Living Knowledge

International Journal of Community Based Research

Science in Society Forum 2005
Preserving Bio- and Socio-diversity through Participatory Action Research
Reflection and Reflexivity in Science Shop Social Research
EC should strengthen Citizen’s Involvement in Research
Focus: Community Based Research in Social Sciences

European Commission should strengthen Citizens’ Involvement in Research
From 3-5 February the 2nd international Living Knowledge Conference was held in Seville, Spain. The conference facilitated the exchange of experiences on participatory activities and was an important step in forwarding the Science Shop movement.

Building a Constituency
A Strategy to empower Science Shops
The Science Shops’ greatest strength is that it generates knowledge at the local level, says Maureen Butter from the Science Shop for Biology in Groningen. But she also complains about the little political impact beyond the local level. Therefore she proposes a strategy to achieve a stronger position.

Science in Society Forum 2005
Some of the main conclusions, discussions and statements of an event which gathered almost 900 participants in Brussels and a call to support a campaign for a more engaged Science Shop practice. It was amazing to see that there were also new and emerging Science Shops. Although the conference had a more traditional format – with presentation rather than interaction – there was a lot of open space for networking opportunities. Seville itself was an attractive place to hold a conference and the local staff was really helpful. We will learn from all these experiences and translate them into the organisation of the next Living Knowledge conference.

The European Commission recently has unveiled its plans for the Seventh Framework Programme (FP7), which propose a duration of seven years (2007 to 2013), a budget of 73 billion euro and a structure based on four specific programmes: Cooperation, Ideas, People and Capacities. But there will be only few money for science and society issues. That’s why the ‘European Science Social Forum (ESSF)’ proposes a Europe wide petition that critically analyses future research priorities. Against this background EC projects currently financed or starting – like TRAMS (Training an Mentoring Science Shops) – are of great importance. But at least ‘Science and Society’ is still a thematic area within the activities and programmes of FP7 which gives hope that the involvement of society groups through all programmes and projects will be possible.

The Living Knowledge network at the moment offers a discussion list with ongoing discussion, a bimonthly newsletter with updated information and the Living Knowledge magazine with its detailed reports. In the meantime, you will find a questionnaire enclosed to the covering letter to this issue of the Living Knowledge magazine. The intention of this questionnaire is to find out more about your specific dissemination and communication needs according to the offered tools. I would like to thank you in advance for filling in the questionnaire and sending it back to the editors. You will find a downloadable file of the questionnaire at the Living Knowledge website.

Yours sincerely
Norbert Steinhaus

Editorial

At the beginning of February around 250 people from 30 countries all over the world participated in the second international Living Knowledge conference in Seville, Spain which focussed on ‘Advancing Science and Society Interactions’. The number of participants attending the conference and the range of backgrounds and countries they came from, gave the opportunity for an exchange of good and best Science Shop practice. It was amazing to see that there were also new and emerging Science Shops. Although the conference had a more traditional format – with presentation rather than interaction – there was a lot of open space for networking opportunities. Seville itself was an attractive place to hold a conference and the local staff was really helpful. We will learn from all these experiences and translate them into the organisation of the next Living Knowledge conference.

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Mission accomplished

For 25 years Rice Lane City Farm (RLCF), a charity set up by residents of the Walton district of Liverpool has set up a city farm whose mission is to provide practical education and training for young people – especially disadvantaged young people. The RLCF has had its work evaluated from a conservation perspective, and in terms of the use it makes of the available space. Recently the charity decided it was time to find out whether people felt it was pursuing its mission effectively; how users rated its services; which services it might expand; and how to communicate what it was achieving. ‘Interchange’ helped the charity to evaluate its effectiveness and identify how it could do better or do more. ‘Interchange’ is a member of the EU-sponsored Science Shop movement, which fosters ‘knowledge for the community’ by facilitating affordable, grass-roots research. One of the few Science Shops in the UK, Interchange is a registered charity which was conceived and set up by social scientists at the University of Liverpool.

The Science Shop recruited two students studying applied social research methods to carry out two separate research projects on RLCF’s behalf. Juliet Kariuki, a sociology student from Liverpool University, used qualitative and quantitative research methods in her project. She did some participant observation, designed a questionnaire and carried out telephone and face to face interviews with young people and organisations using RLCF’s facilities. Juliet’s key findings were encouraging. Her informants perceived RLCF to provide a safe haven for vulnerable young people. Its quiet woodland, its organic produce and its sports sessions promote healthy living. It helps young people to recognise their capabilities and strengths and become motivated and confident enough to try to realise their potential. It is a good example of equal opportunities in action. These are all positive messages which RLCF needs to communicate as effectively as possible – via a website, leaflets and posters, and by establishing a ‘Friends of RLCF’ network. The research also flagged up two or three areas in which RLCF could work more effectively.

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Vetenskap & Allmänhet, VA!

Vetenskap & Allmänhet, VA (Public and Science), is a Swedish association from Stockholm aimed at promoting dialogue, openness and trust between the public – especially the young – and researchers. It endeavours to stimulate greater dialogue around issues that concern people, and to connect these issues to science.

Postulating “Science’s understanding of the public is just as important as the public’s understanding of science”, VA wants to stimulate interaction between researchers and people in all segments of society by inspiring others, creating and catalysing more dialogues and events, and disseminating knowledge about what is happening.

VA is a non-profit association based on the broad involvement of organisations, public authorities and institutions, labour confederations, companies, private associations, religious groups and private individuals from across Swedish society. VAs’ activities are supported by the Swedish Ministry of Education, Research and Culture, with financing from membership fees and project grants.

Vetenskap och Allmänhet has published two studies gauging perceptions of science by different actors in the scientific and education communities. The surveys were made available at the recent Science in Society Forum, hosted by the European Commission in Brussels. The first, published in late 2003, asked scientists and researchers themselves how they see their profession and explores their view of public attitudes to their work. In the second, completed in 2004, it is the turn of teachers to offer their opinions of science and researchers. Both can be found in English on the VA (Public and Science) website

The purpose of the studies, according to VA, is to help guide programmes aimed at strengthening dialogue between researchers and the public and to create broader commitment to knowledge and learning.

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Resources available

CCPH is a membership organisation that promotes health through partnerships between communities and higher educational institutions. Many of its members are involved in community-based participatory research partnerships.

CCPH supports Community Based Participatory Research (CBPR) in the United States and increasingly around the world through its work, for example, to identify best practices, disseminate information, provide training and technical assistance, link networks of CBPR practitioners, and advance funding and policies that support CBPR.

“It was a pleasure to meet so many of you in person at the second Living Knowledge conference ‘Advancing Science and Society Interactions’ in Seville. As always, I met a terrific group of people and found so much to learn from my colleagues (friends, both old and new). The discussions and presentations about the progress and future of this field are quite exciting and I look forward to collaborating with all of you to achieve our missions,” said Jen Kauper-Brown and points out the resources on community-based participatory research available through CCPH.

Resources include the CBPR listserv as a valuable resource for keeping up on the latest news, funding opportunities, conferences, etc for CBPR and the archive, presentations, funding directories and course syllabi, are available on CCPH’s webpage.

Contact: Jen Kauper-Brown, Community-Campus Partnerships for Health, Tel. ++ 206-543-7954, jenbr@u.washington.edu, www.ccpph.info
Streetwise Communications

In April 2005, Streetwise are bringing together young people from six communities in Australia for a two day lobbying event, “Street Talk.” Young people will meet with policy makers to discuss issues including health, education, public space and police harrassment. Streetwise specialises in communicating critical social information to young people and hard to reach groups. For almost 20 years Streetwise has produced accessible, entertaining and relevant comics and resources on issues such as law, health, employment, safety and discrimination. During 2005 Streetwise is celebrating 21 years. A student from the University of Technology Sidney (UTS) will be managing the process of documenting the event and issues discussed within a project coordinated by the UTS Shopfront. UTS Shopfront is a university-wide program that acts as a gateway for community access to the University. It links disadvantaged and under-resourced community groups to university skills, resources and professional expertise. This allows projects that would not otherwise proceed to be completed with multiple benefits for both the community and students. Another student is assisting Streetwise to document their history, completed projects, publications and artwork since 1983 and to organise a historical exhibition on their work as a mirror of Australian social issues in the last two decades.

Contact: UTS Shopfront, PO Box 123, Broadway NSW 2007, tel. + (02) 95 14 2900, Pauline.Oloughlin@uts.edu.au, www.shopfront.uts.edu.au

Citizen Participation in Science and Technology

In the last decades, the involvement of civil society and citizens in policy deliberation and decision-making processes relating to scientific and technical issues has undergone significant and also highly heterogeneous changes in European countries. Ways of involving civil society have been very diverse, ranging from social mobilisations, the development of associations and NGOs, to the introduction of formal participatory procedures in more or less institutionalised decision-making and deliberation settings. Bringing together the different actors, pooling their various capacities, and integrating their various contextual perspectives through a common platform, will provide an opportunity to disseminate useful practices more efficiently, to boost innovation, and to foster the emergence of a European culture of participatory democracy in scientific and technological issues.

The CIPAST project (Citizen Participation in Science and Technology), which started on April 1st and will be coordinated by Cité de la Science et de l’Industrie, Paris, a science and Technology museum, aims at bringing together organisations that have significant experiences in the use of participatory procedures in scientific and technological issues. It also will identify experienced actors belonging to the different families in that field (parliamentary offices, research institutes, science shops and science museums, academic researchers), or are already structured in European networks. The identified organisations will be mobilized for setting up a training programme tailored to the various contexts in which participation of civil society is relevant, and offer it to decision-makers belonging not only to the political sphere, but also to research sector, non profit organisations and industry. A special effort will be made to identify participants in the new member states of the E.U. The increasing international network of Science Shops and their demand-driven and bottom-up approach to facilitate and develop citizens’ access to, and use of, scientific information, knowledge and expertise was identified for possible future cooperation. Relying on the transfer of expertise and training activity, CIPAST platform will moreover contribute to structure an expanded network of European organisations involved in participatory processes. Several workshops and a final conference, as well as a website, discussion lists and a newsletter will help to disseminate best practises and circulate information and documentation.

Contact: Roland Schaer (coordinator), Director Sciences and Society, Cité des sciences et de l’industrie, Paris, France, r.schaer@cite-sciences.fr or Norbert Steinhaus, Bonn Science Shop, Germany, norbert.steinhaus@wilibonn.de

Living Knowledge
The second Living Knowledge Conference in Seville facilitated the exchange of experiences on participatory activities.

At the beginning of February around 250 people from 30 countries all over the world participated in a three days international conference in Seville, Spain, which focussed on 'Advancing Science and Society Interactions'. The conference was organised by the International Science Shop Network that has been awarded financial support by the European Commission through a project called ISSNET (Improving Science Shop Networking).

Scientists all over Europe are more and more creative in developing activities to improve the public understanding of science and technology. But demonstrating the 'wonder of science' is not sufficient. Our knowledge based society only works if knowledge transfer towards citizens takes a clear turn for the better. The dialogue between society and science needs to be a two-way street where all listen as much as they talk. To give science and society an understanding of each other's needs a different approach for citizens' participation in science is necessary. Within the concept of 'social demand' for knowledge there is an increasing necessity for communication from society to researchers. The dialogue between the public on the one side and researchers and experts on the other side will be more promising, when the public is able to discuss 'science/society' issues in full knowledge and understanding of scientific 'facts', of the results of the research, of scientific action and of the way in which research operates in practical terms. The dialogue also will be more productive when researchers better understand public needs and societal demands.

Science Shops and Community Based Research (CBR) centres have shown they can facilitate the process by providing independent, participatory research support in response to concerns experienced by civil society. Sharing the expertise of Science Shops advances citizens' ability to participate in the dialogue between science and society.

The 2nd 'Living Knowledge' Conference, held in Seville from 3-5 February 2005, offered a unique opportunity to scientists, policy-makers and practitioners in community based research to share experiences and build networks for approaching citizens participation in science.

The conference themes included 'the impact of communities on the research and policy agenda' and gave ideas on how citizens can participate in research and policy making. The conference encouraged the development of infrastructures for mediation and communication of community based research and discussed local and global demands for access to research, science, education and technology.

In workshops and plenary sessions more than 60 speakers not only from Europe but also from North-, Central- and South-America, Africa, Middle East and Far East gave their examples of best practices. "I really like the intercultural atmosphere, talking to people with different backgrounds", a conference participant told during a coffee break, and explained that taking the opportunity for networking was one of her main aspects for joining the conference.
Out of the huge palette of presentations and experiences at least three main conclusions can be drawn:

**Growing need for true participatory activities**

In addition to the demands made on research and development by commerce and industry, ‘civil society’ organisations have their own research needs. Community based research shows a great and attractive variety in involving societal groups. But there is still a growing need for true participatory activities, having citizen groups and researchers working together in research projects on a base of equality. The ‘public’ demand to discuss questions on social values, and the risks associated with scientific progress is still emotional but no longer ignorant on technical questions. Citizens more and more refuse the ‘traditional’ process of passive consumption of a knowledge actively acquired by experts. Facing problems and involved in conflicts on different levels citizens want to be able to take part in the research and decision making process.

**Breaking out of the local**

Science Shops and similar organisations in community based research (CBR) in general are small and local entities, bound to local conditions. And even citizens concerns and needs for research seem to be very local. From the examples given at the conference it became clear that the expressed societal demands are not local at all. At many places all over the world the same needs and the same demands for the sharing of knowledge are expressed. Breaking demands and needs out of the local facilitates collaboration and research cooperation at an international level. It broadens the base of knowledge and experience and increases citizens empowerment. Community based research cooperation will also give opportunities to develop citizens based research themes within research institutes and research consortia.

**Strengthening the EC Science and Society programme**

At the ‘Living Knowledge’ conference there was a strong will to built on the momentum to strengthen the EC Science and Society programme by giving input to its activities. In the 6th framework programme the EC started a process to implement science and society interactions in the European Research Area. This process isn’t finished yet and should be continued in 7th framework programme. Looking to the future, the conference participants would like to see Science Shops playing a role in introducing new research themes to the EU agenda driven by the needs of local communities. “In FP7 we would like to see civil society representatives involved
new organisational forms in connecting scientific and civil society. Science shops are still small entities and their activities benefit the local community, but within a network they can reach a critical mass to promote local challenges and experiences to a broader level.

Notes:
The conference was part of the EC project ISSNET (Improving Science Shop Networking). This project is funded under the FP5 Human Potential programme (project number HPRP-CT-2002-00011).
For more information about this project, Science Shops or the conference please contact the International Science Shop Network Living Knowledge at: isso@bio.uu.nl, +31.30.2535796, www.scienceshops.org, www.livingknowledge.org, Caspar de Bok (c.f.m.debok@bio.uu.nl) or Norbert Steinhaus (norbert.steinhaus.wilabonn.de)

At the 2nd Living Knowledge conference in Seville many examples have been given to improve citizens involvement in any participatory process. Especially in research projects citizens involvement is more and more important from the very beginning. Of course, there is no ideal way of communication between scientists and citizens, but all experts agree that every country can profit from the experiences of national projects by cooperating on an international level.

The 2005 International Science Shop Conference was obviously an important step in forwarding the Science Shop movement. It did not only present useful approaches in knowledge transfer but also opened possibilities for future cooperation to foster in the agenda setting, with sufficient support for small scale themes as well as large, says Caspar de Bok from the Utrecht Science Shop and project coordinator of the EC project called ISSNET (Improving Science Shop Networking). “In science, research and the Lisbon agenda,” he continues, “the economy should not always play the leading role – we also need to keep an eye on social capital.” The conference participants and all actors in „science/society“ issues are invited to give input to the development of new ways and new activities that strengthen citizens involvement in research.

We cannot communicate without a dialogue. In addition to the demands made on research and development by commerce and industry, „civil society“ organisations have their own research needs. Diffusion of knowledge often focuses on communication from researchers to society, but increasingly there is a demand for communication from society to researchers.

“There is still a tendency to present ‘the public’ and ‘the experts’ as two separate monoliths”, Alan Irwin, dean of social and environmental studies at Liverpool University wrote in the Living Knowledge magazine. He continued: “We should be aware of the challenges (and opportunities) the new openness for public engagement and scientific citizenship offers for the future”.

“Better communication between researchers and citizens is needed to improve the quality of science and the quality of society,” says Caspar de Bok from the Utrecht Science Shop and project coordinator of the EC project called ISSNET (Improving Science Shop Networking). “In science, research and the Lisbon agenda,” he continues, “the economy should not always play the leading role – we also need to keep an eye on social capital.” The conference participants and all actors in „science/society“ issues are invited to give input to the development of new ways and new activities that strengthen citizens involvement in research.

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As working for marginal groups incurs the danger of being marginalized ourselves, I’d suggest to strengthen our position by strengthening our political impact. The Science Shops’ greatest strength is that it generates knowledge at the local level. As such knowledge frequently addresses the implementation gap between national and international decision-making, it follows that such knowledge is highly relevant for a university’s reputation as well. Moreover, most NGOs cannot plan ahead for long, because they have to, their funding depends on the political agenda. Their strategy is to target specific campaigns to the political agenda, following the major UN conferences. Most comprehensive is Agenda 21 from the major UN conferences. Most comprehensive is Agenda 21 from the 1992 Rio Conference on sustainable development, meaning both environmental and social sustainability. Processes like the Beijing Conference on the position of women, the Cairo Conference on population and development, the Social Summit etcetera belong to the social sustainability track, the POPs convention, the Environment for Europe process, the WHO-led Health and Environment processes and the World Water Forum are more relevant to the environmental track. At the WSSD in Johannesburg 2002, the EU agenda was updated and a time schedule was set for evaluation and implementation. Since the major UN processes follow a cycle of 10 years, with a mid-term evaluation, the CSD (Commission for Sustainable Development, the EU agency responsible for implementation of the Johannesburg summit) has scheduled its annual meetings in some detail for the first 5 years and more generally for the second 5 years. The EU agenda is scheduled by the European Commission, but it often works in synergy with the UN agenda. NGOs with consultative status are involved in preparatory meetings and are invited to participate at the main events. Near the end of the preparatory process, large coalitions are formed, as NGOs are only allowed a limited opportunity for interventions. The larger NGOs nowadays are highly professionalized organizations with either their own research facilities or excellent contacts with reputed research institutions. Their strategy is to target specific campaigns to the political agenda and to collect information about implementation gaps and emerging issues by employing consultants. After the conference, they drop the subject and rush on to the next topic. They have to, their funding depends on the political agenda. Moreover, most NGOs cannot plan ahead for long, because there is generally little time between the (annual) decision on their project funding and carrying out the project.

The role of research

The research agenda too follows the political agenda, but with considerable delay. For example, at the WHO-led ministerial conference on health and environment (June 2004, Budapest), health of children was the central topic. Parallel to and in synergy with the Budapest process, the EU arrived at an Environment and Health Action Plan, the SCALE initiative,
ANPED works to empower Northern Civil Society in creating networks, and environment, development and consumer groups. A network of over 100 local and national NGOs, national NGO ANPED, the Northern Alliance for Sustainability, is a democratic specification to the Seville Conference, ANPED and WECF. National decision-making. I invited two networks meeting this with the local level. And they should have influence on inter, issues. They should have a great number of members, involved interested in issues of integration, thus cover a broad array of constituency as we do: community groups. They should be network are NGO networks that basically serve the same field is compartmented, politicians and NGOs alike are compartmented. They specialize in a certain field, for example energy and scarce resources. They may know everything about energy and nothing about health. That’s why we are stuck with energy and materials efficient houses, poorly ventilated and made from recycled materials, that are not exactly conducive to good health. Similarly, the Budapest Conference stressed the need for adequate house warming in poor regions, without any reference to the type of energy preferably employed. A good recipe for future problems!

In real life, that is, at the local level, environment, health, infrastructure, social rights and economic opportunities are all intertwined, as we from the Science Shops are well aware. The implication is, that local level knowledge, addressing the contingencies between sectors, in so far as they are not yet an issue, have the best chance to yield politically relevant information. For example the intersection between gender, health and environment is interesting as well as under-researcher, addressing both social rights, mechanisms and outcomes in terms of health and environment. But we need NGOs to bring our results to the political arena.

Opportunities for the Science Shops

Science shops have one major asset: they address the local level, the place where the real problems are, many of which are addressed in international decision making. As the political field is compartmented, politicians and NGOs alike are compartmented. They specialize in a certain field, for example energy and scarce resources. They may know everything about energy and nothing about health. That’s why we are stuck with energy and materials efficient houses, poorly ventilated and made from recycled materials, that are not exactly conducive to good health. Similarly, the Budapest Conference stressed the need for adequate house warming in poor regions, without any reference to the type of energy preferably employed. A good recipe for future problems!

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Suitable partner NGOs

The natural partners for the international Science Shop network are NGO networks that basically serve the same constituency as we do: community groups. They should be interested in issues of integration, thus cover a broad array of issues. They should have a great number of members, involved with the local level. And they should have influence on international decision-making. I invited two networks meeting this specification to the Seville Conference, ANPED and WECF. ANPED, the Northern Alliance for Sustainability, is a democratic network of over 100 local and national NGOs, national NGO networks, and environment, development and consumer groups. ANPED works to empower Northern Civil Society in creating and protecting sustainable communities and societies worldwide. It provides a platform for its member organizations, where they can identify common concerns, take advantage of each other’s expertise and develop a common position. It helps to build capacity in a broad range of issues and it represents its members in processes of international decision-making.

WECF, Women in Europe for a Common Future, is a similar network of 63 organizations in 27 countries, focusing on achieving real improvement in the daily life of citizens. They adopt a strong gender perspective and are very much aware, that local sustainability involves a lot of integrating effort, linking up issues of health, environmental degradation, poverty and economic opportunities in a host of settings. Apart from the advocacy and capacity building activities, which are quite similar to ANPED’s, they also engage in a broad range of practical projects with local partners, like ecosanitation in Rumania and Ukraine, improving local democracy in Russia, organic agriculture in Uzbekistan and many others. They often take local NGOs to the political platform (for example the UN World Water Forum), thereby enormously empowering these NGOs.

NGOs like WECF and ANPED can help to get us more political support, to empower researchers doing relevant work by inviting them to high level meetings and to raise funds for specific projects. But even more important: they can have an impact to the research agenda, since the research agenda follows the policy agenda. So, if we think some type of research is important, for example green technology in a variety of settings (urban, rural, Eastern European, arctic, U.S. and EU), we can do some student projects in these areas and ask WECF and ANPED to lobby for green technology at the CSD and the Environment for Europe agenda. That will place us in an excellent position for larger projects as soon as it is in the research programmers.

Developing common ground: the next conference

The next conference provides an excellent opportunity to build such partnerships. It should not only address the current research policy agenda, but two or three other policy platforms as well. It should not only involve a skill share and networking between Science Shops, but also a skill share between NGOs, and between NGOs and researchers.

We should not only aim at a joint research agenda, but also to making joint policy recommendations for the research agenda and the political platforms in which the NGOs are involved. We should aim at the long term, and target persistent problems, as well as cross-sectoral issues. Important too, is taking the disadvantaged groups seriously, which means incorporating their experiences in our research.

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Focus
At the Science in Society Forum (March 9-11, Brussels) around 900 participants discussed the state of the art of the science and society relations in the EC and the impact of the Science and Society programme. Also actions and initiatives to improve the science and society aspect in the future EC Research policy, namely the framework programme 7. Besides discussions there was a wide range of showcases, presenting current projects supported under the Science and Society programme. The Living Knowledge network was one of the showcases. The main conclusions, discussions and statements can be clustered around four themes:

Science, society and the Lisbon Strategy
The Lisbon Strategy is seen as a challenge for the transition to a knowledge society in Europe. There is a need for a broad concept of innovation with an enlarged vision of the role and place for citizens. Citizens participation can strengthen research. There is a need for a balanced argument between the technocratic-economic concept of science and civil society demands. EU commissioner for Research Janez Potočnik stated that ‘this strategy should not exclusively be placed in an economic context’.

Science, technology and democracy
Critical citizenship has a positive role in building a democratic society. There is a need for a greater society role in the agenda setting of research. This was clearly expressed at the session ‘Civil society and science: an increased role of NGOs?’ As a result from this session and previous activities of the European Science in Society Forum (ESSF) a petition has been written (see infobox on the right). Visit the news section of the Living Knowledge website to read the petition. And of course sign it, if you support it.

Towards a culture of science communication
Scientists should be rewarded to bring science to society, instead of being ‘penalised’ by the present scientific culture. Citizens engagement in research is an important factor to shape a socially sustainable future.

Fostering diversity, inclusiveness and equality in science
The EC needs should continue to play a pro-active role in these issues. These issues all need attention on their own. “Communication has to do with people. If you want to talk about science you cannot make a panel with grey old men. If you do so you cannot wonder if the girls say ‘Oh, this has nothing to do with me’, explained Elisabeth Rasekoala, Director of the African-Caribbean Network for Science and Technology.

After two and a half days of presentations, discussions and networking it became clear there is a need for a more social dimension in the European research. Real citizens involvement needs to be realised in an early stage, by creating a real partnership from the very beginning of projects. The science and society programme can make the difference. Big parts of the research community have seen the proposals in the Science and Society Action plan as too radical. There is a need to look forward with new ideas and instruments. “We must build any tomorrow with the ideas of tomorrow”, said Francois Biltgen, Minister of Culture, Higher Education and Research of Luxembourg. In its final remarks Janez Potočnik concluded that Science and Society needs to be a part of the future EC research policy to move from ‘science and society to ‘science in society’. This also includes a relook on the financial views from the past.

A more detailed overview of the Science and Society Forum an its conclusions can be found at the Science and Society Forum website (http://europa.eu.int/comm/research/conferences/2005/forum2005/index_en.htm) or visit the section ‘News’ at the Living Knowledge website (www.livingknowledge.org).

Campaign for a FP7 more engaged with sustainability and social justice
During the Living Knowledge conference in Seville, Claudia Neubauer from the „Fondation Science Citoyennes” from Paris presented a recently created informal network called « European Science Social Forum » that is currently running an initiative on Framework Programme 7. FP 7, the research & development programme of the European Commission will start in January 2007 and run for probably seven years which is much longer than the previous programmes. A budget of about 40 billion Euros for the programme is discussed.

All communications and reports coming from the EC and the European Parliament and concerning FP7 signalise that there will be very few money for science and society issues as well as issues directly related to sustainable development (such as low-input and sustainable food production, responsible resource use, conflicts and social processes, socially-responsive research processes, integrative approaches to diseases, etc.). The main part of the budget will go to genomic research/biotechnology, nanotechnology, aeronautics and space, security, nuclear research and information technologies. That’s why the ‘European Science Social Forum’ proposes a Europe wide petition that critically analyses future research priorities and the vision of society they portray. The ESSF proposes a kind of alternative programme and vision. The ESSF has sent a letter to members of the European Parliament and the European Commissioner for Research, Mr. Potocnik, already before the first official draft for FP7 was presented.

You can find the full text of the petition and a very simple signature procedure at: www.essfnetwork.org
The Environmental Social Science Research Group (ESSRG) is a university research group established September, 2004 at the Institute of Environmental and Landscape Management, St. István University, Gödöllő, Hungary. Founded by a group of university professors and PhD students belonging to various disciplines ranging from agri-environmental engineering through economics to sociology, ESSRG aims at the understanding of environmental issues from a social scientific perspective. In addition, researchers and students of other disciplines, such as biologists, anthropologists, lawyers from various other Hungarian universities and non-governmental organisations collaborate on a regular basis.

Mission and research profile of ESSRG

The ESSRG integrates natural and social sciences in an analysis and understanding of cultural, political and economic consequences and ethical aspects of environmental issues. The principal objective of ESSRG is to study the social dimensions of environmental issues. These include the behavior and attitude of individuals and the groups, organizations and institutions they create. The research group favours public policy-oriented empirical enquiries based upon a wide variety of methodologies, cross-disciplinary dialogue and an extended peer community. ESSRG builds on the social responsibility of the academic sphere and embarks on various community outreach activities by involving students as co-researchers. It also implies that scientifically trained researchers and local people working on the same level of knowledge in a self-reflective and creative way with an equal standing throughout the research process. The researchers’ awareness of historical specificities, situatedness and temporalities supports the empowerment of local people, with special attention to giving voice to groups in marginal positions.

Community-based planning in the South Borsod Region

The research was conducted in the “Borsodi Mezőég” Environmentally Sensitive Area, Hungary, which is officially designated as one of the most disadvantaged areas of Hungary, both in economic and social terms. This position has a lot to do with the radical changes in the ecological characteristics of the area. The research is committed to the practical application of science through launching a community-wide learning process and creating a learning environment to bring the region closer to its own sustainability ideals.

The aim of the project has been, on the one hand, to understand local people’s perception and formation of opinion against the background of the historical relationship between nature, society and economy in a particular landscape. On the other hand, the research aims to initiate specific actions together with local people building on their local resources and capabilities to improve on their quality of life, including their sense of self-efficacy. The process of local people working together is considered more important than the accomplishment of any specific research action or target.

The learning process is enhanced through community-based research frameworks, such as the Participatory Action Research method and the Appreciative Enquiry, which both facilitate actions for change. The concrete participatory methods applied include narrative interviewing, direct observation and participatory transect walks, focus group discussions and a “Vision to Action” type of community forum. Learning is taking place by including all stakeholder values and perceptions giving particular attention to those who are in a marginal position, such as poor people, Roma people or women. The researchers together with local teachers and experts of two nearby national parks organised a “Day of Nature Preservation” for local children. In addition a community planning forum was held in order to bring together local people who are holding politically and socially significant positions in order to share their visions and discuss possible actions within the micro-region, grasping the idea, as well as some technique of community-based, participatory development.

Raising community awareness for local ecological values

In 2003 a community outreach project was initiated in the Orség–Vendvidék Environmentally Sensitive Area, located in the southern-western part of Hungary, at the Austrian and Slovenian border. The traditional economic activities of local people had a major and, for centuries, beneficial impact on the landscape, even enhancing biodiversity.
Key features of this mosaic-like landscape have been very particular orchards, used at the same time as meadows for grazing. The fruit trees, particularly apple, pear, and plum, constitute an important spot for genetic diversity, since local varieties, so-called landraces, have been evolved in and adapted to the particular ecological conditions characterising the landscape. The products of the fruit trees always played an important role in the economy and culture of local communities.

However, this sustainable co-evolutionary relationship between local people and the landscape has gradually changed during the last fifty years. Most of the local resources have lost their significant contribution to the well-being of local population due to the economic, social as well as political structures prevailing after World War II. The regime change from communism to capitalism has not changed the situation for the better with regard to the preservation of and sustainable living with local ecological resources. Most of the orchards have been abandoned or transformed to intensively cultivated spots, disregarding adverse ecological impacts and the loss of cultural heritage. Fewer and fewer local families are aware of the ecological and cultural values that fruit landraces have been representing. Although the area belongs to a national park that has a programme targeting the preservation of genetic diversity of fruit trees no communication towards or involvement of local people has been carried out.

A small-scale project was initiated to provide opportunities to take an active part in preserving local ecological values for both local people and national park officials. A project-based community learning initiative involving pupils of the four local primary schools and graduate university students of agri-environmental engineering were implemented with the assistance of university lecturers, local teachers and national park experts. Pupils and students have successfully mapped most of the gardens in six villages, and also the fields and woods nearby, so the place, the type (local name), the age and the stories of the old fruit trees were registered. The local children, aged from 8 to 14, were taking photos and making drawings of the fruit trees in different seasons (when they were blossoming and when they were fruit-bearing). Also local tales, legends, food receipts and any other cultural aspects of old fruit trees have been collected.

The project ended with a series of exhibitions, touring from the headquarters of the national park to each local school, where the involved children presented their pictures and drawings. By being a special community event and through its local media coverage, the project has contributed to the awareness of local people regarding the ecological values of their own landscape. It provided an opportunity to build cooperative relations between local communities and national park officials.

### Valuing forest ecosystems by local communities

This exploratory interviewing and focus group research aimed at assessing perceptions and major themes of interest with respect to non-market values and sustainable forest management (SFM) in the most forest-dependent communities of rural Hungary, located in the Őrség–Vendvidék Environmentally Sensitive Area. According to the judgment of local people it has been found that the re-emergence of community-based co-management forest property rights was fundamentally unsuccessful within the transition from the socialist to the post-socialist property regime. The Hungarian restitution process made private management badly flawed, traditional ecological knowledge disappearing, many owners’ attachment to SFM rather unstable. Changes in property regimes also contributed a lot to present ecological differences within the sub-regions of the environmentally sensitive area (Őrség and Vendvidék).

Eliciting forest management attributes, traditional and expert knowledge forms, informal norms, behavior codes, recreation and bequest values as well as perceptions about manifold economic-societal benefits of local foresters and owners has improved our understanding on non-market based decision-making perspectives in forest management. Giving voice to stakeholders who have the most to lose and the least power to influence national forest policy decisions is a useful input for developing efficient SFM institutions and policies.

### Valuation of agro-biodiversity in smallholder farms

Only a few crop landraces other than maize or beans remained on farms in Hungary. Though Hungary is not a center of origin for these crops, Hungarian landraces bear distinct characteristics of both potential social and private value to the farmers who manage them. Agro-biodiversity encompasses many types of natural resources, including a wide variety of genetic resources as well as the ways farmers manage biodiversity. Traditional small-scale farming in home gardens maximize crop biodiversity and enhance plant genetic resource conservation by saving, selecting and propagating seeds for various farming benefits. Crop biodiversity management on Hungarian family farms was assessed in an extensive qualitative research with special regard to the maize or beans seed-saving local farmer communities.

Group discussions were focusing on the local valuation, narratives and understandings of landrace, maize or beans seed choice, perception and management of crop biodiversity. By identifying motivations behind farmers’ seed choice and by eliciting farmers to assign to landraces, this policy-oriented research process contributes to the empowerment of local seed systems. The exploratory nature of the research requires the application of qualitative methods to understand the complexity of decision-making. The deliberative and participatory research process applied
Reflection and Reflexivity in the Science Shop Social Research

by Irene Hall and David Hall,
Interchange Science Shop, Liverpool University

This article considers how reflection can be used in social research. It shows how reflection is linked to social theory, particularly critical theory and experiential learning, and offers examples of how researchers can practice reflection through learning logs or diaries to improve their Science Shop research projects.

Reflection is an important part of applied social research. It allows the researcher to stand back and consider how the research is proceeding, and what personal as well as methodological issues need to be dealt with. Reflection enables researchers to describe and analyse their feelings – and to take appropriate action as a result – a process which is aided by the researcher keeping a research diary or log. A final reflective account is valuable when the research is part of an academic programme. Reflection can be distinguished from reflexivity. A key sociologist who explored this concept, Jürgen Habermas, saw reflexivity as an essential part of achieving emancipatory knowledge, which aims to produce a transformation of the social or world situation and of the self, or the personal. For Habermas, how knowledge is produced is as important as what is produced – both processes should be concerned with challenging oppression and creating a just and equal society.

Such ideas have been developed in critical social research which aims to dig beneath the surface of social relations, to the oppressive social structures which underlie them (e.g. emancipatory disabled research aims to locate disability problems not within the limitations of individuals but within societies which construct obstacles for disabled people). For critical researchers, research is conducted through dialogue, rather through a one-way transfer of information from an informant to a researcher. Researcher involvement requires awareness of ‘positionality’ – of the positioning of the researcher within a wider structure of how they come to understand knowledge as well as how they come to produce it. In relation to Science Shop research, it is valuable for students to understand and clarify their value position, and to find a method of conducting research with which they are comfortable, intellec-

Cooperation with the civil sector

In 2005 ESSRG has established the Community Service & Volunteer Center of St. István University in cooperation with the Gödöllő Regional Civil Network. The aim of the center is to provide opportunities to gather on-site and practical experiences at local NGOs to students as well as to make direct links and contacts to the labour market for a smooth entrance after finishing their studies. Another important aim of the Center is to encourage students to participate in and actively contribute to the local community initiatives through their outreach activities. Our long term aim is to build a complex and established structure of local cooperations among the university, students, the NGO sector, the local authorities, members of the community so that locally available resources are effectively utilized to improve the well-being and the social capital of the whole community.

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Las Vegas, Nevada, USA

This article has been adapted from the chapter Reflecting on Evaluation in Hall I & Hall D, (2004) Evaluation and Social Research, Palgrave
tually, politically and emotionally. Such research should be non-exploitative, and because it is negotiated with a community partner, it may also be emancipatory, at least in the sense of providing the opportunity for university- or professionally-led research to a group which would otherwise be excluded from such a resource. The debate on reflection, comes from a different intellectual tradition, and is more concerned with how the self experiences learning processes. This includes theories of experiential learning and here the key writers include John Dewey, Donald Schön and David Kolb. Schön studied reflective practitioners in a variety of disciplines and found they had to transform theorising from reflecting on past experience (reflection-on-action), to being able to improvise during the course of intervention (reflection-in-action). For Schön, reflection in action provides a way of opening up to possibilities which might otherwise be blocked off. It helps produce flexibility in finding solutions when objectives are unclear or problematic. Both reflexivity and reflection can be aided through keeping a research diary or journal, similar in many respects to a learning log, which is used in experiential learning programs for students to record actions and reflections. Such recording can contribute to producing good evaluation through reflection in action. A reflective overview after the study is completed, reflection on action, is a valuable way of dealing with feelings, as it enables the researcher to analyse conflicts and difficulties when emotions have settled, through a more distanced perspective. For student researchers, a reflective report, as well as being a place to offload feelings, is where they can discuss contextual, theoretical and methodological issues and changes in personal learning and skills and this can form part of their assessment.

Reflection on action.

Diaries can be free-form, but some structure is helpful, particularly when entries are being reviewed. For instance, the diary could have a simple format of three columns: Date – Activity – Reflection. This has the advantage of being straightforward and relatively easy to complete (although it misses out an action phase – the outcome of the reflection). In the example below, a graduate student recorded action taken (or to be taken) and then added her reflections. She was conducting an evaluation of a program working with abusive men, which was organised by a women’s aid group.

A practical word of caution is, whatever system is used, to keep the diary simple, otherwise it will become so laborious to complete that it may simply get avoided altogether. Where a reflective report is required, issues to be covered include Context, Theory, Methodology, Research Design, Role relationships and Reflexivity, Ethics, Personal reflection, Skills, Would I do anything differently? References, Appendices.

Last word from one student who concluded his reflective account with a summary of what his Science Shop project had meant to him. For me the project has been the most fun packed roller coaster ride I have ever encountered. I know I have just done one project; I know that I’m just ‘starting out’, but I’ve learned so much from this experience. Learned ‘doing it’ really, truly, madly and deep isn’t like anything I expected, and I want to do it again. Please.

(Martin Chamberlain, 1999)

Example: Diary: Women Against Abuse Group

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.01.02</td>
<td>Rang MW to confirm that she had received documents. This confirmed and MW advised she was happy with the documents. She pointed out that group sessions run on Wednesday and not Tuesday. I noted this. Confirmed meeting still okay for the 29th.</td>
<td>Advised MW looking forward to meeting with her next week.</td>
</tr>
<tr>
<td>29.01.02</td>
<td>Attended meeting with MW and KR of WAAG and MT to further discuss research agreement and research brief.</td>
<td>Notes of meeting written up (see Appendix). Need to contact MW on Friday 1 February as shown in meeting notes.</td>
</tr>
</tbody>
</table>

Reflection/personal:
Meeting very productive, so productive in fact my proposed research plan changed completely. No questionnaires. Definitely happy with this. Although not sure interviews with men only are enough. The programme is run after all for the benefit of the abused women too. Think their stories need to be heard to corroborate anything the men might say about changes in their behaviour. Also need something to support/validate the usefulness or not of programmes like WAAG (need more reading). Actually happier with new plan – seems more manageable. Discussion now over and need to get down to the actual work. Quite anxious about the next few weeks and very aware of the importance of the project to Maureen in particular. Think I will feel much better once I have met the men next week at their WGP group session. Feel that I need to be myself but am very conscious that I need to gain their trust. I believe I can only be myself as I will be working with them for some time, so little point in trying to be anything else. Very anxious that they won't actually like me or trust me and am still worrying about what to wear! Just got to be myself and hope for the best.

Tina Sadler, 2003
During 2002 and 2003 the Observatory of Scientific Culture of the University of Oviedo\(^1\), together with the Iberoamerican\(^2\) States Organization (OEI in the Spanish acronym) and the Argo\(^3\) group\(^4\), developed a project of education and training of teaching staff. This project\(^4\) was financed by the Spanish Foundation of Science and Technology (FECYT), and one of its main elements is to direct technological and scientific education towards the public participation. This marks a significant proposal in the frame of STS studies.

The Science, Technology and Society approach is particularly appropriate for promoting technological and scientific education, and it is targeted towards the learning of a participatory attitudes and contributes to providing a new meaning to present-day concepts such as “scientific culture”, “techno-scientific literacy” or “science for all”. In the context of STS studies, the citizenship issue always refers to democracy, and this is inseparable from participation. A technological and scientific education, which lets the individuals to know the process and to handle devices in the world that surrounds them, fails to educate citizens’ capability for participating in democracy unless it can integrate the knowledge of how to analyse the present situation with the skills to manage it. In such education it also has to integrate strategies for developing participatory aptitudes and attitudes, referring to the discussion, negotiation and decision making related to the problems associated with the scientific and technological development. The coordinative and participatory nature of this experience of training for teaching staff, of curriculum development and educational research, is an example of community based research, bringing together the university cooperation with the teaching staff community to focus on the diffusion of scientific culture.

The project consisted of the implementation of an educational proposal, using as background material the results of several years of research in 43 secondary schools and one university from different Spanish regions. This project relied on the collaboration of more than 30 teachers. With the motto “learn through participating” and inspired by the Latour and Callon’s Actor Network Theory (Callon, 1986), by the model of “consensus congress” (López Cerezo, J.A. and Luján, J.L.; 2000) and by similar educational materials (Science in a Social Context: SISCON), the project tried to turn the classrooms (where both social and natural sciences were taught) in a genuine laboratory. The process of research to develop the scientific knowledge and devices are simulated in a laboratory within easy-to-use and controllable situations. Controversies about technological and scientific issues, which involve different actors and different values, which show up in our society are, in this sense, also revealed in the science and technology classrooms. The pupils should be prepared to participate in these controversies and decision taking as citizens too (Désautels and Larochelle, 2003).

The materials for the start up of these workshop experiences were based on the simulation of scientific and technological controversies current in daily contexts. Examples discussed were controversies related to energy resources and sustainable development; ionised radiations in daily life; the research on vaccines; town-planning and social participation, etc. These examples refer to aspects related to the pupils’ environment, and are linked to the contents of different subjects. Thus, the development of a simulation case in the classroom was followed by a sequence of common activities from every one. After a joint reading of a fictitious but credible news report, and of some additional input (both fictitious and credible) about scientific, technological, legal, etc. issues, with which the case can be organized, the teacher allocated the roles of the social actors involved among different pupils teams. The aim was for the pupils to play the role of those actors, and look for arguments in order to defend the position they had been assigned in the controversy. This simulated participation in fictitious controversies made it possible for pupils to discuss the issues as if it was a game, showing interest but without the excess of damages and personal involvement in the case of discussions about real controversies. Among some of the results of the project we can stress that the simulations made it possible to realise the interpretative flexibility of a scientific fact or a technological design; that the decisions taken in the different workshops were different from one classroom to another, even in the context of the same simulated case. Furthermore, we should consider that the closure in the simulations was possible because of the redefinition of the problem in many of the experiences (Bijker, Hughes and Pinch, 1987). Finally, in every case, the pupils’ measured values in a survey carried out at the end of the experience were higher than those in a survey carried out at the beginning. There was a progress in the knowledge about the issues and in the way of arguing their value.

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\(^1\) http://www10.uniovi.es/observatorio

\(^2\) The concept “Iberoamerican” includes Latin American countries, plus Spain and Portugal. http://www.oei.es

\(^3\) Group of teachers of secondary school on active that defends an educational restructuring. http://www.grupoargo.org

The project results fit in with the beliefs about the value of the STS courses: those pupils with problems in science subjects learn useful scientific concepts in a better way because of this kind of experience, where the contents are placed in the context of familiar issues. Moreover, this proposal made possible to connect the academic labour with the future role of the students as citizens (Waks, 1990).

The simulation cases can work as an STS module in a wide range of scientific subjects. They have a large potential, as they can help pupils to learn concepts and methods of analysis, as well as to reflect on moral issues, and learn how to participate in a scientific and technological daily world. If we suppose that technological and scientific education is useful for promoting a citizenship capable of recognizing the current world keys, of managing with autonomy in the face of different problems, and of participating in decision making related to the science and technology control and the government, these kinds of educational experiences turned out to be a success. They produced learning of science and technology contents within a social context, involving a technological and scientific activity perception that includes value aspects. They also showed a more reasonable consideration of the link between the basic research and its applied development and led to the awareness of the necessity that ordinary citizens take part in science and technology policy decision making. Finally but no less important, the experiences showed the positive impact of the incorporation of a creative and recreational dimension into the learning of science and technology knowledge.

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References
The thematic conference on “Water: Trading good – weapon – human right?” has been initiated, organised and coordinated as a broad public discussion by the two departments of the Centre for Cooperation of the TU Berlin: ‘koop’ (Cooperation between science and the working world) and the Science Shop ‘kubus’ (Cooperation and consulting for environmental questions). The conference was held in cooperation with the ‘reuse computers association’ and sponsored by the ‘Hans Böckler Stiftung’ and with support by external partners. The symposium with comprehensive facets of the different foci on the theme has attracted 150 participants of several organisation types, including members of the Federal Parliament, civil servants of different administration levels, the trade-union ‘ver.di’, several NGOs, representatives of waterworks, researchers from scientific institutes of several universities and applied research centres, as well as private persons. By means of an actual tv-documentation “Blue Gold” (about social conflicts on drinking water supply) and speeches including questions by the auditorium a vivid atmosphere arose as well as lively discussions during the plenary, breaks and poster session.

Keynote speakers have been Dr. Waltina Scheumann, Technical University Berlin getting down to the problem of water as strategic resource; M.sc.(econ.) Britta Pielen of Ecologic-Institute for International and European Environmental Policy referring about the effects of the European Liberalisation tendency on the German water market; Dipl. Ing. Karsten Schischke, Technical University Berlin, speaking about the important links between ICT production processes and the water and energy (ab)use as well as alternative strategies, e.g. reusing computers and Dipl. Ing. Mathias Ladstätter, trade union ‘ver.di’, proposing community based strategies on water use not just following the water ‘multis’. The kubus representative Dipl. Ing. Gisela Hoffmann introduced the Zero-M-

Restructuring the Centre for Cooperation (ZEK)

The cooperation and consulting for environmental questions (Kooperations- und Beratungstelle für Umweltfragen – kubus) – the only Science Shop in Berlin – was founded in 1986 as “ demonstration project”. It is part of the Technical University Berlin (TU Berlin). Today ‘kubus’ is one of four departments of the Centre for Co-operation (ZEK), which is the service centre of the Technical University Berlin for social and ecological concerns. The Science Shop ‘kubus’ as well as the closely associated department ‘koop’ - Co-operation between science and the working world identify experts and project partners, initiate and assist projects, organise and facilitate workshops and conferences and are involved and in contact with many environmental networks, NGOs and the working world.

Both, ‘kubus’ and ‘koop’, now are in a matching process to become one “Co-operation organisation” under the umbrella of the Centre for Co-operation (ZEK).

For further information – contact the Co-operation organisation:
Opening the Barcelona Science Park to the Neighbourhood

by Lourdes Riu, Marta Soler, Ramon Flecha.
CREA, Barcelona Science Park, Spain

"When I looked at the Science Park I saw a closed building. Science looks closed".

"I never thought I could go inside and that my questions could be valued."

These are some of the comments that neighbours from the district where the Science Park is located made in the first meeting of the project. Some people from citizen organizations in the neighborhood had met in the Barcelona Science Park some researchers to share the university’s intention to present university’s research to the community, as well as to listen to community’s concerns, needs and interests associated with the research done.

Dialogue between science and society

The idea of “opening the science park to the neighborhood” came from the acknowledgment that today research should be connected to society. Scientific research, including basic research, must contribute to advancing knowledge in different social arenas in order to improve our world. However, the process of reflexive modernization of society questions the concept of science without social utility, breaking with the idea of a search for knowledge defined by only one group of experts that is applied as “dogma” by general society. The concept of “experts” who know and search for the common good and “lay people” who do not know and rely on them, is changing. People need other means of reaching consensus that demonopolize the expert knowledge and allow non-experts to take part in processes of decision-making through public dialogue. In a society of growing risk and uncertainty people demand forms and forums of cooperation and consensus-building among industry, politics, science, and the people. Ulrich Beck (1994) clearly illustrates this position: First, people must say farewell to the notion that administrations and experts always know exactly, or at least better, what is right and good for everyone: demonopolization of expertise. Second, the circle of groups allowed to participate can no longer be closed according to considerations internal to specialists, but must instead be opened up according to social standards. Third, all participants must be aware that the decisions have not already been made. . . [thus] opening the structure of decision-making. Fourth, negotiating between experts and decision-makers behind closed doors must be transferred to and transformed into public dialogue between the broadest variety of agents. (pp. 29-30)

Science is becoming more and more necessary, but at the same time less and less sufficient for the social definition of truth. People can question preset knowledge and beliefs and the authority of expert systems that do not consider their contributions. Knowledge can be constructed dialogically (Flecha, Gomez & Puigvert, 2001). Science thus has changed from an activity in the service of truth to an activity looking for truth, in the service of society.

Opening the science park

The project “Opening the Science Park to the Neighborhood” is about making possible the dialogue between researchers and civil society. How are we trying to do that? Let’s have a look at the science park.

The Barcelona Science Park includes two types or research: biomedical research (i.e. Institute of Biomedical Research of Barcelona, Laboratory of Nanobioengineering Research, Center for Research on Theoretical Chemistry, Institute of Molecular Biology of Barcelona, among other) and multidisciplinary research (i.e. Barcelona Institute of Economics, Public Law Institute, Center of Research in Meteorology and Climate, Center of Research on Sociolinguistics and Communication, Research Group on Community Nutrition, Observatory of Bioethics and Law, Observatory of Globalization, among others). These are public research centers and institutes, but there are also a number of private companies, business R&D units and spin-offs conducting their work in the park. This huge research infrastructure will not make sense without the agents of civil society, who are in fact the end-users of the findings achieved by the scientific community. As discussed above, there is not doubt about the link between science and society; however, it is less obvious the extent to which researchers are aware of this connection and citizenry of their right to know what is being investigated.

For example, in the Science Park there is the Institute of Biomedical Research, conducting research on structural and computational biology, molecular medicine, and cell and developmental biology. Some of this research is oriented to find ways of curing de-generative illnesses. At the same time, in the neighborhood associations, many families share the experience of living with Alzheimer. They have many things to share and to ask for that would help researchers to focus their questions and priorities. Another example: in the Science Park there is a research on women’s studies, conducting research related to gender equality, feminist theory and new opportunities for women. At the same time, in the neighborhood there are women’s groups who meet and discuss about their daily and working lives, about issues that interest many women who are not at the university. They also have things to say and scientists must listen to their voices. The “Opening” project focuses on a bi-directional communication, trying to establish dialogues on equal basis among researchers and citizens. The project creates spaces in which neighbors from the district get to know the research conducted in the science park and researchers get to know what are the priorities people have in the topics they study. These spaces are created both in the Park and in the community.
The “Opening” project is being developed in three phases:

**Phase 1: mapping interests and needs of neighbors.** In this phase we have contacted all associations and citizen organizations in the district through email, phone and personal visits, explaining the project and how they can get involved. The “Friends of the Science Park Network” has been established to enhance flows of communication. There have been two kick-off meetings, one in the Science Park and one in a community center.

**Phase 2: coordination and development of working sessions.** Once a need is detected, a working group about the topic will be organized with the citizens and monitored by a researcher. This working group will work in dialogue with researchers from the Science Park with expertise on the particular need.

**Phase 3: dissemination.** This is a transversal activity.

Currently we are starting to organize working sessions with associations from the district, but in the long term, the “Opening” project pretends to expand these dialogues to civil society in general, beyond the neighborhood. In sum, the objectives of this project are:

- To make researchers aware of people’s needs, questions, and interests
- To make citizens aware of the kind of research being conducted
- To participate from civil society in the development of research projects
- To develop two-way science communication to increase social utility of research

The dialogue between researchers and communities is needed in order to take research priorities closer to social needs.

For more information:
http://www.pcb.ub.es/crea
http://www.pcb.ub.es/obrimelparc

References:

### A Matter of Faith

During the last decades several religious communities have settled in the city of Bonn – caused above all by migration processes. The way how people in Bonn and other German cities face religious and cultural pluralism can be characterised as looking away instead of being aware. In conviction that a open and fearless debate on the cultural and religious differences is a basic requirement for the sustainable development of citizens society, the Science Shop Bonn in cooperation with committed religions scientists and religious communities has conducted a research on the religious landscape of Bonn and published a comprehensible documentation. This was the first project of the Bonn Science Shop in the field of “religious topography”. This documentation makes it possible for every citizen to take a look into commonly closed living worlds.

“Glaubenssache. Religion in Bonn.” Ed. by Krischan Ostenrath and Wilhelm-Peter Schneemelcher. Publ. by the Bonn Science Shop Bonn. 180 p., 9,90 Euro, info@wlabonn.de.
Science Awareness
On 25 and 26th of November 2004 a workshop „Science Shops - Thinking the future and twinning old/new shops“ was organised by the European Commission in Brussels. The debate focused on the role of universities, partnerships with the NGOs and local entities, and the promotion of new Science Shops in Europe. Ongoing and new projects were presented and a possible partnership with FP6 projects („Networks of excellence“ and „Integrated projects“) was also discussed. Go to the Science shops page to download the presentations.

SINAPSE
A better use of scientific knowledge in European Governance
Expertise, and more specifically scientific expertise, is increasingly becoming an element of critical importance in the design, implementation and assessment of public policies. As a result, the policy makers must be in a position to effectively consult the scientific community and give scientists the opportunity to share their concerns and knowledge.

It is towards this end that the European Commission has, as foreseen in its Science and Society Action Plan, developed the SINAPSE e-Network (Scientific INFormation for Policy Support in Europe). The main objective of this web-based communication platform is to offer a set of essential tools to promote and encourage the effective exchange of information between all stakeholders concerned by the use of science in European governance.

SINAPSE will help the practical implementation of new forms of governance, by facilitating the involvement of actors who are currently hard to consult, and enabling them to share their knowledge and viewpoints. The network will also contribute to improving the breadth and scope of the information available to the public.

SINAPSE is open to all scientists, scientific organisations and anyone with an interest in science. The registration phase has started on 10 March 2005.

Please Contribute
Making a magazine requires participation.

Living Knowledge - International Journal of Community Based Research is published every four months. The next issue will be published in July 2005. The general topic will be “Science and Citizen Participation“. The deadline for submitting contributions is June 19th 2005.

The magazine welcomes contributions such as reports, articles, news stories, press releases and clippings, letters, contribution to discussions, job offers, internships, etc. Reports and detailed articles should follow the editorial guidelines. Information about the magazine and the editorial guidelines can be found at the homepage of the Science Shop Network (www.scienceshops.org).

Please feel free to contact the editors for questions and assistance.

What is a Science Shop?
A „Science Shop“ provides independent, participatory research support in response to concerns experienced by civil society. Science Shops use the term „science“ in its broadest sense, incorporating the social and human sciences, as well as natural, physical, engineering and technological sciences.

There is not one dominant organizational structure defining a Science Shop. How Science Shops are organised and operate is highly dependent on their context. Organisations that meet the definition of a Science Shop and do provide civil society with knowledge and skills through research and education on an affordable basis will be taken into account. There are forums for all parties interested and involved in Science Shops and other forms for community-based research. They can give input to but also get in formation from the Living Knowledge discussion list, the bimonthly newsletter or this magazine, which provide users with resources and tools related to community-based research.

Living Knowledge Website:
www.livingknowledge.org
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If you want subscribe or unsubscribe to the magazine or the newsletter please send a message to C.F.M.deBok@bio.uu.nl or visit our website at http://www.scienceshop.org and select ‘Discussion list and Newsletter’

Science Shop Brochure
An international brochure on Science Shops has been released.

This brochure was produced by the European Commission in close co-operation with the International Science Shop Network. In the brochure information can be found on activities and impact of Science Shops. The examples in the brochure give an outstanding overview of the different contexts in which Science Shops operate and the networking of Science Shops. The brochure is of special interest for people who want to adopt the concept of Science Shops or are involved in science and society issues (on a practical, political and management level). The brochure is available in English, German and French. Brochures can be ordered for free at the European Commission, Science and Society Directorate.

For ordering the brochure please contact Jette Gents, jette.gents@cec.eu.int, tel. +32.2.28.99909