

“Handbook” for applicants to the call for proposals:

“Science Shops: research for local civil society”

(Call: “Science and Society-20”)

1. Definition

“Science shops” are not shops in the traditional sense of the word. They are small entities that carry out scientific and technological research across a wide range of disciplines. Their services are usually provided at reduced cost or on occasion at no charge at all and aim to address directly the scientific concerns of Europe’s local communities by providing them independent scientific advice and research results. The fact that “Science Shops” exist to respond directly to the needs of our local communities distinguishes them from other knowledge transfer mechanisms. They are often linked to universities or other types of educational institutions and provide students and early stage researchers with the opportunity to work on science and technology projects of direct local concern and in the process assist them to gain practical experience and academic credits.

“Science Shops” is a generic term that emerged largely from the pioneering work that was conducted particularly in the Netherlands in the early 1970s, when a group of chemistry students decided to put themselves together to help non-profit clients solve scientific problems. Aided by university staff, they aimed to increase the influence of civil society within academic circles and to forge better links between citizens, local interest groups as well as scientists and engineers.

“Science Shops” are known in different countries by a variety of names. The call for proposals addressed in this document covers all these entities providing services as set out in the above definition.

2. “Science Shops” a European investment in people

While the main objective of the “Science Shops” is helping scientists and engineers to connect more directly to the everyday scientific needs and concerns of society, they can also play an important role in developing the research skills of students and researchers. Europe is in great need of researchers. Well trained researchers are a priority if the EU is

going to meet its ambitious goals that the EU's Heads of State and Government committed themselves first at Lisbon, in 2000, to make "Europe the most dynamic and competitive knowledge economy in the world by 2010 and then later in Barcelona where they committed themselves to raising the investment in research in the EU to an average of 3 % of the member states' GDP.

The Commission has estimated that the fulfilment of the 3% objective alone will require a further 700,000 researchers, in addition to the resources needed to replace the rapidly ageing European research workforce. Needless to say, in this context, the importance of attracting the best and most motivated young people into the research careers.

"Science Shops" contribute to this objective by providing students and early stage researchers with a source of practical research opportunities which can be recognised by academic credits. They thus benefit universities by contributing to their students' hands-on learning experiences and in the process do much to improve the development of their communicative, social, and managerial skills. And, moreover, provide their students with the opportunity to conduct their research work in a multidisciplinary setting.

3. The EU as an investor in the training of researchers

"Science Shops" are complementary to other Community actions that favour the development of researchers' careers through both financial and policy orientated means:

- EU funding is provided to help the training, mobility and career development of researchers (through the so-called 'Marie Curie Actions')
- The overall environment for researchers in Europe is being improved by enhancing mobility and removing obstacles to mobility (through the EU's 'Mobility Strategy')
- The career development of researchers is being fostered so as to enhance the EU's attractiveness in attracting research talent from all over the world. A strategy that includes public awareness measures for the researchers careers, as well as the European Researcher Charter for Researchers and a Code of Conduct for the Recruitment of Researchers

For further information please consult: <http://www.cordis.lu/science-society/>

4. What kinds of projects are covered?

“Science Shops” stand at the junction where science meets society and deal with practical problems, for example, investigating pollution caused by a local factory, finding technological solutions to help disabled people lead independent lives, or analysing river pollution or drinking water quality, etc.

Recent examples of issues and actions addressed by “Science Shops” include:

- *Sustainable management of household waste from villages, Bacau, Romania*
- *An investigation into the social isolation of elderly men, Belfast, United Kingdom*
- *The re-use of old computers, Berlin, Germany*
- *Better waste management in urban areas, Copenhagen, Denmark*
- *The development of a computer game for children with speech disorders, Lynby, Denmark*
- *Adapting local environmental plans to needs of the city dwellers, Seville, Spain*
- *The problems confronting single mothers studying at universities. Vienna, Austria*
- *Improving water quality in recreational areas, Wageningen, The Netherlands*

All science and technology issues such as environment, IT, engineering but also social, psychological, health, legal and artistic issues, as well as business and local history concerns are covered by this call. Moreover, in order to reflect the way that research is conducted at project level, **trans-disciplinary approaches** are encouraged. Proposals are expected to address (i) the scientific analysis of a problem; (ii) the development of a solution to a problem, or (iii) the enhancement of knowledge around a topic of civil society concern.

Networking amongst different universities and “Science Shops” at the European level should be exploited to **optimize the use of available research results** and expertise.

To enhance the development throughout Europe, projects with a **transnational dimension** are particularly encouraged. This may involve sharing best practices or expertise in addressing similar problems in different regions of Europe. Provisions for the short-term mobility of students and early stage researchers would be seen as an asset.

Furthermore, to help developing science shops throughout Europe, the **participation in projects of countries and regions where “Science Shops” are less developed** is encouraged.

Given that the primary purpose of “Science Shops” is to provide accurate scientific advice in response to public concerns, the **dissemination of the results** of the project is considered to be of particular importance and accordingly will be carefully assessed in

the evaluation. The results of the projects are expected to be explained and presented suitably for the use of civil society.

5. The European Dimension

Over the last thirty years “Science Shops” have taken root in over a dozen countries: Austria, Belgium, Denmark, France, Germany, the Netherlands, Romania, Sweden and the United Kingdom. Canada, Israel and the United States of America have developed similar structures.

The European Commission in recent years has been encouraging the development of “Science Shops” as a tool to help science better serve society’s needs while also providing undergraduate students and early stage researchers with the opportunity to engage in practical hands-on research that ultimately contributes to their curriculum development. “Science Shop” projects financed by the Community until now have involved studies (analysing the science shops model and the interacting of “Science Shops,” universities and civil society organisations), the networking of existing science shops and the training and mentoring of new “Science Shops” (see details of Community funded projects in Annex 2).

Given the very positive results of these first actions, it is now considered beneficial to extend Community support further to see how the “Science Shop” concept might take root right across the 25 EU Member States and countries associated to the framework programme; a process that the Commission hopes to be able to support further particularly under the auspices of the 7th Framework Programme (2007-2013).

Through this call, “Science Shops” or similar settings may be financed to perform research for the benefit of local civil society organisations which don’t have the facilities, means or expertise to carry out the required research themselves.

Through this action the Commission expects to:

- improve the functioning of “Science Shops” and their networks;
- develop further the links between universities and other research organisations and civil society;
- create valuable practical learning opportunities for the students involved and thus enhance the development of students’ and early stage researchers’ curricula.

6. Who can participate in the “Science Shops” activities?

The fundamental guiding principle of “Science Shops” is that they provide a service to “clients,” in particular from civil society and the local community, on the basis that the project does not generate directly a financial profit.

Services are typically provided by universities, other higher education organisations or public sector institutions. However, any other organisations carrying out research work can also participate or be associated to the “Science Shops” activities, including SMEs and other private sector organisations. Indeed, given the important role that private companies play in the local community, the acquisition of practical experience within an entrepreneurial setting is widely considered to be an invaluable asset in the training of young and future researchers.

7. What costs can be funded?

Community support is intended to contribute to the costs of **research projects** carried out by “Science Shops” or similar organisations.

In principle all such costs are eligible. However, taking into account that “Science Shops” or similar bodies usually award credits to the students and early stage researchers involved in their projects, payments to students will not be covered. In addition, the Community contribution may not be used for the administrative costs or salaries of employees connected with the day to day running of the shops. Specific costs related to the establishment of new science shops will not be covered by this contribution either.

A practical example of a possible proposal

An IT tool for the monitoring and design of urban development initiatives.

Local authorities and citizen groups living in an area that is scheduled for major urban renewal want to develop an IT tool that can facilitate the involvement of local residents in the future design plans for their area.

The project has a trans-disciplinary approach, as aspects that relate to IT, environmental studies, architecture, law and sociology need to be integrated. The scheme also has a transnational dimension due to the involvement of departments based in different universities that benefit from the use of the same IT tool. To facilitate the research students will move for short periods from one university to the other to work on the project on a multidisciplinary basis.

The Community's contribution is to cover the costs of the development of the tool, the related research in the required disciplines, the mobility costs involved in the training of the students and researchers involved, as well as coordination costs.

Some of the participants come from a region where the "Science Shop" concept is not firmly established. Their participation will lead to spreading of the "Science Shop" concept and to the establishment of new shops.

8. Type of support ("instruments")

Community funding will be provided to fund **Specific Support Actions (SSA)** and **Coordination Actions (CA)**.

An SSA can be used to provide funding to support the work of individual establishments as well as consortia of different "Science Shops." As mentioned above, proposed projects are expected to have several partners. Though given the limited budget, and the fact that "Science Shops" are fundamentally about tackling local issues, it is not expected that consortia will be large (not more than e.g. 3-5 partners).

SSA is expected to be the main instrument that will be used in replying to this call. However, should the idea developed in the project have a coordination nature involving a larger number of participants then a CA would best suit the needs of the consortium. In such a case the project will have to pay particular attention to explaining carefully the benefits of a large consortium, the impact on the participants as well as the functioning of the project's co-ordination methods. However, the use of this instrument would be exceptional.

The basis of the evaluation of both actions is broadly the same except that in the case of a Coordination Action specific consideration is given to the overall quality of the coordination.

Proposals under the present call will be assessed according to the criteria given in Annex I.

For more details

http://europa.eu.int/comm/research/science-society/pdf/science_shop_en.p

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Annex I

The evaluation criteria

	Standard evaluation criteria	Understanding the criteria for this call
Relevance	The extent to which the proposed project addressed the objectives of the work programme/call/specific programme/ERA as appropriate	<ul style="list-style-type: none"> - Is the problem addressed in the proposal based on the needs of the local civil society? - Does the project bring together a research organisation with the civil society in order to share knowledge and meet the scientific advice needs of the community? - Does the project create problem-based learning opportunities for students and/or early stage researchers?
Quality of the supported action (only SSA)	<ol style="list-style-type: none"> 1. The extent to which the proposed objectives are sound and the proposed approach, methodology and work plan are sufficiently high quality for achieving the objectives (only SSA) 2. The extent to which the applicants represent a high level of competence in terms of professional qualifications and/or experience(only SSA) 3. The extent to which the proposed activities are innovative and original (if applicable) (only SSA) 	<ul style="list-style-type: none"> - Are the methodology, work plan and proposed approach appropriate with regard to the specific objectives of the project (problem-based, concrete and local?) - Does the project sufficiently take into account available research results for solving the specific problem? - Is the proposed approach in any way transdisciplinary (if applicable)? - Does the project appropriately take care of the training components for the students/early stage researchers involved and/or does it create exchange opportunities? - Are the available research results of the different participants going to be widely used and integrated? Are the tasks well distributed amongst the consortium accordingly to the specific competences of the various partners? - Is the number and composition of the participants appropriate to the objectives of the project?
Quality of the coordination (only CA)	<ol style="list-style-type: none"> 1. The extent to which the research actions/programmes to be coordinated are of demonstrably high quality (only CA) 2. The extent to which the coordination mechanisms proposed are sufficiently robust for ensuring the goals of the action (only CA) 	

Potential impact	<ol style="list-style-type: none"> 1. The extent to which the impact of the proposed work can only be achieved if carried out at European level 2. The extent to which the Community support would have a real impact on the action and its scale, ambition and outcome 3. Adequate dissemination plans for optimal use of results, also beyond the participants to the project 4. The extent to which the project mobilises a critical mass of resources in Europe (only CA) 	<ul style="list-style-type: none"> - Does the proposed action provide an appropriate answer to the needs expressed by the civil society? - Is there an appropriate plan in place to disseminate and use the results? - Will the project contribute to a better communication with society? Will the scientific results be readily understandable to the general public? - Does the consortium include participants from areas/regions where “Science Shops” are less developed and/or does the project provide some practical support for the creation of new science shops (if applicable)?
Quality of the management	<ol style="list-style-type: none"> 1. The extent to which the project management is of high quality 2. Plans for the management of knowledge, IPR and innovation activities (only CA) 	<ul style="list-style-type: none"> - Is the project management proposed of sufficiently high quality? - Are the practical arrangements relating to the participation of students/researchers covered in the project, and in particular with regards to their exchanges between partners (if applicable)?
Mobilisation of resources	<ol style="list-style-type: none"> 1. The extent to which the projects provides for the resources necessary for success 2. adequacy of the financial plan 3. The extent to which resources are convincingly integrated to form a coherent project (only CA) 	<ul style="list-style-type: none"> - Is the financial plan appropriate to the objectives of the project? - Are the participants providing the competences and resources necessary to carry out successfully the project (including the training for the students/researchers)?
Quality of the consortium (only CA)	<ol style="list-style-type: none"> 1. The extent to which the participants collectively constitute a consortium of high quality 2. The extent to which the participants are well suited to the tasks assigned to them 3. The extent to which the project combines complementary expertise of the participants to generate added value with respect to the individual participants’ programmes 	<ul style="list-style-type: none"> - Are tasks well distributed amongst the consortium members according to their competences? - Are the number and composition appropriate, in particular with regards to European wide coverage?

Annex II

Current “Science Shop” Commission Funded Projects

ISSNET (Improving science shop networking)

The ISSNET “Living Knowledge” network was launched in February 2003. It has Community funding to enable “Science Shops” in Europe and beyond to share expertise and know-how with the aim of improving citizen access to scientific knowledge.

ISSNET is:

- Helping to improve people’s quality of life through research
- Providing an affordable service
- Promoting and supporting public access to and influence on science and society
- Enhancing the understanding of civil society amongst policy-makers and the community.

ISSNET publishes a magazine called ‘*Living Knowledge*’ three times a year to help network members share their knowledge and expertise. To obtain a copy of ‘Living Knowledge’ please consult: <http://www.scienceshops.org/>

The network is made up of 13 partners

- Science Shop for Biology, Utrecht University (NL)
- Centre for Social Scientific Research, Education and Information FBI, Innsbruck (AT)
- Science Shop Vienna (AT)
- Science Shop Technical University of Denmark(DK)
- The Co-operation and Consulting Centre for Environmental Questions (KUBUS), Technical University Berlin (DE)
- Wissenschaftsladen Bonn (DE)
- Pax Mediterranea, Sevilla (ES)
- Citizen Science Foundation, Paris (FR)
- Chemistry Shop, University of Groningen (NL)
- Science Shop, Queen’s University, Belfast (UK)
- Interchange, Department of Sociology, Liverpool University (UK)
- InterMEDIU Information, Consultancy and ODL Department, Technical University of Iasi (RO)
- Centre for Urban Research and Learning, Loyola University Chicago (US)

TRAMS (Training and mentoring of science shops)

TRAMS is building on the work of the ISSNET, the '*Living Knowledge*' network, by providing the tools required to help set up new "Science Shops" across Europe. The training and mentoring activities that are being developed under TRAMS include a customised training programme toolbox and a partnering and exchange (mentoring) mechanism amongst members of the '*Living Knowledge*' network. TRAMS focuses on the needs of "Science Shops" users and suppliers. All members of '*Living Knowledge*' network can participate in activities of TRAMS and make full use of the results and materials. The work packages of TRAMS concentrate on 1) Mentoring, 2) Training materials, 3) Distance learning, 4) Dissemination of results. The TRAMS network consists of 19 partners:

- Wetenschapswinkel Biologie (Science Shop for Biology), Utrecht University, the Netherlands
- Chemiewinkel (Chemistry Science Shop), Rijksuniversiteit Groningen, the Netherlands
- InterMediu Information, Consultancy and ODL Department, Gh. Asachi Technical University, Iasi, Romania
- Interchange, Liverpool University, Liverpool UK
- Institut FBI, Innsbruck, Austria
- Wissenschaftsladen Bonn (Bonn Science Shop), Germany
- Science Shop, Technical University of Denmark, Lyngby, Denmark
- Fondation Sciences Citoyennes, Paris, France
- Boutique de Sciences ENS Cachan, Paris, France
- TIMCED InterMediu, Petroleum-Gas University of Ploiesti, Romania
- Foundation for Research and Technology Hellas, Basilika Boyton, Crete, Greece
- CREA, University of Barcelona, Spain
- Science Shop Vrije Universiteit Brussel, Brussels Belgium
- INTERMEDIUNET ROMANIA, Romania
- Technical University Iceland, Reykjavik, Iceland
- Science Shop for Medicines, Hacettepe University, Ankara, Turkey
- Baltic Institute of Social Sciences (BISS), Riga, Latvia
- Department of Humanities and Social Sciences, Tallinn Technical University, Tallinn, Estonia

INTERACTS (Improving interaction between NGOs, Science shops and Universities: experiences and expectations)

Cross-country study supported under the fifth framework programme to identify the necessary changes in structures and routines in the RTD system that would be required to improve the future interaction between NGOs, researchers, and intermediaries such as “Science Shops.”

The report of the work is available on:

http://www.livingknowledge.org/new%20web-content/content/documents/Interacts-final_report.pdf