Community-based research
- personal experience
- a European perspective

Forum, Conseil Régional d'Île-de-France
5-6 November 2004

Associate Professor and Co-ordinator
Michael Søgaard Jørgensen
The Science Shop c/o Department of Manufacturing Engineering and Management
Technical University of Denmark

msj@ipl.dtu.dk
Overview of presentation

• Mode 2 knowledge production
• Community-based research
• The contribution of Science Shops to universities
• Some experience from Denmark
• Policy recommendations concerning community-based research
Personal background

- M.Sc. Chemical Engineering 1981
- Ph.D. Technology Assessment 1988
- Science Shop co-ordinator Technical University of Denmark 1985-
- Associate Professor 1989-
- Main research and teaching field: sustainable development; knowledge transfer, food sector development
Community-based Mode 2 knowledge production

• Increased focus on the interaction between research institutions and society in the production of knowledge – “Mode 2”
• Mostly focus on business-government-research co-operation
• However…..co-operation with civil society organisations (NGOs) can also contribute to the research agenda and methodologies at universities => community-based research

2.2 Involving society in the scientific venture, pp. 8f.

„Nowadays scientific knowledge and technological know-how are no longer the sole result of the activities of specialised institutions. They are produced within a very broad spectrum of organisations and structures and of networks encompassing research bodies and the users, both public and private, of the products of scientific endeavour.

The involvement of patients' associations, transport user groups or consumer organisations in defining and monitoring research activities and programmes brings research and society together and helps to ensure that results match needs.“
A spectrum of community-based research models

- NGOs with own research capacity
- NGOs without own research capacity
- Independent research institutions carrying out own research and co-operating with NGOs
- University-based institutions co-operating with NGOs: mediation and research
## Typology of community-based research institutions

<table>
<thead>
<tr>
<th>University based</th>
<th>Mixed</th>
<th>Non-university based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediation Model</td>
<td>Participatory Model</td>
<td>NGO (Univ. Relations)</td>
</tr>
<tr>
<td>Central Office</td>
<td>Faculty Office</td>
<td>Germany Austria USA</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Denmark</td>
<td>Denmark Romania USA</td>
</tr>
<tr>
<td>UK</td>
<td>Denmark</td>
<td>South-Africa USA/Canada</td>
</tr>
<tr>
<td>Germany</td>
<td>Romania</td>
<td>USA</td>
</tr>
<tr>
<td>Austria</td>
<td>South-Africa</td>
<td>Canada</td>
</tr>
<tr>
<td>South-Korea</td>
<td>USA</td>
<td>Canada</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Canada</td>
<td>Canada (CURA= Community University Research Alliance)</td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA/Canada</td>
<td></td>
<td>Germany Austria USA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Germany Austria USA</td>
</tr>
<tr>
<td>Participatory Model</td>
<td></td>
<td>NGO (Non-univ. related)</td>
</tr>
<tr>
<td>Mediation Research</td>
<td>Mediation Research</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>Action-Research</td>
<td></td>
</tr>
<tr>
<td>Participatory research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>Mediation Research</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The definition of Science Shops – a model of community-based research

- A Science Shop provides independent, participatory research support in response to concerns experienced by civil society (The international Science Shop network, 2001)
Funding models for Science Shops (1)

• **Full funding by university:**
  – Direct financial support from university
  – Dedicated Science Shop staff or scientific staff, who is conducting part of their work in the Science Shop
  – Project research by students for free as part of their education, by the supervisors as part of their ordinary work or by the Science Shop staff

• **Part-funding by university:**
  – Maybe some basic funding from university
  – Dedicated studentships and grants for Master level students or researchers in Science Shops for co-financing with university departments
  – Combined with external funding from government or European programmes or private and charitable grants
**Funding models for Science Shops (2)**

- **Social entrepreneurship:**
  - Social entrepreneurs supporting socially beneficial research activity with NGOs
  - Staff conducting profitable research or other activities with organisations and funding agencies which can pay market costs.

- **Co-funding with NGOs for research and evaluation:**
  - Co-operation with NGOs when they are making application for funding by having Science Shop research written in to the bid to provide evidence on the monitoring and evaluation of services.
The understanding of the relations between society, university and science shop

Knowledge need

Science shop
- Resources
- Organisational affiliation

Students
- Social interest
- Competencies
- Economic conditions
- Curricula

Researchers/Teachers
- Time
- Research interests
- Publishing

University management

Societal expectations to
- Candidates
- Researchers/Teachers

Departments

Community groups
Business
Government/Ministry
www.scienceshops.org

Internat. journal: Living Knowledge
International electronic newsletter
Research projects
Networking

Living Knowledge
The International Science Shop Network
**NGO needs identified in the EU financed project INTERACTS (2002-2004)**

<table>
<thead>
<tr>
<th>NGO/community initiated projects:</th>
<th>Number of cases (field of case)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of knowledge process wanted</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Scientific documentation of problem to convince authorities about the need for action | DK: 1 (environmental problem)  
  Germany: 1 (infrastructure project)  
  Romania: 1 (environmental problems) |
| Enhancement of knowledge around a topic as part of NGO activity | DK: 1 (bicyclism)  
  Romania: 1 (bio-diversity) |
| Facilitating or improving networking among organisations | Romania: 1 (contributing to networking among NGOs) |
| Access to knowledge from governmental organisations/institutions | Romania: 1 (environmental problems)  
  Austria: 1 (social services for people) |
| Development of solutions to a problem | DK: 1 (storage of organic food)  
  Spain: 2 (development of green plan for city and housing for minority group) |
| Evaluation of NGO or community service and project | Austria: 3 (social services)  
  UK: 2 (social services)  
  Austria: 1 (research project about living conditions in local area) |
| NGO wanting to develop own services | Austria: 1 (social conditions for youth)  
  UK: 1 (social services) |
## Science Shop initiated projects in the EU financed project INTERACTS

<table>
<thead>
<tr>
<th>Researcher/Science Shop initiated projects: Type of knowledge production</th>
<th>Number of cases (field of case)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific analysis of a problem about the need for action in order to establish dialogue with authorities or companies</td>
<td>Spain: One case about a specific air pollution problem and its impact (incineration of carcasses).</td>
</tr>
<tr>
<td>Facilitating networking among organisations and between them and others</td>
<td>Germany: One case which dealt with facilitating networking and communication between NGOs, and developing communication tools.</td>
</tr>
<tr>
<td>Developing NGO knowledge about funding opportunities</td>
<td>Germany: One case about seminars on how to build up a foundation and network.</td>
</tr>
</tbody>
</table>
The knowledge production in community-based research takes place in different ways

- NGOs develop knowledge themselves
- *Interactive knowledge production* between a NGO, students/researchers and a Science Shop
- *Knowledge supply*, where researchers or students produce new knowledge, which is transferred to the NGO
- *Knowledge transfer* to NGOs, where existing knowledge is transferred to an NGO by the science shop
**NGOs have some expectations, when they approach a Science Shop**

- Research that provides information which can support strategies for changed practice
- Research methods which are simple, so they can be transferred throughout the organisation
- Access to free or affordable research
- Access to independent and sometimes impartial research
Contribution to capacity building in NGOs: Enhancing the capacity for changing future practice (1)

- Provision or mediation of knowledge and relevant contacts
- Support for building networks, e.g. by bringing people together
- Provision of organisational frames and experts for workshops and other events
- NGOs learn to apply methods or theories used by the researchers or the students.
Contribution to capacity building in NGOs: Enhancing the capacity for changing future practice (2)

- NGOs empowered to analyse societal conditions and maybe promote results
- NGOs bring forward the scientific research and its results in order to raise public debate about the topic
- In some cases … a scientific report is not enough to convince authorities etc. about the need to deal with a problem
The contribution of science shops to the role and the tasks of the universities

• …to the competencies of the involved students and thereby the competencies of the future professionals

• …to the learning and research methods at the universities by making teaching and research more participatory and problem-based

• …to new research and teaching themes at the universities

• …to the strategic societal role of the universities ("orientation towards society")
Co-operation between NGOs, Science Shops and universities as part of research development (1)

- Science shops as *antenna* and *repository* about new problems and needs (many science shops)
- Science shops as *facilitator* btw. NGOs, university and other external stakeholders (DTU)
- Science shop as *incubator* for new research area (DTU)
- Science shop as *centre* for community based research and learning (Loyola Univ., US)
Community-based research - some personal experience since 1981

• Together with consumers and retail shop staff: Development of strategies for local food supply
• Together with trade union: Development of strategies for good working conditions in the meat industry
• Together with consumer organisations, environmental organisations, organic food organisations and related businesses: Development of the organic food production in Denmark
Science shop as incubator: the embedding of organic food production research area DTU

<table>
<thead>
<tr>
<th>Period</th>
<th>Development in societal discourse related to organic food production</th>
<th>The activities undertaken by the science shop and the affiliated community research centre</th>
<th>The interests of the ‘established’ researchers at the university</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985 - 1990</td>
<td>- Organic agriculture starts growing on the initiative of city people moving into the countryside.</td>
<td>- The science shop receives questions from organic agriculture organisation. Projects done as student projects.</td>
<td>- Food researchers and environmental researchers as supervisors on science shop projects done by students.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990 - 1998</td>
<td>- Organic agriculture grows faster due to problems with pesticides in ground water. Conventional farmers start to convert to organic agriculture in bigger numbers.</td>
<td>- Research capacity on food processing has to be found outside the university due to the lack of interest from the food researchers at the university.</td>
<td>- Food researchers invite science shop researcher to give lectures at food technology course.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Food researchers do not want to participate in research project on organic food processing since they were not lacking resources.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998 -</td>
<td>- The number of processed organic food products increase.</td>
<td>- Apply for funding from the national food research programme. Invites food researchers to co-operate. Suggests consumer organisation to plan research project on consumer policy.</td>
<td>- Food researchers agree to co-operate with organic food research group on project on care in food processing. Interest due to growing societal importance of organic agriculture.</td>
</tr>
</tbody>
</table>
# Science shop as facilitator of new research area: the embedding of re-use of rain water at DTU

<table>
<thead>
<tr>
<th>Period</th>
<th>Development in societal discourse related to green water management</th>
<th>The activities undertaken by the science shop and the affiliated community research centre</th>
<th>The interests of the 'established' researchers at the university</th>
</tr>
</thead>
</table>
- Focus on reuse of rainwater.  
- The science shop receives questions. Projects done as student projects. | - Teacher finds science shop projects time saving and interesting. |
| 1990 - | - Debate on the reuse of rainwater.  
- Stakeholders participate in seminars.  
- EPA starts projects on reuse of rainwater and local wastewater management. | - Science shop decides to try to embed activities on 'green water management'.  
- Proposes two departments to organise seminars together with science shop. |
|          | - Teacher proposes new project themes – from a more critical angle.  
- Departments get research projects. | |


Co-operation between NGOs, Science Shops and universities as part of research development (2)

- Research departments take up participatory research methods through interaction with science shop (Medicine Sc Sh, Groningen NL)
- Research departments take up community based research themes based on
  - Researchers personal interest
  - Joint funding with science shop (Tilburg, NL: Ph.D. grants)
  - Government funding (Canada: research council finances Community-University Research Alliances)
Barriers to university co-operation with civil society through Science Shops (1)

• Researchers are under a constant time pressure: research has to lead to publications, and teaching obligations has to be fulfilled => need for tangible incentives

• Most of the Science Shop projects contribute “only” to “grey” literature

• Projects might be seen as based on a practical problem rather than on a scientific problem => no scientific interest in the projects
Barriers to university co-operation with civil society through Science Shops (2)

- Universities are more interested in “big projects” with a high amount of external funding and co-operation with companies and governmental institutions => smaller NGO-related projects not attractive
Conclusions concerning community-based research - based on the INTERACTS project (1)

• Science Shops: a model for co-operation with NGOs, which can contribute to
  – a more democratic societal development
  – the competencies of the future professionals
  – the research agenda and methodologies

• Existing science shops not able to make themselves visible enough => need for more stable economic situation through basic funding

• Need for more wide-spread establishment of science shops => the possible strategic role of science shops need to be more known by research staff and management and governmental and EU planners
Recommendations concerning community-based research - to universities (2)

• Co-operation with citizens and NGOs should be incorporated into the institutional policies and profiles for research and curricula at universities:
  – Establishing formal channels for this co-operation, including dialogue about future curricula and research
  – Integrating this co-operation into the curricula
  – Including this co-operation in the staff tenure criteria
  – Making part of the local research funding available for this co-operation
Recommendations concerning community-based research - to governments (3)

- Encourage universities to establish community-based research and learning
- (Co-)finance community-based research and learning, including the establishment of formal mediation channels
- Invite NGOs to influence the needs, planning and implementation of public and private projects, programmes etc.
Recommendations concerning community-based research - to NGOs

4

• NGOs should seek formal as well as informal ways and channels for influence on public and private projects, programmes etc.
Upcoming international conference…we welcome sessions and presentations

Second International conference Living Knowledge “Advancing Science and Society Interactions”
Sevilla (Spain) 3 - 5 February 2005
Conference themes

• The impact of communities on the research and policy agenda
• Citizen participation in research and policy making
• Development of infrastructures for mediation and communication of community based research
• Local and global demands for access to research, science, education and technology