside knowledge on the organisation</li> <li>● Good knowledge of the research process (if lecturers/researchers)</li> <li>● Lower costs (might be employed for a small part of their time or work on voluntary basis)</li> </ul>	<ul style="list-style-type: none"> <li>● Potential difficulties to allocate time and combine with other positions</li> </ul>
<b>Hired staff</b>	<ul style="list-style-type: none"> <li>● High quality due to possibility to hire specialised professionals</li> <li>● Undivided attention to Science Shop tasks (particularly if full-time)</li> </ul>	<ul style="list-style-type: none"> <li>● Higher costs, not available for all Science Shops</li> </ul>
<b>Students</b>	<ul style="list-style-type: none"> <li>● Lower costs</li> <li>● High communication and promoting potential</li> </ul>	<ul style="list-style-type: none"> <li>● Possible lack of experience</li> <li>● High turnover</li> <li>● May be difficult to fit into timescale of work</li> </ul>
<b>Volunteers</b>	<ul style="list-style-type: none"> <li>● Free</li> <li>● Natural motivation</li> </ul>	<ul style="list-style-type: none"> <li>● Can invest only limited time</li> <li>● Potentially high turnover (compared to permanent staff)</li> </ul>

### 5. Advantages and disadvantages of the different implementation staff options

Option	Advantages	Disadvantages
Students	<ul style="list-style-type: none"> <li>• Free (no direct costs)</li> <li>• Abundant</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of lower quality or drop out</li> <li>• Need supervising</li> </ul>
Teachers/researchers, Science Shop staff	<ul style="list-style-type: none"> <li>• High quality</li> <li>• Can work independently</li> </ul>	<ul style="list-style-type: none"> <li>• Higher costs (compared to students or volunteers)</li> </ul>
Advisory committee	<ul style="list-style-type: none"> <li>• Direct involvement of stakeholders</li> <li>• Help from more sources in project implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Potential differences in opinion and need to compromise</li> </ul>
Volunteers	<ul style="list-style-type: none"> <li>• Free</li> <li>• Natural motivation</li> </ul>	<ul style="list-style-type: none"> <li>• Can invest only limited time</li> <li>• Potentially high turnover (compared to permanent staff)</li> </ul>
Client's staff	<ul style="list-style-type: none"> <li>• 'Inside' knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• Need training in research methods</li> </ul>
Citizens (e.g. in citizen science projects)	<ul style="list-style-type: none"> <li>• Free</li> <li>• Large scale potential</li> </ul>	<ul style="list-style-type: none"> <li>• Needs extra efforts and possibly funding to mobilise</li> <li>• Might need more guidance</li> <li>• Risks related to data quality</li> </ul>

## 6. Advantages and disadvantages of the different project type options

Type of project activity	Advantages	Disadvantages
<b>Research</b>	<ul style="list-style-type: none"> <li>● Possibility to train students in research implementation, data analysis and reporting</li> <li>● Possibility to use knowledge expertise of scientific institution</li> </ul>	<ul style="list-style-type: none"> <li>● NPOs and SMEs can lack scientific personnel and students for implementation of research on their own without outside help</li> </ul>
<b>Stakeholder debates</b>	<ul style="list-style-type: none"> <li>● Can be used by NPOs and SMEs that lack expertise in research and available human resources</li> <li>● Easier to involve other stakeholders from civil society and decision makers</li> </ul>	<ul style="list-style-type: none"> <li>● Without research evidence, these debates can lack scientific arguments</li> <li>● Universities can be less keen to use stakeholder debates as the main activity of students undertaking scientific projects for course papers, BA, MA thesis, and require expert facilitation, etc.</li> </ul>
<b>Services/products</b>	<ul style="list-style-type: none"> <li>● Responds to very practical demands of civil society organisations (IT products, design, etc.)</li> <li>● This is an option for NPO and business based Science Shops that have limited expertise in research and available human resources</li> </ul>	<ul style="list-style-type: none"> <li>● Restricted scientific usability of this activity for universities</li> </ul>

<b>Education</b>	<ul style="list-style-type: none"><li>• Increase public knowledge and awareness about the latest scientific developments</li></ul>	<ul style="list-style-type: none"><li>• Public is only passively involved</li></ul>
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## 7. Advantages and disadvantages of the different thematic scope options

Thematic scope	Advantages	Disadvantages
<b>Specialised</b>	<ul style="list-style-type: none"> <li>● Possibility to concentrate knowledge resources</li> <li>● Easier to position as a Science Shop with a particular focus</li> </ul>	<ul style="list-style-type: none"> <li>● Restricted range of societal requests or lack of requests, especially if Science Shop orients itself to work on a very marginal topic</li> </ul>
<b>Multidisciplinary</b>	<ul style="list-style-type: none"> <li>● Can serve a broader range of societal requests</li> </ul>	<ul style="list-style-type: none"> <li>● More difficult to ensure the availability of experts and students in different topics</li> </ul>