Participation of Civil Society Organisations in Research

S T A C S

Science, Technology And Civil Society

- 2009 -

We have entered into a period when all we know about knowledge will be changed. We are told to make choices about the world we want. How we view the construction of knowledge, the relationship of knowing to learning, the rights of all peoples to construct their worlds will shape our choice regardless of what we say. We have an obligation and a responsibility to continue to peel back the layers of confusion and certainty not only for the next few years but for the rest of our lives.

Budd L. Hall
In From the Cold? Reflections on Participatory Research From 1970 - 2005

Participation
of Civil Society Organisations
in Research

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Context

The present report is the result of a work conducted by civil society organisations within the framework of the European project STACS.

Science, Technology and Civil Society - Civil Society Organisations, Actors in the European System of Research and Innovation (STACS) was a capacity building project funded by the EU 6th Research Framework Programme, as part of the Science in Society activities aimed at stimulating participation of civil society organisations (CSOs) in research activities. Part of the Specific programme Structuring the European Research Area, the pilot call aimed at Increasing the societal relevance of research.

The call underlined that "*Civil society organisations show an increasing interest in research activities in domains such as sustainable development, food safety, public health and well-being, renewable energy, discriminations, and conflict resolutions. [...] They can also be sources of knowledge, know-how and innovations, and therefore act as partners in research. [...] The potential of civil society organisations to enrich the research domain remains mostly untapped.*"

The objective of this exploratory call was therefore "*to provide support to civil society organisations: to identify and discuss topics and opportunities for involvement in research activities, or for outsourcing research to research performers; and to explore the possible forms of cooperation with research centres and other research stakeholders in view of more comprehensive actions in the future Framework Programme.*"

STACS was conducted by six European CSOs: Fondation Sciences Citoyennes (FSC, France), Institut Mensch, Ethik, Wissenschaft (IMEW, Germany), European Public Health Alliance (EPHA, Belgium), Réseau Semences Paysannes (RSP, France), Free Software Foundation Europe (FSFE, Sweden, Germany), Demos (UK). The main objective of STACS was "*to explore the feasibility of future academia-civil society partnerships in different research areas and how to optimise the interaction between science dynamics and the needs and concerns of society*". For this purpose, the partners organised capacity building sessions for CSOs on selected scientific issues of high societal relevance, explored the possibilities of drafting common research projects between CSOs and public research laboratories by organising "*research project nursery workshops*", analysed participatory research experiences in Canada and France and formulated recommendations to the European Commission, published a booklet on "*Citizen scientists - reconnecting science with civil society*", and redacted a handbook for CSOs aimed at improving the understanding of CSOs of the European research system.

Partners

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Summary

Executive Summary

This report on *Participation of Civil Society Organisations in Research* attempts to analyse the benefits and limits of two innovative mechanisms that allow and fund research partnerships between researchers and CSOs : the Community-University Research Alliance (CURA) programme, set up in 1999 by the federal government of Canada, and its more modest French version in the Ile-de-France region since 2005, the Partnerships of Institutions and Citizens for Research and Innovation (PICRI) programme. Drawing on the experience of actors involved in the set up of these programmes and in research partnerships funded through these two mechanisms, we have attempted to outline the benefits of and the obstacles to Participatory Research, and to identify key principles that can ensure that such partnerships bear their most fruitful outcome. The last part proposes more practical recommendations to a range of actors of the European research system - in policy circles as well as in the scientific and CSO worlds- on how to strengthen and improve support to Participatory Research in the European Union.

Part I. A new context of knowledge production

A. New approaches and trends in research

Knowledge production in conventional research is both discipline-based, evaluated by publications, and increasingly shaped by an industrial logic, to the extent that science has come to be seen mainly as a purveyor of technological innovation and increased competitiveness on a globalized market, as illustrated by the Lisbon agenda. As a consequence technological innovation is often framed as "one way" progress, and there is not much consideration about the direction of such progress. Different technological choices can have different impacts on society, but the implicit assumptions that frame these choices, and their social implications, are rarely evaluated and discussed. This narrow framing of the role of research and this focus on new technologies often leads to a piecemeal approach in the design of research agendas, inadequate for tackling the multi-dimensional challenge of moving our societies towards Sustainable Development. This perceived lack of relevance of a linear model of research focused on competitiveness in addressing the ecological, economic and social crisis in an integrated way has fostered the emergence of problem-based approaches, that emphasize trans-disciplinarity and that see knowledge not only as a product, but also as a process.

B. Participatory Research

Terms like "Participatory" or "Community-Based" Research refer to research conducted in partnership between traditionally trained experts, usually academics, and members of a "community" or CSOs. The degree of involvement of the CSO partners at the different stages of the research process (problem definition/issue selection, research design, conducting research, collecting data, interpreting the results, determining how the results should be disseminated and used for action) can vary according to their nature, their capacity and to the purpose of the research project. The diversity of the models reflects the diversity of possible partners (local communities, ethnic groups, practitioners, CSOs dedicated to a particular purpose). CSO-researchers partnerships, and the infrastructure and incentives put in place to encourage them, can operate at local, regional, national or international levels. Initiated in social sciences and in the health sector, participatory approaches are increasingly used in sectors where natural sciences have a more prominent place, such as environmental sciences or agriculture. Although Europe played a pioneering role in the 1970s in linking researchers with CSOs thanks to Science Shops established in Dutch universities, it is nowadays in Canada, the USA, India, and several African countries that Participatory Research seems to be the most strongly established.

C. A growing support to participatory research in the EU

The adoption of the "Science and Society" Action plan in 2001 marked the political recognition of the need for the EU to better involve civil society in research policy and research projects. Despite a relatively modest budget (The 7th Research Framework Programme – FP7 - dedicates 330 million euros to Science in Society activities, more than FP6 but still less than 1% of the total FP7 budget that is of around 53 200 million euros for the 2007-2013 period), this programme has enabled the debate to move from "risk governance" to "innovation governance" and to the acknowledgement that the way forward therefore lies in "upstream engagement", i.e. in involving civil society at the earliest stage in the process of research or science-informed policy-making, and that taking into account a diversity of knowledges and experiences will inform more robust long term choices in research and policy. Promising initiatives, such as "Social Platforms" in the Social Sciences and Humanities Programme, have recently been taken to involve CSOs in the

identification of research needs and in the elaboration of research agendas. The Science in Society Programme has taken several initiatives to involve CSOs in research projects, the most recent of which being the creation of a new funding scheme for FP7, the Benefit for Specific Groups-CSO financial instrument (BSG-CSO). This groundbreaking instrument, that allows the participation of CSOs in research projects, has been used in four Work Programmes for now (Environment, Social Sciences and the Humanities, Science in Society, Transport) and has attracted a considerable interest on the side of academics and CSOs. This instrument has a great potential to support across Europe the development of research more relevant to the diverse concerns of society, and its use in FP7 should be mainstreamed.

Part II. Participatory Research in Canada

A. Overview

Canada, similar to many European countries in the way the research system is structured and funded, is also the OECD country where participatory-type research enjoys the widest recognition and the strongest support from both the government and universities. The creation of a dedicated funding structure at the federal level in 1999, the "Community University Research Alliance" (CURA), was a landmark, which has attracted worldwide interest and continues to inspire similar initiatives around the world. In policy terms, the overarching concept that supports the development of partnerships in research is "Knowledge Mobilization", which is based on two core principles: the idea that valid knowledge is produced by many actors outside universities and research centres, and that it is necessary to tap into this knowledge produced by different sectors of society to face the current challenges; and the idea that research should aim at producing results that are relevant beyond intrinsic academic interest, that contribute to better policy-making and bring benefits beyond the economy field, benefits that are not easily assessed in monetary terms, or through simple indicators.

B. Two case studies of support structures to Community-Based Research in Canadian Universities

More and more universities across Canada include "service to community" in their mission and set up infrastructures dedicated to partnerships between researchers and civil society. Two of such successful mechanisms, the Community Services

programme at the "Université du Québec à Montréal" (UQAM), and the Office of Community-Based Research at the University of Victoria (British Colombia) are examined in details in the report. They highlight the importance of dedicated staff and support structures to bridge the worlds of CSOs and of researchers.

C. The Community-University Research Alliances (CURAs) programme

Nearly 100 CURAs have been launched since 1999 by the Social Sciences and Humanities Research Council of Canada (SSHRC). Created with the explicit goal to help Canadian communities to cope with the effects of globalization, the specific objectives of CURAs are to: promote sharing of knowledge, resources and expertise between post-secondary institutions and organizations in the community; enrich research, teaching methods and curricula in post-secondary institutions; reinforce community decision-making and problem-solving capacity; and enhance students' education and employability by means of diverse opportunities to build their knowledge, expertise and work skills through hands-on research and related experience. A CURA is based on the principle of an equal partnership between organizations from the community and one or more post-secondary institutions, and provides co-ordination and core support for planning and carrying out diversified research activities that reflect the CURA programme objectives and that are centered on themes of mutual importance to the partners.

Unlike other strategic programmes, where the research question has to be negotiated with the granting council, in CURAs the project partners are free to jointly define their research activities as well as the participatory arrangements under which individual researchers and research teams will carry out those activities. The researchers have to demonstrate their ability to involve community organisations. The community organisations have to show their capacity to use the results. The partners are invited to continuously develop and refine the research activities and, in addition to strengthening the original alliance, where necessary, also to recruit new partners during the period of the grant.

Submitted proposals go through a two-stage application process. SSHRC receives around 130 letters of intent every year, which briefly describe the project. 20 to 30 projects are usually selected

at this stage. Applicants successful at the letter of intent stage are eligible for a development grant of up to 20,000 Canadian dollars. Partners then have 4 months to jointly elaborate the research questions and to submit a detailed proposal. The robustness of the methodology proposed, the capacity of the researcher to involve communities, and the plans to disseminate results beyond conventional channels are taken into account.

On average each CURA receives 1 million Canadian dollars from SSHRC over 5 years, and most CURAs manage to double this amount by collecting extra funds from private foundations and ministries. The relatively high amount of money granted by SSHRC for 5 years is important as it allows the setting up of an infrastructure, (mostly human resources) for the support and co-ordination of the research teams and for carrying out some of the research activities. The infrastructure provides administrative support all along the process, helps identify the right partners, the needs and issues to be addressed, and to bridge the gap between the "two worlds" of communities and researchers.

Evaluation reports note that CURAs are innovative -> groundbreaking and dynamic, and that the different projects have allowed to organise and implement complex and innovative research programmes, in line with their initial vision. CURAs have created a favourable context for the improvement of capacity and decisional processes of communities, and for their capacity to influence social and cultural policies.

Part III - Partnerships of Institutions and Citizens for Research and Innovation (PICRI)

In 2005, a programme similar to CURAs was created for the first time in Europe. After studying the experience of CURAs and following the same principles, the regional government of Ile-de-France (Paris and suburbs) launched a call for Partnerships of Institutions and Citizens for Research and Innovations (PICRIs). Around 1.5% of the yearly regional budget for research and innovation count for this programme. The high number of projects submitted (176 in four years) was a surprise for the regional government, as well as the diversity of proposed issues, ranging from information technologies, environment, health, migration, discrimination, music, art to social questions, social economy, governance, ethics, and rights.

Part IV. Benefits, barriers and key principles for Participatory Research

This part is based on interviews of academics involved in CURA projects, of persons in charge of the infrastructure on the side of the community, of civil servants in charge of the CURA programme, as well as other key persons. It also draws on other programmes than CURAs in Canada and on the evaluation of other Participatory Research experiences found in the literature.

A. The benefits of Participatory Research

Participatory Research has become a popular new research paradigm. It is increasingly being recognized as important in yielding concrete knowledge and understanding that can guide changes - in research, in CSOs, in policies. A general aspect is the high productivity of such projects, both in terms of concrete outputs (deliverables), and in terms of less tangible outcomes (e.g. empowerment of communities). By the variety of the outcomes, and their relevance for different partners, Participatory Research is deemed "highly productive", "cost-efficient" and "good value for money".

Benefits in terms of knowledge production

Participatory Research projects have benefits in terms of knowledge production (including the publication of peer-reviewed articles). The value of projects can often appear at the early stages when community partners and universities co-define and scope the research questions. Such partnerships can even cover fields that would otherwise be closed to researchers. They allow them to work on emerging issues, and give them access to data that would otherwise be unavailable. CSOs are a valuable resource not only in terms of providing data, concrete cases, financial and human resources, but also in terms of practical know-how or even theoretical knowledge, as well as in the formulation of research hypotheses. Their feedback on results at different stages of the research can help researchers adjust and recast the way the results are formulated, reflect aspects that they may have missed, thus enhancing the validity of the results.

The problem-based approach which lies at the heart of CURAs and other Participatory Research projects is a drive towards trans-disciplinarity, and towards more relevance of research to problems and needs of people. It is particularly adequate to understanding the links between the different dimensions of Sustainable Development, and to hel-

ping communities move towards sustainability.

Benefits for CSOs and communities

On the other hand, universities provide CSOs with access to wide-ranging and in-depth knowledge and national and international expertise that informs and addresses community or transversal challenges and opportunities in a meaningful way. Participatory Research projects can contribute to increase CSO or community capacity, to increase their reflexivity and improve their practices. Results can also lead to changes in public authorities programmes, thus accounting for the improvement of living conditions of communities (e.g. economic, social and ecological conditions).

Impact on policy-making

Policy-making is the outcome of a highly complex process, for which it is notoriously difficult to assess the impact of a given factor on it. The extent to which research actually contributes to policy-making is a controversial issue in itself, let alone a given research project. A number of Community-Based Research endeavours strive to have a direct impact on policy as an outcome. Some Participatory Research models are partly dedicated to answering research needs of policy-makers, or develop innovative models in which research needs and questions are jointly determined by policy-makers and CSOs. Others do involve policy-makers from the start in the definition of research topics, which lead to results more likely to have an impact on policies.

As more and more emphasis is put on concepts like "evidence-based policy-making", research is supposed to become a source for policy-makers even more than before. The improvement of the relevance and of the validity of the research created is a pre-condition for better informed policy-making. Research agendas – and the narratives that underpin them - should reflect the diversity of interests and needs in society. In this respect, the value of such partnerships is that they can make policy alternatives visible and challenge existing norms, broadening perspectives beyond technological approaches. Research partnerships can also help make visible and explore alternative future scenarios (for instance on the use of natural resources). Research partnerships can also contribute to research agenda setting by opening up new research and innovation paths. They encourage diversity in science, which is a key asset. The contribution of research partnerships to research agenda setting is greater with long-term partnerships.

A better evaluation of the benefits of Participatory Research is a condition for its further development, and is now a focus of attention among practitioners and funders. It is difficult to evaluate qualitative benefits through quantitative indicators, which are not adapted to complex processes, and which will always overlook the transformative effects of participatory research experiences on people, be they researchers, practitioners, or CSO workers. Successful partnerships entail, through unavoidable conflicts, the recognition of the other's referential, and the displacement of one's own epistemic referential (be it based on academia or practice). It is an experience that renders people able to move from one referential to the other. Beyond the negotiation of different interests, partnerships open a space for mutualisation and inter-subjectivity. At their best they appear as a process of collective production that goes with an individual and collective learning enabling different actors to acquire knew knowledge, to develop new behaviours and a new understanding of their environment.

B. Key conditions for successful Participatory Research projects

Public support

The support of government has been crucial for the development of the field of Participatory Research, and highlights the key role of research policy-makers. The support of the Canadian government and its granting agencies attracted researchers and legitimized this type of work in the eyes of research institutions, provided funding, and enabled the establishment of dedicated infrastructures. The success of programmes like CURAs is an indicator that government support of community-university partnerships and more generally of science and society interactions produces significant social and economic value that is currently left unrealized by traditional research modalities.

The institutionalization of community based research thanks to government intervention has also increased its "legitimacy" in the eyes of sometimes reluctant research institutions. It has become easier for researchers to justify their engagement in such projects towards their institutions. Given the significant barriers that still exist in the academic world to Participatory Research, this is an important aspect. Realizing the full social and economic value of this new research paradigm is not only a matter of providing funding and setting up innovative

programmes. Governments and research policy-makers, in close relation with the scientific community, have a crucial role to play in altering the environment that supports the research process. If participatory mechanisms are not to remain marginal, attention needs to be paid to the structural elements and trends of research.

Project duration and funding are key factors influencing the quantity of outputs and less tangible outcomes. The scarcity of funding for Participatory Research is the main barrier, and we recommend that at least 5% research funds be dedicated to research partnerships with CSOs.

Supporting structures and facilitators

On a more practical level, there is first of all a need for structures and facilitators. Services such as offices of community-based research ensure a long-term commitment of research institutions and CSOs, which is one of the key conditions for the full realization of the potential of Participatory Research. Without these supporting structures, substantial value goes undeveloped, underdeveloped or lost. Dedicated structures with dedicated staff provide an access point to CSOs, act as brokers and facilitators all along the research process, and provide administrative support. They identify appropriate academic resources, help shape needs into research questions, ensures that the two different worlds of researchers and CSOs understand and benefit from one another, and are a place to gather, "store" and share experience on Participatory Research.

The importance of a robustly designed partnership

The areas of research and of CSO work are two different worlds, which have rarely interacted with each other. Working together implies bridging the gap between these two cultures, and developing a relationship of trust. The initial stage of a partnership research project is a crucial one and should not be rushed. It should result in the construction of a precise research object and in the adoption of a clear research proposal with which both sides are comfortable. It is needed to dedicate funding and to take all the time necessary at the outset to train CSOs to research methodology, to clarify the objectives, the purpose of the research, the stages of the project, the modus operandi, and the respective roles, and responsibilities of the partners. The dissemination and transfer phase should also be paid attention to. It has been identified as one of the weak points of most CURAs, and there exists a

great potential for improvement. Ideally the CURA model should be "enlarged" to include another mechanism dedicated to facilitating and supporting this part of the process, in the same way that it provides an infrastructure that helps partners in the design of the project, and all along the research.

C. Obstacles and ways forward

Most obstacles against the development of participatory research are structural : they are linked to the way the scientific community organises and perceives itself, and to current trends affecting the research environment. Some new policies, mechanisms and tools can address some of these barriers, and in general contribute to a better engagement of civil society in research policy, but only to a certain extent.

Dedicate more consistent funding to Participatory Research

The scarcity of funding available for Participatory Research is a first major barrier. Dedicating 5% of research funds to Participatory Research would create more opportunities and would better reflect in political and institutional terms the popularity that such programmes enjoy. Funding should also be available for the preparation of projects, for initiating partnerships, as well as for the dissemination and implementation phase of the results.

Create opportunities and incentives for scientists

Scientific activity has become very competitive. There is a high pressure to publish, but also to produce results that can be valorised in economic terms. It takes time to get involved in research partnerships with CSOs or other "science and society" activities, and scientists lack clear incentives to engage.

There is a need for a more open and appropriate reward structure for scientists. Mainly in the field of natural sciences, but increasingly in social sciences as well, scientists are solely evaluated according to their number of publications in "high impact factor" scientific journals. Any form of public engagement, even their compulsory teaching activities sometimes, are not valued, and can even be a problem sometimes. Scientists need incentives, or at least they need not to be hindered in their careers by biased reward systems. Research produces various types of outputs which should also be included in the evaluation process of research organisations

and individual researchers. The engagement on exchanges based on reciprocity and services to the community (to public authorities or non-profit civil society) should be taken into account in the career advancement of scientists. It could take the form of peer-reviewing other professional activities than publications, subjecting an expanded range of professional products and activities to evaluation by targeted users of these materials (e.g. published academic materials, government reports, reports to communities, publications for users, etc.) or utilizing an expanded range of reviewers of the quality, significance, and impact of researchers' work from targeted users (academic peers, government officials, NGOs officers...).

Other factors also play a limiting role. The fact that traditional peer-review journals demonstrate little openness to forms of research which are considered as "unconventional" is another symptom of barriers embodied in the science culture itself. Participatory Research still suffers from a perceived "lack of rigour" in certain scientific circles.

In practice scientists do not have many opportunities to engage with society, and those who do so can even face problems with their institutions. The lack of institutional support is often quoted as a major barrier for scientists who want to work with communities and CSOs. Institutional mechanisms need to make some room for such exchanges and partnerships, and to publicly acknowledge their value.

Strengthen CSOs interest in research

It is not only scientists who need to experience a shift in their culture, but CSOs as well. Getting engaged in research can be strategic for some CSOs but few do so for the moment. Numerous NGOs do not consider research policy as a target, even though they may spend a lot of their time and energy addressing issues directly linked to research and research policy decisions made years ago. For CSOs, getting engaged in research also means to take the time and to make the effort to identify the needs of their sector and to build their own research agenda. In practice, even though many CSOs have a solid expertise on a given issue, few feel legitimate to intervene on research agendas, or able to do so given their limited resources, and their goals. Participatory research projects have actually proven useful in helping CSOs clearly defining the needs of a sector, and translating these needs into research questions. Integrating research in their activity can also help CSOs to develop a reflexive process and

to improve their practices.

Link to policy change

The contribution of Participatory Research projects to policy-making on the one hand, and the participation of civil society and citizens in research policy (the "governance" debate) are not separated issues. Though the scales and mechanisms are different, the tools available must be seen as part of a continuum, that goes from attempts at better informing policy-makers of civil society's realities, needs and priorities, to finding new ways in which civil society directly participates to policy-making. To a certain extent, it can be seen as a matter of "scaling-up".

Much more than now, decisions should be based on plural and diverse sources, which take into account the views of different actors. It is not a question of choosing between "science" or taking into account the views of civil society. Participatory processes should not be separated from the policy processes. That is why CSOs should be involved from the start of the policy process, in the definition of problems and in their framing. Launching Participatory Research projects on policy-relevant themes, with the active involvement of policy-makers, is a potential solution. One of the ways forward is to ensure that the knowledge and expertise of civil society contributes to the expertise on which policy-makers base their decisions, and which should be plural.

Participatory processes should not distract attention from a serious and challenging examination of the everyday role of scientific advice in the Commission and in Member States. Exercises on "risk communication" and public participation should not ignore structural political and economic issues that underlie public concerns about both the governance of science and technology and the role of science and technology in governance. This calls for the setting of procedures of expertise that are transparent, pluralistic and contradictory. Here as well the Canadian experience can be inspiring. There are more and more attempts to associate both policy-makers and civil society, together with researchers, in the definition of research needs, and research questions.

Part V. Recommendations

How can the EU improve its support to research partnerships between CSOs and researchers, in the light of the CURAs 10 years of experience, and of its

French regional counterpart, PICRI ? We will highlight a few key principles for EU, but also national, regional and local policy-makers, university managers, research institutions, scientists and CSOs to keep in mind, before proposing more concrete recommendations.

A. Key principles to improve the support to Participatory Research

Acknowledge the value of CSO participation to research

Participatory Research has value in different aspects. It can help solve concrete problems by putting research at the service of CSOs and local communities. On the other hand CSO participation to projects can also help researchers moving forward in our understanding of complex real world situations, of the multi-dimensional (economic, social, environmental) challenge of Sustainable Development, and in developing integrated solutions. It allows the identification of research gaps and to address issues neglected by mainstream research. Participatory Research leads to adopting a problem-based and trans-disciplinary approach. It allows to tap into other forms of knowledge and can open new innovation paths.

Make space for alternative narratives of research

For now the societal relevance of research is mostly framed in narrow terms of competitiveness and economic growth, and a lot of research is focused on technological innovation. Research is often portrayed as a race, for which the only alternative is to go faster or slower, but with no choice over direction. But scientific and technological choices are shaped by the social and economic context, by values and vested interests. In a democratic society, acknowledging that science and technologies involve politics means that new and alternative narratives should be recognised institutionally and politically. Taking the concept of "Knowledge Society" seriously involves making it a more inclusive concept by acknowledging the legitimacy and valuing the relevance for policy-making and for scientific research of the knowledge of all sectors of society, not only the knowledge located in universities and businesses. Interactions generate new forms of social intelligence and create mutual benefits.

More opportunities to engage

There are still few mechanisms allowing and funding research partnerships between CSOs and research institutions. Therefore, there are still few opportunities for CSOs to engage in research, and for scientists to engage in research partnerships with civil society, both at the EU and national levels. The availability of funding is both the key driver and the main barrier to CSO engagement in research. The existing experiences have been successful and have attracted considerable interest. There is a need to dedicate more support and more funding to such mechanisms, and to ensure a proper information about these opportunities, both towards CSOs and researchers.

Reward public engagement of scientists

The lack of high level institutional support is a barrier for scientists who are interested in engaging society. Universities and research institutions should be encouraged to integrate public engagement and service to the community in their mandate and in their programmes. The evaluation of scientists should also be conducted on a larger basis than solely on their contribution to their discipline and their publications. It takes time and commitment to get involved in research partnerships, and this contribution should be rewarded rather than punished.

A diversity of forms of engagement and a more inclusive governance of research

The role of the CSO partner can vary according to its capacity, to its needs or to the purpose of the research project. It may end after the framing of the research question, it may start with the dissemination of the results, CSO partners can be involved in the research process itself, from the collection of data to the interpretation of the results. In this respect there is no clear-cut distinction between the participation of CSOs in research projects, their inclusion in the governance of research and their contribution to agenda setting.

Create long-term relationships and places for meetings

Experience shows the importance of the existence of relationships anterior to the construction of a research partnership, so as to enable the groups involved to go beyond the primary representations they have of one another. But there are few places where such relationships can emerge, there are few spaces for dialogue and few opportunities for CSOs and researchers to meet. There is a lack of knowledge brokers, who could operate this important matchmaking activity. It is crucial to have spaces and opportunities for mutual learning to take place, for partnerships to emerge, but also for

the expression of conflicts and tensions, that are a condition for learning.

The importance of robustly designed partnerships

There is a need for flexibility in the identification of the research needs and, as much as possible, to allow CSOs to work on the needs they have identified rather than having to try and fit into calls for projects too narrowly framed. Then the problematisation phase is a crucial stage of a research project, and it is important to devote the necessary time to this design stage.

Create supporting structures

The most crucial point identified in the CURA system and other mechanisms in Canada, and the most striking difference with the BSG-CSO instrument, is the existence of an "infrastructure" that allows the funding of "knowledge brokers" or "facilitators", who provide support to both researchers and CSOs, help them resolve conflicts and navigate their ways through the partnership and the research process. These structures have a number of advantages and fulfil a diversity of roles. They provide support to partners all along the process, but they also act in the first place as "brokering" structures, that can help CSOs find the right academic partner, and vice-versa. They can also act as organizers of meetings between the research community, CSOs and policy-makers, as facilitators for the building of long-term relationships, for the building of trust and mutual understanding between two different communities. Permanent structures ensure that the experience on and lessons about Participatory Research do not get lost. They can also alleviate the heavy administrative burden that the involvement in research partnerships represents for CSOs, especially for the smaller ones.

B. Recommendations

1. To the European Commission

a) Research Framework Programmes

Increased support to Participatory Research

The EU support to developing partnerships between scientists and CSOs in research and to capacity-building through its "Science in Society" activities has been crucial both in practical and symbolic terms. It should be strengthened and valorised by the Commission. The Commission could gradually open up to 5 % of yearly FP budgets to research in partnership with CSOs, notably in the-

matic priorities such as health, environment, transport, energy or agriculture.

Mainstreaming the use of the BSO-CSO instrument

Participatory Research is not only relevant to the "Science in Society" programme. It would be important to ensure that DG Research staff in all Directorates are aware of the potential benefits of Participatory Research and of the use of existing support mechanisms. Capacity building and training are necessary at different levels and for all involved actors – Commission and National Contact Points staff, CSOs, researchers, and policy makers.

Leave calls for projects open

Participatory research calls for projects should be as open as possible, so as to allow the partners to identify themselves what are the most crucial problems they have to face, and to design together projects which are based on their real needs, rather than to try and fit their concerns into too narrowly framed calls for projects. The wording of the topics in the annual Work Programmes could be better adapted to research in partnerships, and take more into account the potential added value of taping into the diversity of knowledge, and of CSO engagement. It would make it easier both to integrate the BSO-CSO funding scheme, and easier for CSOs to propose projects. Mapping CSOs research needs could continue to be the purpose of some EU research projects.

Adapting the BSG-CSO to the needs of CSOs

The BSG-CSO scheme, in its present form, presents certain limits. Training and Outreach Strategies correspond to a 100% funding rate, but CSOs' Research activities in a project can only benefit from a 50% funding rate. It puts a heavy financial burden on CSOs , that usually do not have the possibility to do co-financing on this type of work, as few possibilities exist for them to get funding to do research – in contrast to researchers.

National Contact Points

The network of National Contact Points, funded by Members States, is the main structure that provides guidance, practical information and assistance on all aspects of participation in FP7. The support of participatory research with non-profit civil society and thus support to both researchers and CSOs involved in common projects should be explicitly included in their mandate.

b) Research policy

Advisory boards

CSOs should be offered more opportunities to participate in committees that advise on research policy. All FP7 advisory boards should be open to members of CSOs.

Mapping CSO research needs and agendas

Design a process to map and identify the research needs of civil society, both at the micro and macro levels. At the EU level, forums or platforms gathering CSOs, policy-makers and scientists could be set up on a thematic basis to identify research needs, shape them into research questions, and design research agendas. Rather than the result of a one-off formal process, the involvement of CSOs in research governance could thus take the shape of permanent thematic forums with meetings on a regular basis. Such forums could provide a place to meet and help emerge long term partnerships, where research needs and relevant research questions are identified, both for policy-makers and civil society. The Social Platforms recently created in the field of Social Sciences and Humanities are an interesting model and should be further developed. The concept (gathering CSOs and researchers with the purpose of designing research agendas on a given theme or issue) could be extended to other areas (Environment, Food and Agriculture...)

Encouraging the professional mobility of researchers to CSOs

The professional mobility of researchers from public research institutions to the non-profit sector should be supported, for instance through Ph.D. and postdoctoral grants. Individual fellowships for senior researchers who wish to engage in research projects with CSOs would also support this mobility. Marie-Curie-like-actions could be envisaged.

Communicating and raising CSO awareness about research opportunities

Another practical challenge is the transmission of information about existing opportunities to the CSO and research communities. There is a need for awareness raising on both sides, and to ensure the flow of information. Since there exist already multiple communication channels from the Commission to researchers, these could be used to inform the latter, whereas effective communication channels towards CSOs have certainly to be invented. Information should also be provided to EU and national research policy-makers to raise their awareness and make them familiar with the

concept of Participatory Research and its benefits, with outcomes of European participatory projects, and with the funding scheme BSG-CSO. The Commission could play a role in encouraging national and regional governments, universities as well as foundations, to fund such partnerships as well as dedicated support structures.

c) Engaging Universities and Research institutions

Besides research and education, service to community and civil society should be included in the mandate of universities. The EU could support this mission of universities by helping them build relevant tools and appropriate processes to respond to local demands or to demands of general interest carried by CSOs. The Commission could stimulate the creation within research institutions of structures that support CSO participation (knowledge brokers), for example through the use of ERANETs. The Commission could support the creation of a network of European Universities engaged in participatory research.

The reward structure and the systems of career advancement need to be adapted if we want a real two-ways dialogue to emerge. The Commission could initiate a large participatory process aimed at elaborating guidelines on how to extend the basis on which researchers are evaluated, adapt evaluation processes to the constraints of Participatory Research, and reward public engagement .

2. To Member States

The recently adopted "European Research Area Vision 2020" reaffirms that "the ERA is firmly rooted in society and responsive to its needs and ambitions in pursuit of sustainable development".

The fact that the ERA concept acknowledges that science and research should help address societal and environmental challenges (rather than merely contribute to the competitiveness of European industry) is an important development and a welcome move. Yet it remains unclear, especially in Joint Programming (Member States attempting to co-ordinate their research efforts on key topics of interest for society) what will be the process to decide on key "societal challenges" that research should help Europe to address, and on how research could contribute to solutions.

Member States should support the participation of CSOs in research and in research governance in

the construction of the ERA as well as in their national policies. They should participate in funding opportunities for Participatory Research, establishing support structures and a more inclusive governance. Participatory research should truly become a key figure in the European Research Area.

3. To Regions

The success of the PICRI experience and the interest it has arisen in other French regions confirm that regions are a key level to develop a closer relationship between civil society and research. FP7 already supports research activities at the regional level. The "Regions of Knowledge" part of FP7 aims at "strengthening the research potential of European regions, in particular by encouraging and supporting the development, across Europe, of regional "research-driven clusters" associating universities, research centres, enterprises and regional authorities". Even if civil society is missing amongst the list of "regional actors involved in research", it is not excluded and activities comprise "measures aiming at improving research networking". Regional governments could play an active role in developing participatory research, and in encouraging universities to set up participatory research offices, structures that can help the emergence of long-term relationships and support partners involved in research projects.

4. To universities and research institutions

Universities have played a determining role in the diffusion of a cultural model based on reason and right. What visions do universities transmit nowadays? Since universities should "naturally" be another key actor in promoting Participatory Research, it is important to encourage partnerships at university level. There exist already modest experiences with Science Shops, independent research structures responding to research needs of citizens and CSOs, which have been supported by FP calls since FP5.

Universities and research institutions need to give scientists more opportunities to reflect about the societal consequences of their work, and a better training on how to communicate about their choices and assumptions, and how to engage with society. Scientists need to be given incentives to engage with society. In parallel, structures dedicated to bridging the gap between researchers and CSOs should also be established. More training should be provided by universities on inter-disciplinary,

trans-disciplinary and Participatory Research, and students should have the opportunity (e.g. through validated modules or units, internships with CSOs) to engage in research partnerships with civil society.

Besides research and education, service to community and civil society should be included in the mandate of European universities. Accordingly, the reward structure and the systems of career advancement would need to be adapted.

5. To CSOs

CSOs should express their views on the kind of science they would like to see carried out and should devote resources to build their research agendas. In order to contribute to increasing the societal relevance of research, they would have to get more involved in the politics of research, and to understand better the pressures and constraints scientists and research institutions are under.

Introduction

Science, Technology and Civil Society - Civil society organisations, actors in the European system of research and innovation (STACS) is a research project funded by Framework Programme 6 Science in Society activities aimed at stimulating participation of civil society organisations (CSOs) in research activities. Part of a "CSO capacity-building" call for projects, it is conducted by six European CSOs. The main objective of STACS is "to explore the feasibility of future academia-civil society partnerships in different research areas and how to optimise the interaction between science dynamics and the needs and concerns of society".

Increasing the societal relevance of research implies numerous questions: In which cases and how can civil society be fruitfully involved in the regulation and production of scientific knowledge? How to prepare civil society organisations to participate in foresight and science policy activities and in research projects? How to get scientists interested in projects with CSOs? How to make the case to policy makers for the constructive participation of CSOs in research? How to ensure that scientists and CSOs can build common projects for Framework Programme 7 (FP7)?

As part of the STACS activities, the partners organised capacity building sessions on socially-important scientific issues to enhance the capacity of CSOs to approach scientific questions, followed by a series of workshops serving as research project "nurseries" aimed at identifying concrete research topics for cooperation between CSOs and public

research institutions and at involving CSOs in future research projects for FP7.

The present report attempts to analyse the benefits and difficulties of two innovative mechanisms that allow and fund research partnerships between scientists and CSOs. The Community-University Research Alliance (CURA) programme was set up in 1999 by the federal government of Canada and has initiated more than 100 participatory research projects so far. Inspired by this model, the government of the Ile-de-France region (the large territory surrounding Paris) decided in 2005 to experiment a similar mechanism, the Partnerships of Institutions and Citizens for Research and Innovation (PICRI) programme. Drawing on the experience of actors involved in research partnerships funded through these two mechanisms, we have attempted to outline what the European Union could do to strengthen its active support to the co-production of knowledge and to the inclusion of non-profit civil society in research, in line with the objectives of the European Research Area.

Given the rapid development of the vibrant field of participatory research in Canada, and of the scientific literature around it, we have also described other initiatives aimed at putting research at the service of communities and civil society, in the hope that they will inspire European policy-makers and university managers. Participatory research – or community-based research – can be defined as research conducted in partnership between civil society groups and academics. It seeks to democratise knowledge creation by validating multiple sources of knowledge and promoting the use of multiple methods of discovery and dissemination. The goal of participatory research is social innovation and action.

The European vision of a "Knowledge-Based Society" demands early dialogue between scientists, policy-makers and civil society. But there are strong barriers to overcome to achieve a meaningful participation of civil society in research. The "Science in Society" activities led by the European Commission since 2001 have contributed to a deeper understanding of the challenges that lay ahead, and this report builds heavily on these achievements. Beyond that, questioning openly and democratically the frames and assumptions that shape "the politics of knowledge" and elaborating a new "social contract" between science and society will take more than setting up the appropriate mechanisms for engaging civil society in research policy upstream.

There are many forms through which scientists and research institutions can engage society. For the last two decades, partnerships have mainly and increasingly taken the form of "public/private" partnerships with industry, under the impulsion of governments and businesses, with the primary goal of improving the competitiveness of our economies, and therefore contributing to job creation. This particular angle of science and society relationships is clearly illustrated by the Lisbon agenda, and continues to be reflected in the discourses of many research policy-makers.

Though States – and taxpayers – continue to be the main funders of research, this focus on competitiveness has allowed the industrial sector to enjoy a strong and increasing influence on the priorities of public research. The benefits of this focus, even in terms of job creation, are not always thoroughly evaluated, and not as clear as one could expect given the prominence of this discourse.

But it has had serious consequences on the way research is organised : scientists are more likely to obtain credits and career advancement if their work is seen as relevant by the industrial sector, and research institutions have been pushed into adopting norms and values from the corporate world, that are not necessarily compatible with their methods and objectives. What are the consequences of this situation on access to data and research material, on the circulation of knowledge, on the deontology of scientists and on the validity of research results ? Such questions are also relevant for policy makers, who use research results in the design of public policies. The construction of a "Knowledge-Based Society" should not be confused with the mere creation of a common market for knowledge.

At the dawn of the XXIst century, our societies face immense ecological, social and economic challenges that will not all simply be solved by new technologies. It is certainly not a time for "business as usual". It is the right time to encourage individual and collective experimentation. Taking risks and being innovative does not mean continuing on the same path as for the last 30 years. It means making the right decisions to allow our societies to change for the better. Present times are full of challenges, but they are also full of opportunities. Knowledge creation is not a privilege of universities and businesses anymore, and it is more crucial than ever, not only for the design of new technologies, but for social innovation.

Our collective capacity to create more societally relevant knowledge will ultimately depend on people, their curiosity to explore new grounds, their openness to engage with new actors, their willingness to change their habits and ways of thinking. Policy-makers at all levels, and the scientific community, can create the right conditions for social and technical innovation geared towards sustainable development, so that scientists engaging in new experiences are rewarded rather than punished for not following the mainstream.

What the Canadian experience on participatory research teaches us is the value and relevance of the co-production of knowledge, of taping into the knowledge of all sectors of society (practitioners, community workers, academics, policy makers, etc.), not only to ensure the circulation of this knowledge, but for the creation of new and more relevant knowledge, directly applicable in action, be it social or professional practice, or policy-making.

At a time of crisis, participatory research helps us rediscover the value of cooperation in science.

After all, the idea of cooperation, instead of competition for power and resources, is the very founding idea of the European Union, and has proven to be a rather successful one.

Part I

A New Context
of Knowledge Production

A. New approaches and trends in research

1. A dominant technological approach

Nowadays the quality of a research project is mainly evaluated according to two elements: the number of articles published in journals with a high impact factor, or the number of patents it yields. As these criteria allow for the construction of quantitative indicators at the macro-level, they are also used in research policy-making. "Papers and patents" is a good summary of the trends that have shaped scientific research at least for the last decades, and that explain why research agendas are so much focused on developing new technologies.

The production of knowledge in traditional research is academic and discipline-based, and results are mainly disseminated through peer-reviewed journals. Peer review judgements determine quality essentially through the contributions made by individuals to their discipline. The peer system allows for a professional control over what problems and techniques are deemed important to work on as well as who is qualified to pursue in their solution. In natural sciences and biomedicine prevails a "technological approach", in the sense that research projects usually either start with the question in which areas and how a given technology could be applied, or the project is shaped by a given technology or method.

The prevailing description of the nature of the scientific activity as "free", "pure" and "universal" was first contested by historians and social scientists, who see it as a discourse fulfilling a political and ideological function : the affirmation of the obvious superiority of the scientific approach for knowing and understanding the world, of its objectivity and neutrality, and the justification of the complete separation of the realms of "science" and "democracy"[1].

In more practical terms, research has been pretty much shaped by an industrial logic, based on the production of new "products". Besides, since the 1980s "life sciences" (biotechnologies) have replaced fundamental physics at the height of the scientific pantheon. These sciences, able to recombine and to "optimize biological material", able to re-design nature as well as humans, are much

more oriented towards action and technological production, to an extent that they can be considered as "technical" before being "scientific". Modern biotechnologies and an increased focus on rapid returns on investments have contributed to the disappearance of the familiar distinction between fundamental and applied science. At the same time, the deregulation of the economy went together with the strengthening of intellectual property rights since the 1980s and the broadening of their scope, to encompass living beings, genetic resources, the very building blocks of matter and, to a large extent, knowledge itself. These new forms of property have led to a new parcelling of knowledge, and to new monopolies. In this context research institutions have been encouraged by governments to set up "public-private" partnerships (PPP) and to contribute more directly to the economy.

All these trends may explain why science has come to be seen mainly as a purveyor of new high technology products and of competitive advantage, and why the expectations placed on technological innovation by a lot of policy-makers are so high.

2. Technologies as social structures

Technologies can contribute to solving problems, but it also important to evaluate their social impact. For example, the social, moral and political consequences of bio and nanotechnologies -and of their convergence- are huge, and largely new in their nature. Different technological choices can have different impacts on society. Besides, solving problems or achieving change is rarely only a matter of technology.

Technological innovation is too often framed as "one way" progress, and there is not much consideration about the direction of such progress. There might not be any general distrust in science, but there are concerns in society over the directions of science and technological development. James Wilsdon notes that "*too often, even within processes designed to engage the public, the choice we are presented with is advancement or not, faster or slower, but with no real option to change course [...] Engagement is still often portrayed as a way of addressing the impacts of technology – be they health, social, environmental or ethical -rather than helping to shape the trajectory of technological development*".

The political dimensions of research choices are evacuated, in the same way that they are evacu-

1. Pestre, D. (1997), "La production des savoirs entre académies et marché - Une relecture historique du livre : *The New Production of Knowledge*, édité par M. Gibbons", *Revue d'économie industrielle*, Année 1997, Volume 79, Numéro 1, p. 163 - 174

ated from downstream risk governance, that is too often based on a narrow definition of "health and environmental risks".

In reality, science, "*as knowledge linked to techno-systems, de facto has a politics since it favours certain ways of being and renders other futures more difficult, but without being often aware of it […] Science can provide interesting and useful solutions to problems faced by individual people and social groups, however, it should also be viewed as proposing solutions that are partial and partisan, solutions that are also part of the problem. Therefore, it is a duty, on the scientific side, to be cautious with the social implications that are de facto embedded in science and technological products, and legitimate, for anybody else, to question them*"[2]. The often implicit assumptions that frame technological choices, and their social implications, are rarely evaluated and discussed.

On the side of civil society, there is a growing demand for social accountability of the knowledge production process, and for upstream engagement in research policy. Society is diverse: it displays a diversity of values, of practices, of knowledge, and diversity of desirable futures. Choices and approaches in research need to reflect this diversity, and to leave open different potential futures.

3. Moving towards Sustainable Development: a multi-dimensional challenge

Sustainable Development means that "*the needs of the present generation should be met without compromising the ability of future generations to meet their own needs*." It is based on three pillars : environmental protection, social cohesion and equity, and economic prosperity[3]. As mentioned in the FP7 Vision Papers, "*the role assigned to R&D in the Sustainable Development strategy is pervasive and multifaceted*", and the expectations placed on research are high. Sustainable Development is now a widely recognised objective, but its very success is also based on its fuzzy character, as different actors can put forward different criteria. It is a multi-faceted concept, that raises conceptual challenges and leaves much room for interpretation. In moving towards Sustainable Development, the key question quickly becomes "*sustaining what and for whom?*".

2. Pestre, D., Science, Society and Politics : Knowledge Societies from an Historical Perspective, Report to the EC, January 2007
3. *EU strategy on Sustainable Development*. http://ec.europa.eu/research/sd/index_en.cfm?pg=fp7-sustainability

When one adds "*the need to align the EU Sustainable Development Strategy and the Lisbon strategy*"[4], the different objectives can become so diverse, and even contradictory, that almost any research activity can be labelled as "contributing to Sustainable Development". The Lisbon agenda frames research in terms of competitiveness and of "keeping up" with the economic race. The 7th EU Research Framework Programme (FP7), launched on January 1 2007, is meant to "*contribute towards promoting growth, sustainable development and environmental protection*". The pervasive focus in research agendas on "competitiveness", and the contribution of research to growth, in the narrow sense of a growth of GNP, as an overarching principle of FP7, seriously narrow down the options and possibilities of what should be sustained, how and for whom.

Many research projects now claim to address all three pillars of Sustainable Development but often each one of them in a different way. In civil society, there is a growing awareness and reflection on the links between the ecological crisis, the social crisis and the economic crisis. But, in the way the concept of Sustainable Development is framed at the institutional level, the juxtaposition of so many different objectives, which can appear as contradictory with one another, leads to a piecemeal approach, reflected in research agendas, and renders difficult an integrated approach of problems. The Environment Theme in FP7 acknowledges that "*the understanding of the links between environment and the two other pillars is still in its infancy, compared with that relative maturity of the understanding of the interaction between social and economic pillars*".[5]

Research based on a linear model, focused on competitiveness, is put into question regarding its social impact and relevance, and its capacity to address the Sustainable Development challenge in all its dimensions, in an integrated way. New approaches have emerged.

4. Inter and trans-disciplinarity

In recent years, developing integrated solutions that draw on more than one discipline has become more of a priority in research institutions. Universities in Canada have established a wide variety of interdisciplinary research centres and institutes, and a number of educational programmes on an interdisciplinary basis, "with a view to enhancing

4. *FP7 Vision Papers.* http://ec.europa.eu/research/sd/index_en.cfm?pg=fp7-sustainability
5. *Ibid.*

coordination of research, as well as providing students with solid grounding in the relevant fields. Interdisciplinary studies are driven both by a strategic perspective (themes and priorities) and by a sense, on the part of the researchers, of emerging opportunities. Some of the most interesting possibilities are found at the intersection of disciplines. For example, cognitive science (the study of intelligence in living beings and artificial systems) draws particularly upon psychology, linguistics, philosophy and computer science."[6]

Trans-disciplinarity goes further. The 2005 Forum on University-based Research also pointed out the need for European Universities to move towards trans-disciplinarity: "*There is inherent asymmetry between addressing relevant scientific and societal problems and the disciplinary structure upon which most universities are based. In this context the need for inter-disciplinarity is often mentioned. But inter-disciplinarity, i.e. co-operation between disciplines with a finite duration, is not enough. The development of the problems tackled by today's science implies that inter-disciplinarity is more a repair measure than a new instrument of science and research. What really matters is trans-disciplinarity, i.e. a new kind of co-operation that leads to an enduring and systematic scientific order that will change the outlook of subject matters and disciplines. Trans-disciplinarity is a form of scientific work which, again, arises in cases concerning the solution of non-scientific problems, for instance environmental, energy and health care policy problems, as well as an intra-scientific principle concerning the order of scientific knowledge and scientific research itself. In both cases, trans-disciplinarity is a principle of research and science, one which becomes operative wherever it is impossible to define or attempt to solve problems within the boundaries of subjects or disciplines, or where one goes beyond such definitions.*"[7]

5. Modes 1 and 2 of knowledge production

Policy-makers and academics involved in the institutionalisation of Participatory Research models often stress the importance of the seminal work of Michael Gibbons et al.[8] on the rise of a new

mode of knowledge production, coined "Mode 2". In short, while "Mode 1" research follows a linear model, refers to the conventional production of scientific-expert knowledge, is traditionally organised around universities and is mainly disseminated through peer-reviewed journals, "Mode 2" knowledge is produced in the context of application, in problem solving, and in the spaces formed by relationships.

Analytically Gibbons and his colleagues use a set of attributes to specify the differences between Mode 1 and Mode 2: "*in Mode 1 problems are set and solved in a context governed by the, largely academic, interests of a specific community. By contrast, Mode 2 knowledge is carried out in a context of application. Mode 1 is disciplinary while Mode 2 is trans-disciplinary. Mode 1 is characterised by homogeneity, Mode 2 by heterogeneity. Organisationally, Mode 1 is hierarchical and tends to preserve its form, while Mode 2 is more heterarchical and transient. Each employs a different type of quality control. In comparison with Mode 1, Mode 2 is more socially accountable and reflexive. It includes a wider, more temporary and heterogeneous set of practitioners, collaborating on a problem defined in a specific and localized context.*"[9]

Mode 2 knowledge production is a different approach based on the view of knowledge as a social construction, through a process of continuous negotiation between the interests of the different actors involved. It is problem-focused, trans-disciplinary and involves a variety of actors beyond universities. Knowledge is seen not only as a product, but also as a participative process.

Mode 2 is in many aspects more complex than Mode 1, notably because it is a process in which not only researchers but also citizens or CSOs can be involved. Those unfamiliar with it might see Mode 2 as a threat to conventional research. But, as Peter Levesque indicates: "*Gibbons did not state that Mode 2 [of knowledge production] would displace Mode 1; rather Gibbons and colleagues assured us that these two processes are complementary rather than in competition with each other.*"[10]

According to historians, Modes 1 and 2 have developped along one another in history and have existed at the same time, at respectively various degrees in discourses and practices. Besides, the alleged shift from Mode 1 to Mode 2 can be considered as normative as it is descriptive. But it is use-

6. Association of Universities and Colleges of Canada (AUCC), Momentum: The 2008 report on university research and knowledge mobilization

7. European universities: Enhancing Europe's Research Base, Report by the Forum on University-based Research, European Communities, May 2005

8. Gibbons M., Limoges C., Nowotny H., Schwartzman S., Scott P. & Trow M. (1994), The new production of knowledge: The dynamics of science and research in contemporary societies, Sage, London.

9. *Ibid.*

10. Levesque (2008), op.cit.

ful to describe the main features associated to Participatory Research.

6. Problem-based approach

Jenny Onyx adds that "*such knowledge generation is transdisciplinary within a problem- solving framework and involves both empirical and theoretical components. It is dynamic, and*" *its diffusion occurs initially in the very process of its production. Such knowledge production is likely to occur through multiple sites, and is certainly no longer the privileged possession of the university.*"[11]

The problem-based approach that lies at the heart of participatory forms of research, with their focus on providing concrete improvements, forces to address a given issue in its globality, in all its dimensions. It is a drive towards trans-disciplinarity, that can in turn lead to better integrated policies. This aspect highlights the importance of participatory approaches in research that is meant to contribute to Sustainable Development. Involving CSOs in research can be a key tool to better understand the links between the different dimensions of Sustainable Development, through the examination of concrete problems.

The challenges we face with moving towards Sustainable Development are multi-dimensional; tackling this multiplicity is a drive towards trans-disciplinarity, and forces to pay attention to the complexity of reality. Instead of a focus on a given technology, or on a given scientific discipline, research partnerships start with defining the problem. This approach is more systemic, not only because of the attention paid to the the inter-related different dimensions of a problem (potential for social innovation) but also in scientific terms.

11. Onyx, Jenny, University-Community Engagement: What does it mean? Gateways: International Journal of Community Research and Engagement, No 1 (2008): 90-106

Coast under stress - a good example of transdisciplinary research

Summary of the project
This project, involving a wide range of partners, aims to evaluate the impact of environmental and social restructuring on the social-ecological health of the two canadian coasts, through studies covering all of its aspects: industrial activities, political frames, people and communities' habits and their consequences both on environment and on cultural, social and economic issues. Then, based on this framework, the CUS team suggests some new paths for the governance of this complex social-ecological health, providing the building of long-term methods of investigation, evaluation and decision-making processes involving all aspects and actors of the concerned areas.

A transdisciplinary approach
> " production of new knowledge ": Integration of models from sociology, biology, health sciences and economy into a unified social-ecological health model dealing with complex, adaptive cultural and natural systems.

Association and involvement of communities
> promotion of " new ways of doing research ": involvment of very different types of partners (institutions, universities, research laboratories, non-for-profits organisations, industries, First Nations communities)
> recognition of all types of knowledge (promotion of community-based knowledge through sociological tools, ex: focus group to understand youth concerns, interviews and involvment of First nations)

Outputs
- *academic outputs*
> production of several academic contributions by the CUS team.
> involvment of many students, PhD students in the project.
> production of data-bases, collections of materials, etc.
- *outputs for communities*
> development of intellectual capacity
 among First Nations through the CUS student/Gitga'at joint creation of a plant-based school curriculum that has brought elder knowledge into the school and the formal learning process, and has linked students to their elders and local environments.
> promotion of the model of " science shops " to institutionalize the involvment of communities in research programs.
> production of useful knowledge to local people, industries and governments (ex to help fisheries to adapt their tools to the socio-environmental context)> dissemination of the knowledge to the general public through several books> production of a community-focused book (*Voices onthe Edge. R. E. Ommer, ed., with R. J. Hood.*)
- *political outputs*
> promotion of a unified policy framework which takes in account all aspects of the problems, and which allows the involvment of all concerned actors in decision-making processes
> production of prospective contributions and of a book in destination to policy makers: *Restructuring and Policy: A Bi-coastal Analysis. R. E. Ommer, ed.*

Problem-Based Research in Practice

The Pacific Institute for Climate Solutions is a good example of a problem-based approach, involving all stakeholders and scientific disciplines. PICS is being established as a collaboration between the BC's four research-intensive universities, to be hosted and led by the University of Victoria. It is funded through a $90M endowment from the Province of British Columbia and a $4.5M start-up funding for the first year.

The mission of PICS is to: "*partner with governments, the private sector, other researchers and civil society in order to undertake research on, monitor, and assess the potential impacts of climate change and to assess, develop and promote viable mitigation and adaptation options to better inform climate change policies and actions*".

The work of the Institute will engage virtually all disciplinary areas of research: human responses and adaptations (socioeconomic, behavioural, cultural, and health), climate and ocean responses, marine and terrestrial ecosystem shifts, and technological innovations. It will involve researchers at all levels – directly or jointly appointed faculty, post-doctoral fellow, graduate students and visiting fellows.

Hosted and led by the University of Victoria, the Institute four universities. An Executive Committee is to be appointed to oversee the activities and operations of the Institute. A high-level Advisory Board, consisting of members from government, the private sector, NGOs and universities, will provide advice on the activities of the Institute. The Advisory Board will serve as a conduit for communication between government, the private sector, civil society groups and the Institute, to ensure the realization of the mission.

Source: http://www.pics.uvic.ca

B. Participatory Research

1. Definitions

Whereas in Europe the term "Participatory Research" (PR) is usually used to describe the involvement of citizens or civil society organisations (CSOs) in research processes, in Canada the terms "Community-Based Research" (CBR), "Action Research", "Community-Engaged Research" are more common. These terms are mostly used interchangeably (sometimes in combination, and we will do the same throughout this report) but different authors put the emphasis on different aspects, reflecting the diversity of the practices. In general terms they refer to research conducted in partnership between traditionally trained experts (usually academics) and members of a community

or a CSO. It is worth looking at a couple of definitions:

Participatory Action Research (PAR) simply "*recognises the need for persons being studied to participate in the design and conduct of all phases (e.g. design, execution and dissemination) of the research that affects them. PAR is an approach or strategy for research, not a research methodology.*"[12]

Budd Hall indicates that *"the term community-based research that is in use at the University of Victoria encompasses a spectrum of research that actively engages community members or groups to various degrees, ranging from community participation to community initiation and control of research. From a university perspective, community-based research refers to a wide variety of practices and is supported by several academic traditions: Academic or scientific knowledge put at the service of community needs; Joint university and community partnerships in the identification of research problems and development of methods and applications; Research that is generated in community settings without formal academic links at all; Academic research under the full leadership and control of community or non-university groups; Joint research, which conceived as part of organizing, mobilizing or social advocacy or action. […] In relation with the university Community-Based Research is a collaborative enterprise between academics and community members. Community-Based Research seeks to democratize knowledge creation by validating multiple sources of knowledge and promoting the use of multiple methods of discovery and dissemination. The goal of Community-Based Research is social action (broadly defined) for the purpose of achieving (directly or indirectly) social change and social justice.*"[13]

Editors of the *Action Research* journal go further and emphasize the importance of acknowledging "values" in the knowledge creation process: "*As disparate as these traditions are, what links them is the key question of how we go about generating knowledge that is both valid and vital to the well-being of individuals, communities, and for the promotion of larger-scale democratic social change.*"[14]

12. Doe, Tanis; Whyte, John. Participatory Action Research. Paper presented at the National Institute on Disability Research Conference "Forging Collaborative Partnerships in the Study of Disability" in Washington, D.C., 1995.
13. Hall, L.B., Higher Education, Community-Engagement and the Public Good: The Future of Continuing Education, submittedto the Canadian Journal of University Continuing Education and draws on a keynote speech to the national conference of CAUCE, May, 2008 in London, Ontario.
14. Why action research? Mary Brydon-Miller, Davydd

2. A diversity of objectives and of degrees of involvement

The diversity of the definitions reflects the diversity of the field and of the experiences. There is certainly not a single model to be promoted, and Participatory Research does not lend itself to a "one size fits all" approach. Different models (University Liaison Offices, Community-Based Research Centres, Service Learning, Science Shops in Europe, etc.) have different explicit objectives (problem solving, capacity-building of communities, enhanced teaching programmes, agenda setting, etc.), benefits and constraints[15]. They give a different role to different partners and, even within a given mechanism, such as the Community-University Research Alliances (CURAs, see Part II), there is a need to allow for flexibility within projects. But the renewed interest for Participatory Research in the last decade has led to the publication of many

pieces of work that try to conceptualize this approach and, drawing on 40 years of experience, there are, as we will see below, key principles to be respected for Participatory Research projects to bear the most fruitful outcomes.

A research project usually includes the following stages: problem definition/issue selection, research design, conducting research, interpreting the results, and determining how the results should be used for action. The role of the CSO or community partner can vary according to its capacity or to the purpose of the research project. It may end after the framing of the research question, it may start with the dissemination of the results, CSO partners can be involved in the research process itself, from the collection of data to the interpretation of the results. Some models insist on the equity of the partnership at all stages, on the sharing of power, resources, credit, results, and knowledge, as well as on the reciprocal appreciation of each partner's knowledge and skills at each stage of the project.

3. A diversity of partners

"Community" is a central concept in all definitions of Participatory Research in Canada. This notion has a broad sense: there has always been community, since the beginning of society describing the social structures of people gathering on the ground of a common purpose. Charitable work, socio-political movements, mobilisation for a common cause can all be described as communities, as informal networks that may, or may not evolve into formal organisational structures[16]. It is very similar to what the EU (in the context of FP7) defines as "Civil Society Organisations" (CSOs): "*any legal entity that is non governmental, not-for-profit, not representing commercial interests, and pursuing a common purpose in the public interest*"[17].

The Association of Universities and Colleges of Canada (AUCC) provides a useful typology for university-community research collaboration, which can involve communities of place, cultural communities, or communities of purpose (see Box). Communities of practice is also a frequent concept in the health field. More and more projects involve both CSOs or communities and public authorities

Greenwood, Patricia Maguire , Action Research, Volume 1(1): 9–28, 2003

15. Note: For an overview of six different models, see for example Doing more in Partnership: A Tool Kit for Community-University Collaboration, a 2006 report of the Provincial Centre of Excellence for Child and Youth Mental Health at CHEO, available on: http://www.onthepoint.ca/resources/toolkits.htm

16. Onyx, Jenny, University-Community Engagement: What does it mean? Gateways: International Journal of Community Research and Engagement, No 1 (2008): 90-106

17. Work programme 2007, Capacities, Part 5, Science in Society, p. 8
ftp://ftp.cordis.europa.eu/pub/fp7/docs/wp/capacities/sis/s_wp_200701_en.pdf

as partners as a way to increase both the societal relevance of the results and their relevance and use by policy-makers.

ens of partners from several countries or provinces, putting their results in common to further knowledge on a transversal issue.

4. A diversity of scales

CSO-researchers partnerships, and the infrastructure and incentives put in place to encourage them, can operate at local, regional, national and European levels. A lot of partnerships happen at the local level, with geographically defined communities, for a limited period of time (.e.g. 6 months), and try to address a practical issue or solve a precise problem. On the other hand EU projects (2 years) or CURA projects (5 years) can involve several doz-

5. A diversity of areas and disciplines

Participatory Research is most developed and most accepted in fields which are "social" by definition. Understandingly, social sciences are at the forefront in these movements. This is partly linked to the fact that social scientists are evaluated on a more diverse set of outputs, publications in "high-impact factor" journals is less crucial than in natural sciences. To use Gibbon's typology again, natural sciences are still very much based on the

Different kinds of communities

Canadian universities are physically located in 80 cities and towns across Canada and have ample opportunities to engage with these **communities of place**, and surrounding areas. Universities and the communities and regions in which they are located work together on research programs and projects in a number of areas, including policies and planning, physical services and social services. For example, the University of Waterloo worked in a research alliance with the three municipalities in its region, as well as the regional government, and business and community groups concerned with revitalization of the urban core areas.

Universities are also working with local/regional governments, business organizations, and community groups to advance economic development, with attention to promoting and supporting research and innovation as key assets in seeking investment and developing competitive strength in priority sectors.

Physical services and infrastructure are another important area of cooperation. Universities are working in partnership with local/regional water authorities in research on the quality and safety of drinking water and with local and regional governments on research and knowledge-sharing concerning roads and concrete structures. Sustainability and durability are key concerns in research involving physical services. [...]

Universities are also working with a wide range of community partners in research aimed at addressing social issues and improving social services, in areas such as affordable housing, homelessness, crime prevention and public safety, addiction and substance abuse, poverty, immigrant settlement and adaptation, neighbourhood improvement, public health, and services for youth and for the elderly. Community partners help in a variety of ways, including contacting and recruiting research participants, providing practical experience and advice/guidance for students and researchers involved in the projects, and contributing their own expertise to the research projects.

Similarly, as focal points for research and as partners in research, **cultural communities** work with universities in two main ways. First, they help in providing funding and essential materials (such as archives) as well as access to knowledge held by individuals and associations. Second, they participate in outreach and communications and as audiences for much of the research, particularly as more research material and outputs are made available online.

Universities have established a wide variety of programs (including chairs, centres, and institutes) relating to specific cultural communities – focusing on history and traditions, languages and literature, other facets of their culture, and their contributions and adaptations to Canada. The establishment of such programs follows the changing patterns of immigration to Canada, with programs relating to many immigrant groups, as well as several religions. As Canada is increasingly linked to the global economy, there has also been more of a focus on the languages, cultures and traditions of countries and regions that are major trading partners for Canada [...].

Communities of purpose bring together people who are interested in addressing a particular issue of interest that may not link them in terms of geography or culture. The issue might revolve around health, the environment, or a social cause, which draws together citizens who may have few characteristics in common beyond the shared issue. These communities are often organized as not-for-profit associations or charitable foundations and have a natural affinity for partnerships with universities because they have a clearly defined need for knowledge that faculty and students can provide. Likewise, researchers in the fields that address these communities' interests manifestly benefit from engaging these communities as a means of furthering their work.

Source: Association of Universities and Colleges of Canada, Momentum: The 2008 report on university research and knowledge mobilization

traditional, linear "Mode One" model of knowledge production.

But Participatory Research is also relevant and applicable to sectors where natural sciences have a more prominent place. Participatory Research is pretty much developed in the health field, which has a strong social component. This model of research is also more and more applied to environmental issues. A very simple search of publications databases show that participatory approaches to research are used most of all in disciplinary fields like "Environment sciences", "Environmental studies" or "Ecology", before Health disciplines and Agriculture[18]. As Participatory Research naturally leads to adopting a problem-based and trans-disciplinary approach, it is particularly adapted to issues linked to Sustainable Development and to tackling problems which are transversal and have multiple dimensions.

Disciplines like "geography" and "environmental sciences" are key bridges, as they bring together health, natural and social sciences. The application of Participatory Research methods to such fields is more difficult. Here as well it is a matter of bridging the gap between two cultures, and partners need to go through an intensive phase of " building of a common language" ; all along the process, social sciences are challenged by the natural sciences on the "lack of robustness".

Participatory methods are also applied with great success in the field of agriculture, where the co-production of knowledge between farmers and agronomists or biologists has led to enduring successes. These Participatory Research methods have been used mostly in the development area, but, thanks to innovative farmers movements, that take care of local genetic resources and reclaim the right to perform their own seed breeding, Europe seems to have taken the lead on applying participatory methods agriculture issues.[19]

Natural sciences are also often focused on a "technological approach". But, as noted above,

18. STACS Scientometrics analysis - Research priorities in Europe.

19. See the work of Michel Pimbert, www.ieed.org and Pimbert, Michel (2001), "Reclaiming our right to power: some conditions for deliberative democracy", Participatory Learning and Action Notes 40 ; see also the work of the Réseau Semences Paysannes, partner of the STACS project.

Subject Area	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Environmental sciences	18	25	32	25	28	31	58	53	68	70	408
Public, env. & occupat. health	10	6	20	21	28	34	43	45	60	45	312
Ecology	2	8	14	16	17	16	27	31	33	32	196
Agriculture, multidisciplinary	6	8	15	16	18	15	35	19	26	19	177
Agronomy	4	13	6	27	14	12	14	13	26	28	157
Medicine, General & Internal	4	5	7	5	15	7	15	16	25	17	116
Water resources	7	4	2	5	10	13	9	12	23	25	110
Health Care sciences & serv.	2	3	3	11	11	13	12	12	17	17	101
Environmental studies	1	5	9	5	8	5	5	12	23	27	100
Nursing	0	0	0	1	7	10	16	18	20	23	95
Forestry	1	11	5	6	13	6	16	7	9	13	87
Plant sciences	1	5	1	17	8	4	5	9	10	20	80
Engineering, environmental	10	2	4	1	3	3	4	9	11	12	59
Geography, physical	1	3	7	4	8	9	6	9	9	3	59
Veterinary Sciences	1	2	2	4	4	8	8	5	7	16	57
Health Policy & services	1	3	2	6	10	9	6	6	7	4	54
ergonomics	0	5	7	4	5	7	4	7	5	7	52
Horticulture	0	3	0	16	7	2	2	3	6	9	48
Engineering, industrial	2	4	5	3	5	4	5	8	3	7	46

Scientometrics Analysis Worldwide - "Participatory" Keyword: Number Of Publications by Subject Areas

different technological choices can have different impacts on society, and solving problems or achieving change is rarely only a matter of technology. That is why, although the choice for participatory tools and for a co-production of knowledge process might not always appear relevant in fields focused on the development of new technologies, it is important that society be involved in the definition of problems in the first place, and in the design of potential solutions. This might be more a matter of "governance" rather than research, but these two aspects are closely linked.

6. Participatory Research in different countries

The rise of participatory research started in the late 1960's. At that time this kind of research was mostly informal, carried out by individual scientists particularly committed to improving the lives of the communities they worked with, in Canada or elsewhere, with no clearly defined methodology, on an *ad hoc* basis, and without funding nor institutional support. Early concepts and practices of Participatory Research were partly inspired by the work of Brazilian thinker Paulo Freire (1921-1997) on education, and innovative experiences led by the University of Dar es Salaam in Tanzania. The International Participatory Research Network was created in 1976 under the auspices of the International Council for Adult Education, providing for the next decades a space for exchange and giving visibility to a set of practice that had emerged independently in Africa, Latin America and India, and which were increasingly experimented in Northern countries. Nowadays Participatory Research seems particularly strongly established in Canada, the USA, India, and several African countries.

Europe has played a pioneering role in linking researchers with CSOs, notably thanks to Science Shops, established in the early 1970s in Dutch universities to provide independent, participatory research support in response to requests from community groups. Across the 1970s and 1980s, there were attempts to establish Science Shops in other countries, with varying success. However there was a new burst of interest in Science Shops in recent years, and their capacity for networking was re-enforced thanks to the support of the European Commission, that has funded four projects since 2000.[20]

The third sector of knowledge production

Civil society has become a major location for knowledge, innovation and expertise. Compared to the knowledge produced in public and private institutions, one can distinguish the associative and citizens' expertise and research – the scientific third sector or the third sector of knowledge production1 - by following characteristics :

1. The knowledge (research, expertise, studies) is not primarily produced neither in usual academic and public institutions nor in private enterprises (therefore the term "third sector").

2. The production of the knowledge is controlled by other logics than the desire of power, the quest for profits or the will to know of a single professional group. The organisations of the third sector of knowledge production are even often committed in an active fight against these three logics.

3. The third sector of knowledge production explores alternative socio-technical futures and new directions for research. It goes beyond mainstream paradigms and frames which dominate public and private research institutions.

4. The forms of knowledge sometimes differ from the classical scientific knowledge by their local character and relevance. They are built by and for concerned local groups, e.g. patients, peasants, local communities, users.

5. The third sector of knowledge production creates knowledge according to a participatory mode where the division between experts and "laymen" (user of knowledge) leaves the place to a relation of dialogue and co-production of knowledge and innovations thus mobilising the immense reserves of creativity, of curiosity and of intelligence existing in our societies.

6. It can offer an alternative model of innovation confronting the " appropriation " model of innovation (patents, copyright) and defending knowledge as a common good.

Individual researchers, and sometimes research organisations, have been involved in Participatory Research for a long time[21]. But there seems to be few formalized Participatory Research programmes in European Universities. The Talloires Network is an international association of institutions committed to strengthening the civic roles and social responsibilities of higher education, and to strengthening the application of university resources to the needs

Shops and Universities: Experiences and Expectations), EC project HPV1-CT-2001-60039. See http://members.chello.at/wilawien/interacts/main.html
- ISSNET (Improving Science Shop Networking), EC project HParticipatory ResearchP-CT-2002-00011
- TRAMS (Training and Mentoring of Science Shops)
See www.scienceshops.org for information about the international science shop network, Living Knowledge
21. See for example the International Institute for Environment and Development: http://www.iied.org/

20. - SCIPAS (Study and Conference on Public Access to Science through science shops) EC project HPV1-CT-1999-00001
- INTERACTS (Improving Interaction between NGOs, Science

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of local and global communities[22]. As an indication, while 17 universities in the EU are members of this network, 11 of these members are located in the UK, 2 in Spain, one in Germany, one in Ireland, on in Latvia and one in the Netherlands. Community-based research is gaining ground in the UK, and the government gives incentives to universities to set up programmes and mechanisms[23]. As soon as 2003 the University of Brighton (UK) established such a programme, the Community University Partnership Program (CUPP)[24].

C. A growing support to participatory research in the European Union

1. Towards "Science in Society"

Since 2001, and the political recognition of the need to step up the dialogue between "Science and Society", the EU has taken a number of initiatives to identify what could be the best course of action to include civil society in research policy, and in research projects. The Science and Society Action Plan, adopted in 2001, laid out the ambitious goal of re-conciliating science and society. These actions had a budget of 88 millions euros from 2002 to 2006 that corresponds to 0.3% of the total FP6 budget.

The Science and Society Action Plan has been hailed as a "landmark document". A Policy Synthesis on EU Research in Social Sciences and Humanities notes that: "*The Science and Society Action Plan issued by the European Commission in 2002 should become recognised as one of the defining documents in the evolution of the social practice of science. For the first time, a public governing body has made an analysis and recommendations which are based on a seriously critical perspective on the scientific enterprise. For the first time, deficiencies are observed in the conduct of science which are not explained as merely the result of inadequacies in organisation or funding. The views of people outside the world of science are now recognised as significant in the governance of science. Should the Action Plan succeed in its objectives, then the science that emerges could be as different from the science of today as today's science is from that of the gentleman amateur and his protégés. Should it not succeed, then we would need to anticipate a deepening alienation of science*

from civil society, accompanied by deepening crises or recruitment and morale. The consequences for the matured nations in the global "knowledge economy" could be of profound historic significance."[25]

FP7 dedicates 330 million euros to Science in Society activities. Even if this budget is much more important than the budget in FP6, it still represents less than 1% of the total FP7 budget that is of around 50 500 million euros. Both the Commission and the European Parliament had proposed a more significant amount – up to 1200 millions euros – to be allocated to these activities. In 2007, 28 projects were selected for the Science in Society programme with a total funding of 21 million euros. But despite its few resources, and being set up against the background of the "Lisbon strategy", which frames science and technology's roles primarily as purveyors of "competitiveness" and "growth", this programme has led to a deeper understanding of what should be the direction for a better involvement of society in research policy, notably through a number of key seminars and reports.[26]

2. From "risk governance" to "innovation governance"

It is not the purpose here to summarise all the developments and recommendations born out of the EU Science and Society programs but it is useful to remember a few key points. In a context of perceived increasing unease and distrust of the public towards scientific-technological innovations (such as the use of GMOs in agriculture), the first programme was mainly aimed at re-assuring the public on the consequences of given technological choices. Since then, "Science *and* Society" activities evolved towards a more inclusive concept of "Science *in* Society", from a vision of "Public Understanding of Science" (linked to a so-called "deficit model": an ignorant public has to be educated about science) to a more elaborate "Public

22. http://www.tufts.edu/talloiresnetwork/
23. See for example Beacons for Public Engagement, university-based collaborative centres to help support, recognise, reward and build capacity for public engagement work across the UK: http://www.rcuk.ac.uk/sis/beacons.htm
24. http://www.brighton.ac.uk/cupp/aboutus/index.htm

25. EU Research in social sciences and humanities, Policy Synthesis of EU Research Results, Series no 12: Science, Governance and Society, http://ec.europa.eu/research/social-sciences/policy-briefs-reviews_en.html
26. - See in particular:
- Governance of the European Research Area: The Role of Civil Society, EC Report, October 2003
- Gover'Science report towards a framework for "Co-operative Research", EC Report, April 2005
- Taking European Knowledge Society Seriously, EC Report, January 2007
- Science, Society and Politics: Knowledge Societies from an Historical Perspective, EC Report, January 2007
- Public Engagement in Science, EC Report, 2008

Engagement in Science" concept. This marked the recognition that:

• science and technologies are a social construct: science is made by human beings living in a society, it is dependent upon its socio-economic context of production and, "*as knowledge linked to techno-systems, science de facto has a politics since it favours certain ways of being and renders other futures more difficult, but without being aware of it*", and without feeling "*the need or usefulness of democratic mediation*";

• there are other forms of knowledge that deserve to be taken into account: "*Scientific intellectuals may not realize that other forms of knowing exist – forms that are also interesting and productive – and that it would be wrong (morally as in terms of global efficiency) not to respect, protect and even promote these other forms of knowing*"[27];

• that public engagement is about the "framing" of scientific evidence: "*being as rigorous and careful in validating the questions, as science itself is rightly respected for being in approaching the answers*", and "*including a diversity of knowledges and experience in order to inform more robust long term choices*". The way forward therefore lies in "upstream engagement": "*at the earliest stage in the process of research or science-informed policy-making*"[28].

Participatory research is a powerful means to concretely move forward towards these goals, provided the outcome of such research is linked to the policy-making process. It is also a way for the EU to be more innovative, and to push into new areas of "Mode Two" knowledge production. It is important to remind these basic points because, indeed, the need for more participation and "inclusiveness" in decision-making should not be taken for granted. The goal should not be to try and maximise CSOs and citizens participation at all levels at any cost. Participatory research is not gonna solve all issues, but there are some areas where it can make a real difference: environmental, social, health, agriculture, in the first place.

Of course, making research and policy more relevant to society's needs and concerns, is not only a matter of involving CSOs in research, it is also a matter of governance, of involving civil society in the decision-making process on science policy.

3. Encouraging inter-disciplinarity

Besides the Science in Society programme, the Socio-economic Sciences and Humanities programme is the second pillar of the "Science, Economy and Society" Directorate within DG RTD. The mission of this programme is to support the design of research on Socio-economic Sciences and Humanities and to contribute to the implementation of research results for strengthening European policies.

DG RTD also tries to encourage inter-disciplinarity and a better integration of social sciences into all research programs. But even though inter-disciplinarity is more and more recognized, and increasingly applied in some programs (e.g. Environment), it is still not enough valorized, and there remain major difficulties for it to become more of a focus of attention for research policy-makers.

A EC working group, managed by the Horizontal Aspects and Coordination Unit, has also attempted to integrate social and economic aspects in all programs, since FP6, with varying success: while in some programs the use of social sciences is growing, in others it seems to be decreasing. An evaluation report notes that[29]: "*The study of the socio-economic dimension in FP6 found that, while socio-economic objectives clearly guided FP6, efforts to integrate socio-economic aspects in research and technological development are still facing conceptual and practical problems. programme documents, proposal requirements and evaluation criteria mostly refer to the socio-economic dimension in "symbolic terms". Moreover, there is no clear "concept" of why natural and engineering scientists should incorporate socio-economic aspects and values in their proposals, or how they must do it. [...] However, it notes that there were "major problems related to socio-economic dimensions in the evaluation process". The study found that, in many cases, multi-disciplinary projects that are evaluated by multi-disciplinary teams suffer from differing assessments by evaluators, and receive lower marks. [...] On the other hand, project proposers often see socio-economic dimensions as an additional "burden" and not a vital part of their "real"*

27. Science, Society and Politics – Knowledge Societies from an Historical Perspective, Report to the Science, Economy and Society Directorate, EC, January 2007
28. From Science and Society to Science in Society: Towards a Framework for "Co-operative Research" - Gover'Science Seminar 2005 Outcome, Report to the EC, 2006

29. Final Report of the study on the integration of Science and Society issues in the Sixth Framework program, Report to the EC, 2007 ; based on Mid-Term Synthesis Report on the Integration of Socio-economic and Foresight Dimensions (SED) in FP6, Report to the Commission, 2004 ftp://ftp.cordis.europa.eu/pub/citizens/docs/sed_report_final_050720.pdf

research activities. According to the study's author, project proposers seem to assume that "an 'invisible hand' will ensure that pure science and engineering activities will lead to the expected socio-economic outcomes and impacts". [...]The continuous development of the technology paradigm in accordance with the societal, economic and environmental challenges is, according to the study, a basic requirement for empowering the research and engineering community to cope with the increasingly complex challenges of today's societies. The challenge for FP7 is to achieve this integrated approach and overcome disciplinary segregation. Furthermore, the research world, including universities and technical colleges, must expose young scientists to other disciplines and teach them how to work together in interdisciplinary teams. As for other Science and Society dimensions, there is no inconsistency between quality and interdisciplinary research. Indeed, it is likely to strengthen quality, by developing scientists who are "deeply rooted" in one field but are also taught to understand other approaches and learn from other methods. It is often at the frontiers between disciplines that the most interesting innovations are developed [...] ."

Involving social scientists can definitely help draw the attention of research teams to the social implications of their projects. But it will not, by itself, ensure that projects will be more relevant to society.

4. Social Platforms in Social Sciences and Humanities

Another recent promising initiative from DG RTD has been the creation of "Social Platforms", aimed at discussing future research agendas on complex societal problems, with the involvement of the research community and "societal stakeholders" (civil society and policy makers), so as to catch different perspectives. Social Platforms are conceptualised as a counterpart to the industry-led European Technology Platforms, as a means for civil society to help determine the research agenda. Based on a focused, critical review of existing research, and taking account of key policy and societal questions, Social Platforms are not a research project by themselves, they are a "support action", in which the participative aspects are essential. The first Social Platform, "Social Polis: Cities and Social Cohesion Cities and Social Cohesion", was launched in 2008. Another one is being built, dedicated to "Families ".

Few information is publicly available for now on this recent initiative but it seems that few CSOs are

represented in the Social Polis Platform, which is largely dominated by academics. The European Commission is reflecting on new ways to push scientists to get as much input from CSOs as possible, but is seems to be facing a certain resistance. Scientists – even "social" ones – have been trained to consider "civil society" as an object of research, rather than as an active knowledge producer, and it will probably take time before civil society is fully integrated into Social Platforms. Another difficulty is that civil society so far is not organised so as to take part in such structures, and it can be difficult for policy-makers or scientists to identify the most relevant or the most representative CSOs, and to convince them to participate.

But mechanisms like Social Platforms have a strong potential, and would deserve to be extended to new domains and programmes where it is hard, or especially relevant, to introduce social sciences. Platforms explicitly led by CSOs could also be envisaged in the future, as a way to ensure their meaningful participation to the definition of research agendas in key domains.

In the meantime, the direct involvement of CSOs in research should be stepped up and mainstreamed. The EU now has a specific instrument, the BSG-CSO funding scheme, to support Participatory Research.

5. The Benefit for Specific Groups-CSO financial instrument (BSG-CSO)

The Commission has taken several initiatives to promote the participation of CSOs in research framework programmes. At the end of FP6, a pilot call for proposals aimed at "CSO capacity-building" was opened to fund preparatory activities in relation to CSOs needs and interests. A further call on the same issue was opened in the first year of FP7, and six projects were selected in total. In FP7, the 2007 Science in Society Work Programme initiated "Cooperative research processes", a call allowing partnerships between researchers and non-researchers (including policy-makers, citizens and CSOs), with a focus on mutual learning. Two projects, led by universities and involving CSO partners, have been selected so far. The third initiative consists in a "Funding scheme for the benefit of civil society organisations", the BSG-CSO.

A funding scheme structures the way projects are submitted in response to a call for proposals, and the way they are funded. They define what types of activities are supported (research, manage-

ment, training, dissemination, etc.), the nature and number of eligible participants, the mode of partnership between them and the provisions for the use and ownership of research results. In comparison to the Collaborative Projects funding scheme (which is in theory open to CSOs but which they do not use), the BSG-CSO allows a wider allocation of time and resources to training for CSOs and researchers to adapt to each other's knowledge and functioning modes, requires a solid outreach strategy with a strong policy dimension, and provides all the rights to participating CSOs to disseminate and use the research results in the public interest.

The BSG-CSO is a groundbreaking instrument as it allows CSOs to submit proposals for research projects with societal relevance and impact in partnership with researchers. For the purpose of the BSG, CSOs are defined as "*non-governmental, not-for-profit, not representing commercial interests and pursuing a common purpose for the public interest*". This scheme is also important because it can be made available in calls for proposals touching almost all thematic priorities of the annual work programmes of FP7, so beyond "Science in Society" issues, which have already been open to the participation of CSOs.

The BSG-CSO instrument is an extension of an instrument aimed at Small and Medium-sized entreprises, adapted to fit CSOs characteristics by allowing more time and resources on training, dissemination of results and impact on policy-making. It is a concrete outcome of discussion within DG RTD on how to better take into account the Sustainable Development imperative in DG RTD activities.

A positive assessment

Presenting a new financial scheme, the BSG-CSO instrument has attracted a considerable interest on the side of academics and CSOs, reflecting the growing interest of CSOs in getting involved in research and research policy, but also the interest for collaboration with non-profit civil society on the part of researchers. For now it has been used in four Work Programmes (Environment, Social Sciences and the Humanities, Science in Society, Transport). Since the beginning of FP7, eight projects have been selected so far, . Together they involve 47 CSOs from 23 countries (16 EU countries and 7 non EU countries), 20 research organisations (mainly universities) and 2 public centres. All projects display a multi-disciplinary scientific approach aimed at a better understanding of societal

issues such as conflicts prevention and resolution, anti-corruption or the design of better indicators for Sustainable Development.

The EU research projects which have been selected in the Environment Work Programme (WP) of FP7 are a good illustration of the different ways research can contribute to the needs of CSOs or tap into their knowledge. This WP covers the identification of tools and indicators for Sustainable Development, and research on the relationship between the three pillars of sustainable development: economic, social and environmental. The first year of FP7 featured a call for research projects on engaging civil society in research on Sustainable Development, which addressed the needs of CSOs. The 2008 WP had a more restricted call to the indicators of Sustainable Development. Three projects were accepted: the Ecological Footprint, indicators on Good Governance and Fair Trade. A new approach has been used for the 2009 WP, the topic being "Enhancing connectivity between research and policy-making in Sustainable Development". In this new call, researchers, and actors involved in research, whether from the academic world or civil society, should work together with policy-makers to ensure that existing research results are brought into the policy-making arena. This will be done by selecting a specific policy issue and process and applying a collaborative method to bridge the gap between research and policy. The expected outputs are very concrete: the project partners should be able to demonstrate the impact of the research on the policy development.

In the field of Social Sciences and the Humanities, the BSG-CSO has already been utilised for topics such as "societal models in the medium to long-term perspective", "conflicts, peace and human rights" and "independent media and democracy in Europe".

A still underused BSG-CSO scheme

The BSG-CSO instrument has been used in few programmes for now. It takes time to integrate a new and innovative instrument into the complex administrative rules of FP7, and to make it known among officers. But it also seems like there are "cultural barriers" to its use, and that the idea of integrating CSOs in research creates some resistance. Pioneering innovations of course always create resistance, especially within larger structures, but beyond this it is also a matter of culture: research policy has always been seen as a matter of "experts", and the notion of "excellency" is very pre-

sent in it. This leads to a certain "elitism" and to the idea that the "quality" of the "producer" makes the quality of the "product". A large part of the current national and European research systems function according to an industrial logic of "products", with a growing focus on high technology innovations. The notion that research can contribute to society in other ways than the design of new products or technological fixes is gaining ground, but is still insufficiently recognized in areas dominated by natural sciences.

Despite its limitations and the relatively little number of projects started so far, the BSG-CSO has already proven to be a very important "symbolic opening". Most researchers involved stress the role it has played in the legitimization of Participatory Research within their universities and institutions, with their colleagues, and with their national science policy-makers.

The EU support to Participatory Research has a significant positive effect in this respect, and has a great potential to support the development of societally relevant research across Europe, and beyond. By providing concrete support to CSOs for doing research, it also sends a strong signal to civil society and is a powerful incentive for them to get involved in research, and to devote time and resources to the national and EU research policies.

Part II

Participatory
Research in Canada

A. Overview

1. The institutionalization of Participatory Research in Canada

Canada, similar to many European countries in the way the research system is structured and funded, is also the OECD country where participatory-type research enjoys the widest recognition and the strongest support from both the government and universities. The creation of a dedicated funding structure in 1999, the "Community University Research Alliance" (CURA), was a landmark, which has attracted worldwide interest and continues to inspire similar initiatives around the world. But the engagement of scientists with communities in Canada largely pre-dates the creation of official support and funding mechanisms at the federal level. In the words of Budd Hall, who coined the term "Participatory Research" in 1976: "*[...] community-based research has a particularly strong Canadian history and specificity. In the mid-1970s a group of researchers based in Toronto and associated with the Ontario Institute for Studies in Education and the International Council for Adult Education created a group called the participatory research project. Hall, Jackson, Marino, Barndt, Conchelos and others had a variety of community-based research experiences in Canada and other parts of the world.*" [30].

A kind of "formalisation" of a university-community relationship in Canada can be traced back as far as in 1970, when the newly funded UQAM University (Université du Québec à Montréal) created the SAC (*Services aux collectivités*) mechanism, inscribing service to the community at the heart of the missions of university. Education, and its role in social emancipation, is strongly valued in Canada, particularly in provinces like Québec, that went through its "quiet revolution" in the 1960s, during which the education level soared.

The SAC philosophy soon spread across universities in Québec, with more or less commitment, but it signalled the beginning of the mainstreaming of the idea that research should contribute concretely to improving the lives of Canadian communities. Pierre Elliot Trudeau, at the time Prime Minister of Canada, initiated a policy of "cooptation" of citizens groups by giving them subsidies, which enabled many young scientists to develop field experience in link with communities.

The development of research – if not participatory - in line with society's concerns, and its formalisation, continued in the 1980s, with the creation of federal and national mechanisms, such as the "actions concertées", to take again the example of Québec: the government jointly identifies and defines, together with community, cultural and industrial groups, research and innovation needs, and invites researchers to submit proposals under this specific theme. This programme, which still exists, aims at "*fostering networking between groups that have research needs and researchers, ensuring a continued transfer of knowledge and maximising the usefulness of this research.*" [31]

Also in Québec, "Centres de liaison et de transfert" were created 15 ago. This intermediary structure gathers all actors active on a given issue, on a sectorial basis (e.g. forest management), orders research projects and follows through the implementation of their results on the ground.

The final step towards institutionalization occurred when granting councils opened themselves to the possibility of supporting research partnerships and funding the maintenance of their infrastructures. This was the case in Québec in 1992, when the then Québec Social Research Council invited researchers to constitute partnership teams in the health and welfare field.

In 1999 the CURA programme (see Part II.C) was launched by the "Social Sciences and Humanities Research Council of Canada". SSHRC is the governmental structure that determines research priorities and agendas in the field of social sciences, at the federal level. It does so according to its own reflection, but also with the input of interest groups on a given theme (e.g. social cohesion). In 2005, the director of SSHRC, Marc Renaud at the time, noted that, "*with nearly 9% of its budget going to support various forms of partnership research, SSHRC was leading the way internationally in this field.*" [32]

The success of the CURA model and the interest it has generated throughout the world has resulted in the rise of a unique meeting space called the Community-University Expositions (CU Expos), which have now taken place in Saskatoon in 2003, Winnipeg in 2005 and Victoria in 2008.

30. Hall, B.L. (2005) In From the Cold? Reflections on Participatory Research 1970-2005 in Convergence 38(1) pp 5-24

31. http://www.fqrsc.gouv.qc.ca/fr/subventions/programme.php?id_programme=8
32. RENAUD, Marc (2005). La recherche communautaire: Qu'avons-nous appris? Où allons-nous? Presented at the CURA-SA evaluation session at UQAM, Montréal, 7 June 2005, 20 p.

Research investments in Canada

In 2007, overall research expenditures in Canada reached an estimated **$29 billion**. Six sources are responsible for this investment: the federal government, provincial governments, businesses, universities, not-for-profit organizations and foreign entities. With the exception of foreign entities, each sector plays a role both as a funder and as a performer of research activities in Canada.

The **private sector** is the primary funder of R&D activity in Canada. In 2007, it invested an estimated $13.8 billion in R&D, representing 47.8 percent of overall research investments in the country. Of this funding, approximately 93 percent is directed to research performed by the private sector itself. However, the sector also invested $881 million (6.4 percent of its expenditures) in university research.

The **federal government** is the second largest funder of research in the country, with estimated investments of $5.4 billion in 2007, or 18.8 percent of Canada's overall research funding. The lion's share of its investments in R&D is concentrated in two primary areas: research conducted by departments and agencies of the federal government ($2.3 billion) and research performed by universities ($2.8 billion). [...]

Universities are also major supporters of research, funding an estimated $4.8 billion in 2007, or 16.4 percent of overall research investments in the country. This contribution is based on an estimation of the dollar value of faculty time spent on research, unfunded institutional costs (or "indirect costs") for both externally sponsored research and unsponsored research.

Provincial governments and the not-for-profit sector also contribute to overall R&D investments in Canada. In 2007, provincial governments provided an estimated $1.5 billion in research funding (5.1 percent), while the not-for-profit sector contributed approximately $850 million (2.9 percent). More than 70 percent of provincial funding for R&D is invested in universities. Twenty percent is spent on research activities conducted by provincial departments and agencies, and the remaining portion mainly supports research performed by the private sector. Almost all not-for-profit funding for research (about 95 percent) is directed to universities, while the balance is used for intramural research activities. [...]

Over the period from 1992 to 2007, combined investments by the six sectors profiled increased at an average rate of 4.5 percent annually in real Canadian dollar terms to reach $29 billion in 2007. Investments increased by 93 percent overall over the period.

Source: Association of Universities and Colleges of Canada, Momentum: The 2008 report on university research and knowledge mobilization

Before ceasing to be an experiment and being "officially" endorsed by SSHRC in 1999, Participatory Research has been a vibrant field for years in Canada, and formalised – or "informal" - Participatory Research is not limited in any way to participants to the CURA programme. As this expanding field generates increasing interest internationally, it is also carried out and actively supported by more and more universities, that set up official structures to support and promote this kind of research. Already 20 universities and research networks are part of the Pan-Canadian Coalition on Community Based Research. The growing interest in the Canadian university-community partnership model of research led to the creation of The Global Alliance on Community-Engaged Research, on May 5th 2008, by representatives of university, networks and civil society organizations at the 2008 Community-University Expo Conference in Victoria, BC, which brought together over 600 people from 14 countries and was hosted by the University of Victoria. This structure has the vocation to provide existing and emerging national and international networks with a space for systematic exchange of experience and for collectively building tools to measure the impact of Community-Based Research on communities and policies[33].

2. Knowledge Mobilization

The recent rise of Participatory Research models, and their institutionalisation, is also linked to changes in the way knowledge is produced, and to policy-makers who, in order to take into account these changes, have coined new concepts that assign new roles to science and to research results.

Interdisciplinarity and trans-disciplinarity have become a focus in their own right with the rise of problem-based approaches, and have led to new modes of research being supported, at the intersection of different disciplines. Researchers are more and more trained to research problems and issues in greater depth and to explore them in more global and holistic way. In particular, the work with aboriginal communities, who have a more holistic approach to problems and a different way of organising knowledge, has had a significant feedback effect on the way university "institutionalised" knowledge should be re-organised to be more relevant to solving problems. But while Participatory Research has fostered the development of interdisciplinary research, the reverse is not necessarily true. The nature of universities and

33. http://web.uvic.ca/ocbr/networking/index.html

research centres social connections depends on the missions and priorities that universities set up for themselves. If "old" economics, sociology, political science or psychology are seen nowadays as somewhat socially disengaged and self-referential, and tend to be supplanted by new fields with more regular social contacts outside university, such as management studies, organizational behavior, human resource management, etc., this evolution is mostly driven by a entrepreneurial-type focus on research generating revenue, and by the increasing influence of corporations on universities, in Canada like elsewhere.

In policy terms, the overarching concept that fuels and supports the development of partnerships in research is "Knowledge Mobilization" (KM). This notion is increasingly becoming the overarching concept for all strategic research in Canada. In 2007, the Social Sciences and Humanities Research Council of Canada (SSHRC) has established a specific department, the Knowledge Products and Mobilization Division, in charge of integrating KM in all strategic programmes.

Recognising that knowledge and potential research capacities exist beyond universities, and encouraging the co-production of knowledge, KM "*refers to the actions that build on the philosophical belief that knowledge has greater value when shared and implemented. In a knowledge society; data, information and knowledge must be available to those needing it, in a format that they can use, in a timely manner, so as to affect decisions and actions. This must be supported by infrastructure, incentives, and rewards for those engaging in this process*"[34].

But, like all successful concepts, KM is multidimensional, and has many definitions. Some, like Peter Levesque, one of the creators of the CURA programme, put the emphasis on the dissemination of research results, and on the transfer of adequate and relevant knowledge from practitioners and researchers to decision-makers. In his words: "*The adoption of knowledge mobilization is a reference to the complex and emergent process that has arisen from an equally complex knowledge production process that has failed to consistently move the most credible evidence from practice and research into improved outcomes. It also refers to activities that create and support the conditions and culture that lead to effective (and when possible, efficient) access, implementation, utilization, and evaluation*

of the most credible evidence for improved outcomes from the decisions we take. This is the "knowledge to practice" gap. It is also a result of the "information revolution" in which the "expert" is no longer the dominant source of knowledge."[35]

Others insist on the fact that the concept emphasises the value and benefits of a partnership all along the research process: from the identification of the problems to be solved, to the elaboration of the research questions, the design of the methodology, the collection of data, their interpretation, the dissemination phase, etc. In this sense, the idea of Knowledge Mobilization is to facilitate a two-way exchange of expertise. In concrete terms, while the community and government are benefiting from the research skills at a university, the researchers are also benefiting from the real life knowledge, experience, and expertise of policy makers, community practitioners, NGOs, civil society, nurses, social workers, etc.

SSHRC and CIHR, through their Research Impact initiative, have adopted a broader definition: "*Knowledge Mobilization (KM) is a suite of services that enhances the two-way connection between researchers and research users so that research and evidence can inform decisions about public policy and professional practice. KM encompasses methods of knowledge transfer, translation and exchange and extends them to include the co-production of knowledge. KM turns research into action. Knowledge mobilization (the how) enables social innovation (the what). [...] Social Innovation is the creation or application of research and knowledge to develop sustainable solutions to social, environmental and cultural challenges. Social Innovation results in more efficient and effective human services, more responsive public policies and a greater cultural understanding.*"[36]

KM is therefore a larger concept that simple "Knowledge Transfer" ("*a process whereby relevant information is made available and accessible to decision-makers for application in practice, planning, and policymaking. It occurs not only at the end of a process, project, or research study, but is also ongoing*"[37]) or Knowledge Brokering ("*A knowledge broker is an individual or an organization that engages in knowledge brokering. It links researchers and decision makers, facilitating their interaction so that they are able to better understand each other's goals*

34. Knowledge Exchange Glossary, The Provincial Centre of Excellence for Child and Youth Mental Health at CHEO, available on: http://www.knowledgemobilization.net/

35. http://www.knowledgemobilization.net/
36. http://www.researchimpact.ca/faqs/index.html
37. KE Glossary, op.cit., based on Barwick, et. al, 2005 'Knowledge Transfer & Implementation of Evidence-Based Practice in Children's Mental Health, Children's Mental Health Ontario, Toronto

and professional culture, influence each other's work, forge new partnerships, and use research-based evidence. Brokering is ultimately about supporting evidence-based decision-making in the organization, management, and delivery of health services"[38]).

KM is not a "university push" model - one that sees university researchers "pushing" their expertise out into policy-makers or civil society - but a "push-pull" model - one that sees university researchers integrating both the already-existing knowledge of civil society and/or policy-makers into the formulation of their research projects, so that the research they produce meets the priorities and needs of civil society and/or policy-makers, and has a focus on actual real life issues in the community.

Two key principles lie at the core of the KM concept: the idea that valid – even if not "scientific" - knowledge is produced by many actors outside universities and research centres, and that it is necessary to tap into this knowledge produced by different sectors of society to face the current challenges ; and the idea that research should aim at producing results that are relevant beyond intrinsic academic interest, that contribute to better policy-making and bring benefits beyond the economy field, benefits that are not easily assessed in monetary terms, or trough simple indicators. "Sharing" and "cooperation" are key features in KM.

KM is a new and emerging field, and the way that it is exercised at different institutions and universities varies. It is a work in progress, the value of which is gradually understood better through current experiences and innovations in ways of doing research.

Even if they are not easy to evaluate through simple indicators, and cannot always be assigned a precise value, economic or otherwise, the many qualitative and quantitative benefits of KM are widely recognised by Canadian governments and universities. The AUCC report states that:"*Through a research-rich environment, graduates and researchers gain problem solving, analytical and communication skills, critical thinking, adaptability and respect for teamwork. They bring knowledge to the labour market, to government and to communities by applying these skills and their expertise to tackle important social and economic issues [...] Canadian researchers are contributing to internationally acclaimed research breakthroughs, publishing their findings at proportionately higher levels than many*

other countries, and making significant progress on a number of commercialization indicators. However, while these remain useful measures of research outcomes, they provide only a partial summary of universities' contributions. The broader examination of knowledge mobilization [...] illustrates through many examples that outcomes extend beyond new products and processes to the development of new services, policies and public sector applications, and new ways of thinking and behaving. Whether these developments affect how we govern ourselves, how we approach international business and diplomatic relations, or how we educate our children, they are all of critical importance."[39]

In comparison to the EU concept of "Knowledge-based society", in practice very much focused on how can research contribute better to the competitiveness of the economy, the concept of KM is more encompassing of different forms of knowledge being produced in society and of different contributions of research to society.

3. Partnerships in Canadian universities

Like in the EU, Canadian universities are engaged in partnerships with private sector, international partners, federal and provincial governments, and to a lesser extent the not-for-profit sector, mainly in the health field (patients organisations, private foundations). But they also highlight their partnerships with communities, in which they are heavily involved, in comparison to EU countries. The AUCC stresses the importance of the diversity of these partnerships: "*Collectively, these partnerships create benefits for Canadians by solidifying the country's critical mass of research capacity, harnessing the country's collective human and physical resources and facilitating Canadians' ability to understand and address issues from a variety of angles and perspectives.*" [40]

While there are no mechanisms in place to capture comprehensively, through national data, the breath and depth of university-community partnerships and the wide range of ways in which universities engage with communities, such partnerships clearly are a blooming field. Their wide-ranging benefits are more and more documented through qualitative data (and examined in *Part IV* of this report).

38. KE Glossary, op.cit.

39. AUCC (2008), Momentum: The 2008 report on university research and knowledge mobilization
40. AUCC (2008), op.cit.

Partners range from municipal and regional governments and health authorities, local not-for-profit associations and local businesses (communities of place), groups who share ethnicity, religion, language, or other aspects of culture that draw them together (cultural communities), or national and provincial not-for-profits, particularly health charities and organizations concerned with social issues and services (communities of purpose).

Support and funding for community-university research partnerships is increasing, from three main sources: the not-for-profit sector, the federal research granting agencies and the universities themselves. Alongside the now commonplace offices in charge of improving the commercialization of research, many universities have established community-university research offices to coordinate and facilitate community-related research. The AUCC notes that "*within our universities, Community-Based Research has begun to become institutionalized. The University of Victoria in January of 2007 created the Office of Community-Based Research as a university-wide structure reporting to the Vice-President of Research. The Harris Centre at Memorial University in Newfoundland serves a similar function throughout Newfoundland and Labrador. The Trent Centre for Community Education, the Institute for Community-Based Research at Vancouver Island University, the Community University Partnership Programme at the University of Alberta, the Centre for Community-Based Research in Kitchener, the Centre for Community Research, Learning and Action at Wilfred-Laurier University in Waterloo, the Services aux Collectivités at UQAM and others have sprung up across the country.*"

The not-for-profit sector, and communities at large, have often provided funding for the initial construction and establishment of such centres and, and qualified people to participate in the programmes. They also often contribute financially to the particular research projects in which they are a partner, depending on the mechanism involved and on the availability – or not – of "seed funding".

Apart from such infrastructures, Participatory Research with communities is also conducted in some of the 2 000 chairs that exist in universities across the country, and which are often jointly funded by universities and the federal government.

At the level of the federal granting agencies, besides the Community-University Research Alliances (CURAs) which SSHRC has funded for now ten years (and examined in details below), the Cana-

dian Institutes of Health Research (CIHR) provides 30 percent of its research funding through 13 interdisciplinary institutes focused on different areas of health, several of which have programmes involving community-university partnerships. The Natural Sciences and Engineering Research Council of Canada (NSERC) does not have a specific programme dedicated to partnerships with communities, but does participate to common programmes with SSHRC and CIHR, that include that aspect. A joint programme of the three agencies launched in 1989, the Networks of Centres of Excellence (NCE) has also provided opportunities for local community organizations and municipalities to engage in research partnerships with universities.

Examples of Community-Based Research

A group of graduate and undergraduate students, led by a researcher at the University of Toronto, is assessing contamination levels in typical urban settings, including homes, workplaces and playgrounds. Working in conjunction with several government agencies including the Ontario Ministry of the Environment, Toronto Public Health and Environment Canada, they have focused on the presence of flame-retardant additives used to protect common household items such as furniture and electronics that also make their way into household dust. The researchers found air inside some homes contained 10 to 20 times more of these potentially toxic chemicals than air outside. The finding has prompted a call to regulate how flame retardants are used in the manufacturing of consumer goods.

Over 800,000 Canadian children suffer from social and emotional problems that interfere with their learning and development. These emotional problems often lead to mental disorders and bring with them a $14-billion price tag in health-related expenses. Simon Fraser University and the BC Ministry of Children and Family Development have been working together since 2006 to improve the social and emotional development and mental health of children in Canada. Researchers at the university's Children's Health Policy Centre provide research evidence to assist policy development on a variety of mental health issues that range from substance and sexual abuse to eating disorders to suicide and depression. The Centre is also currently working with the BC Children's Mental Health Monitoring Project, to develop mental health indicators for children.

Source: Association of Universities and Colleges of Canada, Momentum: The 2008 report on university research and knowledge mobilization

B. Two case studies of support structures to Community-Based Research in Canadian Universities

Before looking at the CURA program, it is worth examining in more details a couple of the most prominent existing infrastructures at university level, in order to catch a glimpse of the diversity of the mechanisms that support community-based research in Canada. The "Services aux Collectivités" at UQAM is one of the oldest, while the Office of Community-Based Research at the University of Victoria is one of the most recent. Falling outside the CURA programme, these examples present successful ways of having researchers or students meeting the needs and concerns of policy-makers, practitioners or community organisations. They illustrate in different ways how universities can support Participatory Research through dedicated infrastructures, and participate to social innovation.

1. The Community Services programme at UQAM

Mission

The "Université du Québec à Montréal" (UQAM) was created in 1969 as part of the network established by the University of Québec, a public university. Since that time it has come to be seen as a "people's" university, that stresses accessibility and democratization of knowledge. Since 1972, UQAM has adopted an approach of having academics work in partnership with labour, women's groups, community organizations and NGOs when carrying out research and training projects.[41]

In 1979, UQAM adopted a corporate policy of providing "community services" (SAC). Under the terms of this policy, community services officially became a third component of academic duties, along with teaching and research, and were included as such in the collective agreement with the faculty union. The university policy statement defined "community services" as: "*All university activities that promote greater democratization in ac-*

cess to and use of its human, technical and scientific resources by developing new ways of appropriating educational and scientific resources and disseminating knowledge more widely.*"[42]

Activities

The SAC works with three principal types of partners:
• Community organisations involved in a range of social issues including environmental and regional management, handing over power within organizations, housing in the Montréal down-town area, analysing and reinforcing evaluation methods in community organizations, and protecting individual and collective rights.
• Women's groups: issues targeted include women's economic security, their involvement in decision-making, distance education and the inclusion of minority women in the development of feminist thought and practice.
• Trade Unions: activities with Unions are divided into three categories: the effect of globalization, worker safety and security and work organization.

The SAC is involved in three types of partnership activities:
• *Research*: from 2002 to 2005, 26 projects were started or finished with Community organisations, 26 as well with Women's groups, and 69 with Unions. On average, the UQAM and SAC contribute approximatively to 25% of the funding of projects conducted with Community organisations (for a total amount of 450 000 $ over 2002-2005), to 60% of projects conducted with Women's groups (for a total amount of 134 000 $), and to only 2% of projects carried out with Unions (which amount to 650 000 $). The rest of the funding is provided by SSHRC and Québec agencies and ministries. Per year, SAC itself has around 25 000$; 60 to 70% of this money is directly allocated to research projects, while UQAM university provides around 15 000 in indirect costs.
• *Training*: from 2002 to 2005, the SAC has organised 13 training projects, mainly with Community organisations and Women's groups. These projects received 37 000$ on average and cumulated 1 440 hours of teaching.
• *Expertise, Knowledge dissemination and transfer:* these activities, which have been given a higher profile in recent years, include public forums, conferences, books, guides, and other types of publications.

41. *Sources*:
- Vaillancourt, Yves (2005) Ph.D "La démocratisation des connaissances: l'expérience des pratiques de recherche misant sur un partenariat université-communauté" Cahiers du LAREPPS no 05-19, Université du Québec à Montréal, UQAM SAC, mars 2006, Rapport d'activités 2002-2005, http://www.sac.uqam.ca/index.aspx?ID=rapportAnnue
- LIZÉE, Michel (1998). UQAM: 25 ans de partenariat avec les milieux syndicaux, communautaires et de femmes, Présentée au Colloque sur la recherche universitaire et les partenariats, Fédération québécoise des professeurs et professeures d'université, Montréal, December 1998, 9 p.

42. http://www.sac.uqam.ca/

Organisation

Within UQAM, the SAC is an administrative unit with a staff of six to eight individuals, depending on the year. This staff includes a director as well as four to six professionals who serve as intermediaries between the research or training needs expressed by community groups and the teaching and other resources available in the University. They receive submissions form the groups, help them identify precisely their needs, to structure their dossier, identify the relevant professors and university material resources to be involved, ensure the quality of the partnership from the start and all along the process, arbitrate conflicts and facilitate the "coordinating committees". They also help with finding additional funding.

A bank of course reductions enables UQAM professors, lecturers or sessional instructors to work on training or research activities with community groups.

A Committee on Community Services (CSAC), composed of eight members representing the professors and eight representing the community partners, is in charge of evaluating the relevance of training and research projects negotiated between the SAC and the university's partners. The presence of community partners in equal number to researchers is considered as a very important aspect of the adjudication process, as it ensures that projects will be evaluated on their societal relevance.

For each partnership research projects, a written partnership agreement is established between the partners, and a "coordinating committee" (*comité d'encadrement*), consisting of representatives of the groups concerned, the teaching staff involved, and the SAC coordinator, is set up to promote the linking of community and university resources. These coordinating committees play a key role in the preparatory stage of research projects, as well as during implementation and dissemination of results.

Partners are actively involved at all stages of the research process and commit to ensure the optimal conditions for the transfer and appropriation of the research results by their community or group, and beyond.

The UQAM SAC model has been hailed as one of the most enduring and successful collaboration between social groups and academic researchers. It has carried out close to 150 participatory research projects for the last 30 years, on a great

variety of topics. According to some interviewees, it has also allowed UQAM to be several years ahead of more conventional research on emerging issues (such as environmental issues in the 1980s, or the health and environment linkage in the 1990s ; for example, two of the most recent projects of SAC concern Strategic Lawsuit Against Public Participation (SLAPP), or the hypersexualisation of young women).

2. The Knowledge Mobilization Unit and the Office of Community-Based Research at the University of Victoria

The story of the institutionalization of Community-Based Research at the University of Victoria, British Colombia (UVic) is a case in point of the rapid structuration and creativity of this (re-)emerging field, and of the value of dedicated, lasting infrastructures and staff to ensure the knowledge flow between and match the respective needs of researchers, policy-makers and community groups.

Research Impact

SSHRC and CIHR have created an Intellectual Property Mobilization (IPM) grant for universities to establish concrete knowledge mobilization mechanisms that could lead to social innovation. The University of Victoria and York University were awarded the IPM grant in 2006, and used it to conceptualize and launch the "Research Impact" project. Research Impact is "*Canada's emerging knowledge mobilization network, connecting university researchers with community and government organizations to support the use of research in decision-making about social programming, public policy and professional practice [...] Research Impact is a service-oriented programme designed to connect university research with research users across Canada to ensure that research helps to inform decision-making [...] Research Impact uses a broker model. Each institution has knowledge brokers who attempt to match the portfolio of research results to research needs in a bi-directional flow, which recognizes the needs of both government and community organizations, as well as substantial knowledge and expertise that can support knowledge creation.*"[43]

York University and the University of Victoria have used the IPM grant to pilot the development of Knowledge Mobilization (KM) Units through the Research Impact initiative. The role of these KM Units is to identify and apply research results of

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43. http://www.researchimpact.ca

interest at the community level and match researchers with policy makers in government, health, and social services agencies. The goal is to ensure that "*leading-edge academic research is employed by policy-makers and community groups to develop more effective, efficient, and responsive public policies*".

The KM Unit at UVic

The University of Victoria has institutionalized a Knowledge Mobilization Coordinator, responsible for running the Research Impact initiative and the KM Unit. In concrete terms, the role of the KM Coordinator is to facilitate, support, and document UVic research that:
• is informed by the real life needs of citizens, government, and community organizations ;
• is policy-relevant, and can be used by policy makers to better inform socially responsible and evidence-based decisions ;
• is practice-relevant, and responsive to the pressing needs and priorities of non-profit organizations, health practitioners, social workers, and NGOs.

So as to fulfill these three goals, the KM Unit promotes research partnerships in which multiple stakeholders from different sectors have a say in how research is designed and implemented. It has developed several mechanisms to support these research partnerships at UVic.

> The Research Help Desk

The Research Help Desk is a flexible model for collaboration that is offered by the KM Unit at UVic to various community groups, government branches, and NGO's. Building on the success of an initial pilot project on interdisciplinary patient charting models for youth mental health, the Help Desk soon engaged in an increasing number of projects with the Vancouver Island Health Authority (VIHA), then with the BC Ministry of Environment, and NGOs.

The Research Help Desk is a "virtual" help desk that is operated by the KM Coordinator. With this model, practitioners and decision-makers within NGOs, community organizations, health agencies, government ministries, etc. can contact the KM Coordinator to discuss the question or need that exists in their practice.

The KM Coordinator, or "knowledge broker" connect researchers and students with the decision-makers and practitioners to develop and clarify their research question, and assist with implementing a change management strategy or evidence-based policy decision.

The critical filtering step involves working with the practitioner or decision maker to refine the research question and identify specific goals. Often the questions are vague or too broad to begin with, and need to be shaped and defined in a face-to-face, collaborative process between the community/government partner and the KM Coordinator. Once a distinct research question has been somewhat defined, the KM Coordinator works to locate a researcher at UVic who has experience or expertise in the specific area in question. The relationship between the community/government partner and the UVic researcher is "brokered" and supported by the KM Coordinator.

Occasionally, the UVic researcher will already have completed research that can address the community/government need. This is more a simple case of "knowledge transfer" - the knowledge that already exists (in the form of a report, a paper, a literature review) is simply "transferred" to the community partner for their use and integration into practice.

If the researcher has expertise in the desired area, but has not completed research that answers the specific need, a new research project is ideally created. At this stage it's also important to decide what level of support the question requires, whether it's something a graduate student could handle through a literature review, or whether it would be best addressed via a new applied research project. This new research project is often a small-scale project, such as a literature review or a list of recommendations. This research is usually carried out by a graduate student. The research is, however, always a collaborative process, under the direction of the community partner. This ensures that the end product is useable and relevant to the original question/need.

The Research Help Desk is a very practical mechanism that aims at "real solutions". The key is having a knowledge broker as the portal to both organizations, who can facilitate the research process by bridging the gap between questions and expert teams.

Projects used to be funded using a 50/50 matching model in which the community partner paid for half of the research and the KM Unit paid for the other half, using a small support "seed fund", available through part of the funding granted by

the SSHRC and CIHR, two of the three federal granting agencies.

Now that the seed fund has been used up, the research projects are ideally funded by provincial government partners. The current projects that are a partnerships between the BC Ministry of Environment and UVic Environmental Studies graduate students are being funded by the Ministry of Environment. For local NGOs and non-profit groups, the KM Coordinator often works to solicit funding from funding institutes and government branches who may have an interest in the research results. This involves a certain degree of "creativity", as well as a clear understanding of what each stakeholder has to gain from the research.

> *Community Based Internships*

The KM Unit, in cooperation with the Office of Community-Based Research, is also using a portion of the Research Impact funding for 2009 to support up to 10 Community Internships for Masters and PhD students. These internships will match local NGOs and non-profit organizations with an experienced UVic graduate student to work on research relevant to their organization. These internships are four months, and are entirely funded by the Research Impact Initiative. They allow student to get hands on experience in working with community partners and also allows them to use their skills and expertise to address research that is relevant to the community.

The Community organization gets the time and skills of a trained researcher at no cost to them. The research carried out by the intern is entirely directed by the community organization.

Once the internships are complete, the KM Unit will organize a Symposium in which the student interns can present their research to all of the community partner organizations and provincial government representatives, to highlight the implications of the research work to social policy making.

> *Graduate Studies (GS) 500 Courses*

This model of engagement takes research questions form an external organization and forms a semester-long graduate seminar around them. The external organization can be governmental or non-governmental. In the past the KM Unit has worked with the Vancouver Island Health Authority (VIHA), the BC Ministry of Environment, and BC Ministry of Children and Family Development.

In the course, each graduate student is assigned a "mentor" from the external organization, and the mentor provides the student with a pressing research question to work on over the semester. Again, the research is directed by the external partner (in the provincial government courses, this would be a policy maker or research analysti ; in VIHA it is usually a nurse or social worker, or a health researcher). The class meets once a week under the supervision of a UVic professor to discuss their progress and receive lectures on topics such as gaps in translation and transfer of knowledge, building collaborative research partnerships, ethics, research methods, applying research to policy and practice, etc.

VIHA has worked with UVic on two successful courses using this model. The second run of the course was completed in late Novemer 2008. Seven graduate students were each matched up with a question coming from a practitioner in VIHA. The student then worked with the community practitioner over the semester to address the research need and develop a solution. In January 2009 two more interdisciplinary graduate courses using this flexible model started. The first course is in cooperation with the BC Ministry of Environment, with questions coming from the Environmental Stewardship Division. This course is titled "Special Topics in Applied Research in BC Wildlife, Ecosystems and Parks". The second course is in cooperation with the BC Ministry of Children and Family Development, with research questions coming from the Decision Support Branch. This course is titled "Research and Evaluation Practicum in Children, Youth and Family Services & Policies".

At the end of the semester, the students are required to have a written report on the research projects, a set of recommendations for their external partner/mentor, and to give a presentation to the external organization and any interested third parties.

The idea of these courses is to:
• give the students experience in working on real-life questions that are relevant to the community and to local policy ;
• give the external partners and mentors a piece of research that is useful and relevant to their work and to their organization.

These courses are the first of their kind in Canada, and the University of Victoria has been supportive of their implementation and administration. The instructors have been very happy to integrate the

experiences and priorities of government policy makers and local community practitioners into the content of their seminars and lectures.

The funding for these courses (which needs to cover the instructors salary) comes from the Provincial Government (currently from the Ministry of Environment and Ministry of Child and Family) or from external funding agencies (the VIHA course was funded by the Michael Smith Foundation for Health Research - MSFHR).

The course with the Ministry of Children and Family Development has used not only government policy makers as student mentors, but has also taken research questions from practitioners in their associated local NGO and non-profit groups. The course with the VIHA used research questions from many local health organizations, including homeless shelters, child mental health service providers, etc. This is a groundbreaking and promising model associating non-profit groups, policy-makers and researchers in the definition of the research needs and questions.

These three models have been particularly successful in integrating research needs and priorities form the community and the government into the university, but the KM Unit is invovled in several other activities, such as a Working Group on Housing and Homelessness, or the development of an Aboriginal Health Research Database.

The idea of the KM Unit is, as much as possible, to facilitate a two-way exchange of expertise: while the community and government are benefiting from the research skills at UVic, the researchers at UVic are also benefiting from the real life knowledge, experience, and expertise of policy makers, community practitioners, NGOs, civil society, nurses, social workers, etc. This "push-pull" model is considered more effective, as it sees university researchers integrating both the already-existing knowledge of civil society into the formulation of their research projects, so that the research they produce meets the priorities and needs of civil society, and has a focus on actual real life issues in the community.

Among other things, future activities of the KM Unit will include further development of "cross-country KM" by engaging York research expertise with research needs in Victoria, and vice-versa, with the view of expanding the Research Impact network to more universities and communities from across Canada. It will also contribute to the building of indicators to better evaluate the im-

pact of policy and practice relevant research on non-academic decision-makers.

The Office of Community Based Research

Operational since January 2007, and officially launched in June 2007, The Office of Community Based Research (OCBR) is a permanent structure at the University.[44]

Guided by a steering committee that includes community representatives, it works with community organizations and university researchers in advancing research on topics such as civic engagement, housing and homelessness and environmental issues.

Although the KM Unit is externally funded through the Research Impact Initiative (by SSHRC and CIHR), managed by the Vice-Presidence for Research of UVic, it is now administratively "attached" to the OCBR. The KM Unit and the OCBR work together at UVic to support community engagement in a practical and results-oriented way, and to share both human resources and financial resources.

OCBR serves to facilitate and encourage partnerships between UVic researchers and Community organizations. Often, these "partnerships" are then passed on to the KM Unit to try to develop a specific research project, internship, etc. While OBCR focuses mainly on building long-term relationships with community groups, the role of the KM Coordinator is more related to short-term and very specific research projects with UVic researchers and the community or government.

The OCBR is involved in four sets of activities[45]:
• University of Victoria Programming: The OCBR supports community based research across all UVic faculties, research centres, and in the Division of Continuing Studies. It also develops curriculum and research, creates opportunities for students and facilitates community partnerships.
• Community Programming: through the organization of public education events, forums and workshops, it aims at increasing community access to UVic research, partnerships and resources. Focus areas include food security, housing, climate change and sustainability, community mapping and Aboriginal health.
• Aboriginal Programming: The OCBR supports relationships, research and community partnerships between University of Victoria and Aboriginal

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44. http://web.uvic.ca/ocbr/
45. OCommunity-Based Research Activity Report: http://web.uvic.ca/ocbr/index.html

communities in cooperation with on-campus researchers and groups.

• National and International networks: it connects national and global efforts in community-based and engaged research, community-university partnerships, policy and funding.

C. The Community-University Research Alliances (CURAs) programme

1. Description

The Community-University Research Alliances (CURAs) programme was created in January 1999 by the Social Sciences and Humanities Research Council of Canada. SSHRCC is a federal agency created in 1977 to promote and support university-based research and training in the social sciences and humanities. It is governed by a twenty-two member advisory council and reports to Parliament through the Minister of Industry. Its "Grants and Scholarships" budget ($306 million Canadian for 2006-2007) is allocated on the basis of recommendations from peer-review selection committees.

From a pilot programme to a permanent programme

The CURA programme was created as a three-year experimental pilot programme of grants to address issues arising from the effects of globalization and other forces on Canadian communities, such as urban planning, enabling participation of people with disabilities, issues facing Aboriginal communities or promoting active ageing and age-friendly communities.[46]

It was the first time that SSHRCC accepted to examine demands coming from non academic research organisations, and they had to change the rules of admissibility of expenses, and accepted to be more flexible in the management of the programme.

The interest on the first call exceeded all expectations. 178 letters of intent arrived instead of the expected 50 or 60. Until then the SSHRCC had never received so many applications to a strategic program. The senior administrators reacted and increased the number of grants to be funded from the initially planned eight to twenty-two. *The range of proposals submitted reflected both the diversity of Canadian society and the wide-ranging effects of*

globalization on communities. It showed the great demand for funding for community-university partnerships but also that a significant proportion of institutions and communities in Canada were already engaged in partnerships of one form or another. The success of the CURA programme is largely due to the fact that participatory or Community-Based Research was already an expanding field, which was meeting the "real-life" needs of communities, and in which many researchers had engaged and gathered experience about.

After an evaluation process conducted by the President of SSHRC and the Vice-president of Knowledge Mobilization, SSHRC decided in 2003 to make the programme permanent and to transform it into an ongoing strategic program. By June 2005, there were 52 CURAs under way in Canada, accounting for 4.1% of the SSHRC budget[47.] In 2009, close to 100 CURAs have been funded since 1999.

Inspiration from Science Shops

Practically, the CURA programme was a proposal from the Canadian Federation of Social Sciences, resulting from consultations among universities, community organisations, public and private sectors. Since the 1970s, the partnership research model used in Québec had spread throughout Canada, and the new vision of research in human and social sciences it carried had gained ground in many universities and institutions. But the people who designed the programme were also inspired by the experience of Science Shops in Europe: "*Community-university research is now considered a core programme activity and is a central component of the strategy of supporting excellence in research [...] The science shop movement in Europe and elsewhere had a significant effect on the thinking that went into the creation of these programmes [...] Canadian officials paid several top-level visits to science shops in the Netherlands and the lessons learned in Europe were combined [with] a long history in North American universities of 'service-learning', 'action-research', and 'service to the collective'.*" [48]

Realizing the value of research

Peter Levesque[49] recalls that, after looking at the results of several thousand research projects, it be-

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46. http://www.sshrc.ca/web/apply/program_descriptions/cura_e.asp

47. Renaud (2005), op.cit.
48. Science Shops: Knowledge for the community, Report for the European Commission, 2003. Interview of Peter Levesque
49. One of the creators of the CURA programme ; this section draws heavily on his article: See Levesque, Peter (2008), Government support and infrastructure: realizing the value of collaborative work, in *Gateways: International Journal of Com-*

came clear to him and SSHRC colleagues that their submission and dissemination through traditional peer review channels did not allow the full potential value of this research to be fully realized: "*As a result of trying to determine why so much work was not producing its full value, I began to see research as three fundamental questions: what, so what and now what. The 'what' or content of basic research is found in the data, information, descriptions, and stories that are produced using a wide range of disciplinary tools and methods. The 'so what' is related to secondary analyses, to the creation of meaning, to myriad interpretations and to the contextualization of the data, information, descriptions and stories referred to above. 'Now what' relates to the application of content within context and to the capacity for action, decision-making, and decisions that produce added value. 'Now what' leads to the production of value, most traditionally in the form of product, programs and policies. However, there is significant value to be found in the changing of perspectives, such as that which led to the improvement in the lives of women in society or of our Aboriginal populations, and greater cultural tolerance. Further value is found in the creation of new procedures and processes, whether this is within business, government or the not-for-profit sector. There is further value still, in the improvement of professional practice and in the translation of research into new people skills. The processes that assist in the realization of the value of research findings are now commonly referred to as knowledge mobilization, knowledge management, knowledge transfer, knowledge exchange, dissemination, diffusion and other related terms.*"

This means two things: that research can have value in trying to reach other goals than opening new research fields, or creating new products; and that the "traditional" way of conducting and communicating research was not adapted to these other goals. So the design of a new policy instrument to support new ways of doing research was fundamental, as was the design of a new way to conceptualize the role of science in society, and the link between research and its application. This new awareness on the side of policy-makers reflected the experience and already existing practice of many researchers on the field, as is noted by Levesque.

Goals

The CURA programme was launched with the explicit goal of helping Canadian communities to cope with the – sometimes dramatic – effects of globalization[50]: "*As globalization, the communications revolution and other forces continue to reshape the world, our communities are presented with an increasingly complex mix of opportunities and challenges with multiple social, economic and cultural dimensions. The phenomena transforming the lives of individuals and communities alike include changing patterns of employment and demands for skills in a knowledge-based economy, poverty and homelessness, an increasingly diverse social fabric, transformations in family life, changing values, young people entering the workforce, new constraints on organizations and public services, both urbanization and depopulation of rural areas, and new rules of business competitiveness. Many of these challenges are best addressed at the local and regional levels by the local and regional groups that best understand the needs of, and the factors affecting, particular communities. In addition, issues which cut across geographic boundaries are also best addressed by postsecondary institutions working closely with groups that represent particular communities of interest. In service of these goals, stronger alliances between community organizations and postsecondary institutions can be enormously effective and yield important benefits for them both*".

The purpose of the programme is to support the creation of alliances between community organizations and postsecondary institutions which, through a process of ongoing collaboration and mutual learning, will foster innovative research, training and the creation of new knowledge in areas of importance for the social, cultural or economic development of Canadian communities.

Specific objectives are to:
• promote sharing of knowledge, resources and expertise between postsecondary institutions and organizations in the community;
• enrich research, teaching methods and curricula in postsecondary institutions;
• reinforce community decision-making and problem-solving capacity; and
• enhance students' education and employability by means of diverse opportunities to build their knowledge, expertise and work skills through hands-on research and related experience.

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*munity Research and Engagemen*t, n°1, pp. 150-164. Unless indicated otherwise, all quotes in this section are from him.

50. The following parts describing the goals and principles of CURAs are based on the description on the SSHRC website: http://www.sshrc.ca/web/apply/program_descriptions/cura_e.asp

Specificities

Unlike other strategic programmes, where the research question has to be negotiated with SS-HRC, in CURAs the project partners are free to jointly define their research activities as well as the participatory arrangements under which individual researchers and research teams will carry out those activities. The researcher has to demonstrate its ability to involve community organisations. The partners should continue to develop and refine the research activities and, in addition to strengthening the original alliance, should, where necessary, also recruit new partners during the period of the grant. One of the originalities of CURAs are that CSOs can submit a letter of intent to, and become the leader of a project, responsible towards SSHRC. In practice most CURAs are led by university partners.

SSHRC expects that partners will develop the capacity to work together effectively (i.e., community

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Principles

A CURA:
- is based on an equal partnership between organizations from the community and one or more postsecondary institutions; and
- provides co-ordination and core support for planning and carrying out diversified research activities that reflect the CURA programme objectives, are centred on themes/areas of mutual importance to the partners, and are closely related to their existing strengths.

Each CURA's activities includes:
- a research component (short-term and long-term projects, action research, etc.);
- an education and training component (in the context of research projects, apprenticeships, activities credited as part of coursework, etc.); and
- a knowledge-mobilization component (workshops, seminars, colloquia, policy manuals and other publications, public lectures, etc.) that meets the needs of both academic and community partners.

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organizations will develop the capacity to shape research agendas, and postsecondary institutions will develop the capacity to work with communities).

A two-stage application process

SSHRC receives around 130 letters of intent every year, which briefly describe the project. 20 to 30 projects are usually selected at this stage. Applicants successful at the letter of intent stage are eligible for a development grant of up to $20,000. At the

letter of intent stage, eligible expenses are limited to travel, workshops, meetings, secretarial support and communication activities. Partners then have 4 months to jointly elaborate the research questions and to submit a detailed proposal. The robustness of the methodology proposed, the capacity of the researcher to involve communities, and the plans to disseminate results beyond conventional channels are taken into account. Other than that, partners enjoy a complete intellectual freedom on the issue they want to work on. It is rare that projects fail to be selected at this stage.

Duration and Funding

There are roughly 15 CURAs launched every year on average, that get $1 million from SSHRC over 5 years. Initially planed for a three years timespan, a CURA could be extended by two more years on the basis on a evaluation report after the first three years. In 2002 SSHRC decided to extend the standard duration of a CURA from 3 to 5 years. Between 1999 and 2008, SSHRC has funded a total of 107 projects (a complete list of the projects and of the areas they cover can be found in the annexes). For the same period, SSHRC received 703 eligible applications in total, 40% of which were awarded a development grant, and 15% of which were eventually awarded a full grant. As grants are generally $200 000 per year, this represents for SSHRC a total investment of $107 million over 9 years. Even though this represents a significant amount of resources, in comparison, for the same period SSHRC grants to individual scholars amounted to $785 million, nearly twelve times that of the CURA programme.[51]

An individual CURA can receive funding of up to $200,000 annually for up to five years. CURA grants are subject to:
• SSHRC's fiscal ability to provide the support;
• satisfactory compliance with the program's reporting requirements; and
• a positive mid-term (third-year) evaluation.

CURAs are expected to seek funding from sources other than SSHRC to help support their research activities. $200 000 per year are granted by SSHRC, and most CURAs managed to double this amount by collecting extra funds (e.g. from private foundations and ministries). This shows that the CURA programme is a good basis for research alliances, which are then able to find other sources

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51. *The funding and development of Community University Research Partnerships in Canada,* Office of Community-Based Research, University of Victoria, May 2009

of funding to sustain their collaboration and pro-ductivity. But the situation in Canada may be more favourable to this sort of research than in other countries.

The relatively high amount of money granted by SSHRC for 3 to 5 years is important as it allows the setting up of a so-called *infrastructure*, i.e. non-physical structure costs (human resources) for the support and co-ordination of the research teams and for carrying out some of the research activities. The infrastructure provides administrative support all along the process, help identify the right par-tners, the needs and issues to be addressed, and to bridge the gap between the "two worlds" of com-munities and researchers (the crucial importance of such an infrastructure is detailed below in Part IV).

2. Outcome and impact of the CURA pro-gramme

There is no defined methodology to assess quan-titatively the benefits of CURA projects, or of parti-cipatory research projects in general. This is mainly due to the fact that the impacts of research pro-jects on policy-making, let alone on "society" are notoriously difficult to assess. This is a domain for which it is hard to build reliable quantitative and aggregated indicators, that would do justice to the complexity of the field, although there now are specific assessment methods being developed.

This part is dedicated to the evaluation of CURA projects according to the explicit objectives of the programme, as they are described above. It mainly draws on two evaluation reports ordered by SSHRC. The tools available for these evaluations were far from perfect, and are themselves subject to a constant re-evaluation and improvement. The evaluations of the CURA programme conducted by consultancies on behalf of SSHRC attempted to assess whether the projects funded reached the objectives of the programme in terms of Edu-cation and Training, Research, Capacity-building, and Knowledge Mobilization. They also outlined the main factors of risk that could prevent projects from reaching these goals. 21 projects out of 22 filled in a specific evaluation questionnaire for the first phase (1999), while all15 projects involved in the third phase (starting December 2003 and run-ning in 2004-2005) did. The evaluations are there-fore based on a period during which CURAs were still largely in an experimentation phase.

The relationship between the partners

On the first three years of CURAs, the largest number of participants were universities. At the community level, the CURA programme is open both to CSOs (who constituted 2/3 of the non-uni-versity partners) and to local public or semi-public structures (1/3). There was a great variation in the size and composition of research teams. The bigger teams could produce more results in terms of deli-verables, but had more difficulty to meet, whereas smaller teams could more easily define and agree on common research objectives.

All CURAs included both community and univer-sity representatives in their governance structure, either through a steering committee composed of both types of partners in equal number, or through an advisory committee (that also included citizens in some cases). At least in the pilot phase of CURA (1999-2002), community organisations participa-ted less than universities in the direction of pro-jects. Only 2 CURAs out of 21 had a non academic partner as a leader.

In the 2004-2005 phase, a majority of CURAs adopted a management structure that allowed a meaningful participation of non-academic partners to the projects. Two-third of the CURAs had writ-ten agreements that detailed how the partnership would function. Experience has shown that written agreement can help preventing conflicts.

The role of community organisations in the design of the research

The role of community organisations in the re-search programme varied a lot in the different projects. In 19 CURAs out of 21 of the first phase the community, represented through the advisory committee, participated to the design of the re-search programme, establishing priorities or vali-dating orientations. There were differences in the way these priorities were presented to the adviso-ry group: in 4 projects, the steering committee see-med to enjoy a major intellectual influence ; in one project, community organisations and researchers have jointly elaborated the research questions; another project asked proposals from community organisations and evaluated them ; in another one community organisations had the task of consul-ting the constituency and formulating research questions. 2 projects were unclear about the way community organisations were involved. 3 CURAs mentioned that partnerships were improved due to the fact that researchers had seats on the board on community organisations. In one CURA, a group

also had the task of interpreting the data and determining new research priorities. This model was deemed highly successful and draw a lot of interest from the community organisations involved.

In the 2004-2005 phase, half of the research teams indicated that the participation of partners involved "higher level tasks", such as the establishment of priorities or the co-direction of research projects. Other teams indicated that partners participated mostly in the collect of data, in the dissemination of the results, and made suggestions to the research team. The roles of partners depended on their implication in the management structure, but also on their nature and skills.

Training and teaching

A high number of students could benefit from practical internships in communities thanks to CURAs. This proved very beneficial both to students and to community partners. In 2004-2005, on average and per project, 50 students participated and 6 persons were employed. Students were mostly active in the dissemination phase. But none of the

The case of the CURA on Social Economy (CURA-SE)

CURA-SE was one of the first generation of CURAs that SSHRC recognized as soon as 1999. The initital three years funding was then extended for two more years, 2003 and 2004, and again for the five next years (2005-2009). CURA-SE is a programme dedicated to forstering the development and improving the work of the Social Economy sector. Communities in Québec and across Canada are increasingly acknowledging social economy is a tool for social, cultural, political and economic development. The term Social Economy refers to a movement that is more than 100 years old. Since the 1980s, it has experienced a revival, not only in Québec and Canada, but around the world as well. This movement pursues both economic and social objectives: economic because it involves businesses and organizations that produce goods and social services, and social because the pursuit of profits is subordinate to fostering values such as democracy, solidarity, improved quality of life, and sustainable development. In 2001, the social economy in Québec involved over 7,000 businesses and organizations, employed 124,300 people and accounted for $17.2 billion in revenue. Today, it works alongside the public and private sectors and represents a significant portion of the Québec economy.

In contrast to the over 50 CURAs that SSHRC has recognized across Canada in 2005, CURA-SE has the distinction of being a consortium-type CURA: while it is administered at UQAM, it is in fact established as well in three other universities, UQO, UQAC and Concordia. Its community partners, some 40 in number, are divided functionally into five thematic partnership areas of work, called Chantiers d'activité partenariale (CAP). The "Réseau québécois de recherche partenariale en économie sociale" (RQRP-ÉS) has contributed to CURA-SE since 2005. RQRP-ÉS is one of six Canadian centres that are dedicated to partnered research related to the social economy. It coordinates research related to the social economy, along with educational, distribution, and knowledge-sharing activities. Given its size and ambition, the CURA-SE benefits from a larger grant than average ($350 000 per year, versus $200 000 on average).

CURA-SE and RQRP-ES are both jointly headed by Professor Jean-Marc Fontan of the Sociology Department at UQAM and Nancy Neamtan, head of the "Chantier de l'économie sociale". Work teams are supervised by a representative of the academic world and a representative from the field of the social economy. This same collaboration is found on governing bodies (management teams, coordinating committees, research teams, etc.). While CURA-SE and RQRP-ES have a common research focus and approach, what distinguishes them are the spheres of action of their respective work teams: CURA-SE's teams are dealing with issues related to different sectors of the social economy, while RQRP-ÉS teams work on a these issues but on a territorial basis.

The RQRP-ES consists of eight regional partnered activity groups (Groupes régionaux d'activités partenariales - GRAPs) that are set up in regions of Québec with a university. Bringing together the social economy hub and the local university in each region, the GRAPs organize their research programs in response to the locally identified social economy research needs. In the spring of 2006, RQRP-ÉS was involved in coordinating more than 20 research projects.

The five thematic partnership areas (CAPs) coordinated by the CURA-SE are: services for individuals; community housing; recreation and social tourism; responsible financing; and local and regional development. Each CAP is led by a team of two persons, one representing the academic researchers and the other the community practitioners. Each CAP is supposed to develop and implement a work plan designed not only to produce knowledge but also to transfer and disseminate it. In the spring of 2006, the CAPs were engaged in more than 50 active research projects.

In total, between 2000 and 2006, over 100 research projects were completed, which led to the publication of research findings and the organization of seminars, workshops, and conferences. These activities were carried out by more than 160 researchers and partners who are active in the social economy, from universities, research centres, and various collective businesses and non-profit organizations, mostly based in Québec, but also in the rest of Canada and many other countries like Belgium, Brazil, England, France, and Venezuela.

Sources: http://www.aruc-es.uqam.ca/ et Vaillancourt (2005) , op.cit.

projects mentioned students as one of their three priority target audiences.

Half of the first CURAs indicated that their project had a feedback effect on university teaching, in some cases leading to the establishment of new courses, and even new diplomas. But there is too few data on this. The impacts on university programmes mentioned by these 12 CURAs ranged from minor impacts (integration of research results to existing courses), to moderate (2 CURAs led to the creation of new undergraduate and graduate courses), to major (creation of a new inter-dsiciplinary diploma, new " out of campus " courses).

Research

• All expected academic deliverables (peer-reviewed publications) were produced, sometimes beyond expectation, even though there was a great variation of productivity in terms of peer-reviewed publications, with larger teams tending to produce more, but not in all cases.
• The second factor influencing productivity is the extent to which projects have a local focus versus an "external" focus. CURAs can be positioned on a continuum, beginning with those projects focused mainly of producing research results and ending with those focused on the collaboration with partners, and which concentrate their efforts on the dissemination of information and results towards the local communities. This apparent "dilemma" between answering questions of the community and contributing to publications is probably linked to the initial focus of the project in the first place, but also to the lack of sufficient funding for the dissemination phase, which in practice forces researchers to choose between focusing on their academic production or helping the CSO partners to apply the results of the research when this is relevant. A better design of the projects maximises the opportunities of this creative tension between different aims and aspects.

Building the capacity of communities and universities

12 CURAs offered direct capacity-building sessions to communities, that have greatly improved their decision-making process and their capacity to solve problems, and have enabled them to be more confident in negotiations meetings outside the CURA context. The partnerships also led to the improvement of resources and information flows within community networks. CURAs have enabled community organisations to develop sustainable relationships with one another, including ministries, local authorities at all levels of the administration and the non-profit sector. The application of research results and tools born out of the CURA research programmes also led to useful results.

Half of the academic research teams reported that they did not know explicitly whether the objectives of their community partners had been met. This is seen as source for preoccupation as it might be an indicator of insufficient communication during the dissemination phase and after the completion of the project (or even of a lack of interest).

Data show that CURAs have enabled universities to develop their capacity to collaborate efficiently with communities (including joint elaboration of a mission and its directing principles, to which all partners must agree, significant modifications to the knowledge mobilisation processes depending on the feedback from the community, collective yearly self-evaluation of the efficiency of partnerships) but, in terms of establishing efficient partnerships and formulating orientations, it seems that the capacity of communities has been more improved than the capacity of universities. It was noted that the absence of an evaluation process on this particular aspect is a lack. But universities do have improved their capacity to support participatory research projects and to meet the needs of communities.

Dissemination and use of the results

All CURAs have identified audiences to disseminate results, and elaborated tools to reach them. Audiences included: general public, service users, citizens groups, professional organisations, trade unions, ethnic communities and First Nations, service providers and practitioners, service organisations, education institutions, community groups, media, activists, academics, policy-makers at all levels of decision (federal, provincial, local), funding and regulatory organisms, and researchers. In 2004-2005, all but one of the 15 research teams indicated "academics and other experts" as one of their primary targets, ahead of community groups, practitioners, and policy-makers, informed public, community leaders, provincial governments, the media, etc. on average. But half of the projects mentioned community groups or practitioners as their number one target.

A wide variety of tools were used for disseminating the results, from reports, websites, photographic diaries, maps, videos, forums, workshops, courses, to festivals and media work. In 2004-

2005, in total, 400 events aimed at non-academic audiences were foreseen, and 250 aimed at academic audiences.

Results have been used fairly quickly sometimes, in the form of tools for the local administration, of new adult learning programmes on professional practice, in the preparation of strategic plans, to obtain funding, courses, etc.

In general projects had an impact on the social, cultural and economic policy at provincial and local levels. But this impact was stronger at "lower" levels of decision: at the local and provincial levels rather than the federal level, at the level of the community organisations rather than their funding agencies, etc. Actually having an impact at higher levels is a challenge, ad it is a potential that needs to be unlocked (see below). The explanation also lies in the fact that institutional partners are more often local or regional authorities.

The few data available shows that CURAs which have incited their audiences to participate more directly in the production of research results seem to have had to greatest impact on the application of their results by community organisations (beyond partners), and a greater influence on social policy.

In 2004-2005, in terms of self-evaluation, while most of the research teams had plans to evaluate the creation and the dissemination of their research results, few had plans to evaluate the quality of the university/community partnerships, the capacity-building effect on communities, or the impact on teaching and student employability. However, it is worth noting that evaluation reports were due only one month after partners had received the grant, which left them few time to organise themselves, and most of the report were submitted 6 months late on average. It was therefore suggested by an evaluation team that the reporting be simplified, and that SHRC should ask for a follow-up report after the termination of the granting.

Identified risks

• The main risk is the failure of the partnership to meet all the expectations of both researchers and CSOs in an equitable manner (publications versus meeting community needs). This highlights the importance of well-designing the partnership in the first place.
• There are risks of instability and failures among projects, which highlight the need for a constant and sustained commitment at least up to the result

dissemination period. A difficulty is the high turn-over among CSOs, but also among researchers.
• There are risks that not all academic disciplines do benefit from the CURA model, because of the way information is carried to some less represented disciplines or because of the selection processes.
• There remain obstacles to achieving tighter links between communities and universities: community organisations face scepticism, and few of them have been involved in the management of CURAs. Obstacles may be disincentives in universities to let partners direct the research, and the fact that subvention forms are a cultural obstacle to the participation of community organisations, as they do not reflect the reality of their functioning.

In summary

• Official evaluation reports note that CURAs are innovative and dynamic, and that the different projects have allowed to organise and implement complex and innovative research programmes, in line with their initial vision.
• CURAs have created a context favourable to the participation of students to various projects, and for them to get the necessary experience and skills to work on community-based research Community-Based Research.
• CURAs have fostered the mobilization of knowledge towards participants and strategic sectors, thanks to various tools and mechanisms to share knowledge, resources and expertise.
• Evaluations also show that CURAs have created a favourable context for the improvement of capacity and decisional processes of communities, and for their capacity to influence social and cultural policies.
• There is a strong commitment of the participants involved, who manifest a strong support to the programme and to this model of research.
• From the beginning of the programme, it was observed that the best results were obtained in institutions in which the "direction" supported the CURA project, was interested in its progress, gave a good visibility to the research teams involved and helped them gather additional funding resources. Such CURA also contributed in a greater way to the transformation of university research.

A more detailed analysis of outputs found that:
• There is no systemic data on the impact of CURAs on University Teaching Programmes.
- There is probably an optimal size for a CURA research team.
• A better design of the dissemination phase would allow the enhancement of both the receptivity of

the community involved and of contributions of CURAs to scientific endeavours in general.

• The participation to and leadership on CURAs is weaker in community organisations than in universities.

• CURAs have successfully improved the capacity of communities to take decisions and to resolve conflicts, but there is few data on the improvement of the capacity of universities to work with communities and to meet their needs.

• The potential for KM of the CURA programme is higher in local policies and practices than in the strategic sectors of higher decision-making levels.

• A closer collaboration between community partners and universities thanks to efficient governance mechanisms and structures foster a more significant mobilization of knowledge.

• Before elaborating a more global analysis of the benefits of and obstacles to Participatory Research (Part IV), we will examine the outcomes of the PI-CRI programme in France, inspired by the success of the Canadian CURAs.

Part III

Partnerships of Institutions and Citizens for Research and Innovation in France

The PICRI programme – Partnerships of Institutions and Citizens for Research and Innovation (in French: Partenariats Institutions Citoyens pour la Recherche et l'Innovation) – has existed since 2005 when the regional government of Ile-de-France launched the first call for projects. Marc Lipinski, vice-president in charge of Research, Higher Education and Innovation of the Region of Ile-de-France, introduced this new financial instrument after a one year preparation period. His approach was nourished by experiences from the Canadian programme CURA – Community University Research Alliances (see previous chapter), and discussions with Fondation Sciences Citoyennes.

This section gives a short overview over the PICRI programme - its political context, the management of the calls, the budget, the evaluation process, the implication of academic partners and CSO partners, the difficulties and barriers, the themes of the research projects, conclusions and recommendations. This very first analysis of the PICRI programme is based on numerous interviews (with the vice-president in charge of the programme, with officers at the regional government, with actors of projects), on information from websites (regional government, PICRI projects) and on the experience of Fondation Sciences Citoyennes in accompanying this programme from its very beginning.

A. Regional context

1. Political context

The Region of Ile-de-France concentrates around 40% of the public research potential of France. 68 000 researchers are employed in public and private research laboratories, over 600 000 students are studying there, and a budget of around 4 billion euros is spent every year for public research.

The current regional government defined three main objectives for research and innovation for the legislative period from 2004 to 2010:

• Stimulating creativity and the generation and sharing of knowledge
• Increasing the contact with the exterior by enhancing the dialogue between science and society in favouring mobility, and regional and international partnerships
• Facilitating the creation and development of innovating companies, notably in view of building a real " eco-region " for the inhabitants of Ile-de-France.

Moreover, the new regional government expressed a strong political will to strengthen direct and participatory democracy approaches in the region, and this in all domains.

The vice-president in charge of Higher Education, Research and Innovation stated in 2006: "*I want to provide the region Ile-de-France with the capacity to constantly enlarge its circle of knowledge. At the same time, we should provide citizens with the chance to be involved in the approach, and to clarify scientific results.*"[52]

The PICRI programme was established in 2005 and has two main objectives:
• Strengthening procedures of local and regional democracy in the Region of Ile-de-France
• Diversifying potential sources of social innovation.

In order to allow for the emergence of innovative projects of strong societal interest, the Region has thus decided to launch a call for research projects, in which selected projects benefit from a 100% funding rate by the region.

The PICRI programme encountered immediately a big success with around 50 submitted projects the first year. After four calls, more than 170 submitted and 40 admitted projects, Marc Lipinski expresses his satisfaction and his pride of having introduced an innovative financial instrument and having thus supported the realisation of numerous research projects based on an academia - civil society partnership. The projects often address uncommon research questions opening new dimensions to the work of scientists and providing results of high importance to the associative partner. However, in general, policy makers of other domains at the regional level are still little interested in the question of academia - civil society research partnerships. An exception is policy makers being responsible for regional democracy, who include questions of citizens participation and participatory democracy in their daily work. The PICRIs are thus perceived as a personal project or intention of the vice-president. They do neither create contestation nor collective reflection, just acceptance. The introduction of PICRIs did not put in question the general research policy (what can be considered as positive or as negative depending on the standpoint one takes). Taking into account that numerous CSOs and associations are already involved in diverse programmes and are accepted as important actors in many

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52. Brochure " Higher education, research and innovation. " Ile-de-France, September 2006

regional policies, one can consider that PICIRs are not "iconoclast" or bothersome at the regional level. Moreover, knowing that the PICRI programme counts only for around 1% of the annual regional budget for research and innovation, it occupies a minor position in the regional research policy.

The PICRI programme has been adopted by a second region of France, Bretagne. In 2006, the regional government launched a call entitled "*Action pour l'appropriation sociale des sciences*" (ASOSC - Action for the social appropriation of sciences). The call is introduced by the following sentences: "*In order to encourage the construction of a real knowledge society, the region thinks it necessary to play an active role in the appropriation of sciences by civil society and in the development of relations between the scientific community and citizens. Already numerous actors of civil society (CSOs, unions, citizens groups), often scattered and disposing of few means, develop their own expertise in scientific domains touching their daily life. They constitute the " scientific third-sector ", complementary to institutional research.*"

However, up to now there have been few echoes from other regions. This is partly due to the fact that the Region of Ile-de-France only did very little advertising towards the other regions. It seems also obvious that no new programmes will be launched before the next regional elections in 2010. However, the coming legislative period opens probably an occasion to further advance.

2. Financial aspects

Regional research budget

The regional government of Ile-de-France has a yearly budget for research and innovation of around 100 million euros that shall reach 5% of the total regional budget in 2010.

The major financial instrument of the regional research policy are the so-called " Domaines d'intérêt majeur " or " Topics of Major Interest ". These Topics of Major Interest projects support networks of scientists, partly with business, in targeted domains such as neurosciences, complex systems, software development, sustainable development or public health. The second instrument in volume are the " competitiveness clusters " (" pôles de compétitivité "), which are based on a partnership between international companies and SMEs, training centres and public research laboratories. In 2007 approximately 28 million euros went to the competitiveness clusters and 50 to 60 million euros

to Topics of Major Interests. This presents around 80 to 90% of the total yearly budget.

The PICRI programme endowed an annual budget of 1.5 million euros in 2008 (1.0 million euros in 2005), an amount that corresponds to approximately 1.5% of the research budget. The PICRI programme is thus far from being a major political instrument of the regional research policy. This may also explain why there was so few political debate concerning the introduction of PICRIs as a new financial instrument.

PICRI budget

The current budget allows to fund 25 to 35% of the submitted projects.

Admitted projects can benefit from a maximum funding of 50.000 euros per year, over a period of one to three years, renewable up to five years. The allocated credits can cover all kinds of expenditures - operating fees, fees for equipment, salaries including research grants for PhD students and post-graduates. These amounts seem, at least partly and in a first time, to correspond quite well to the needs and frames of common research projects between researchers and CSOs. However, according to some partners, more important amounts per project would allow for more substantial research and more ambitious projects.

What is surely decisive in the story of PICRIs is the fact that admitted projects are financed 100% by the mechanism. This is of extreme importance for CSOs since almost all of them suffer from restricted budgets.

Despite the 100% funding, the region encourages partners to find complementary funding sources in order to accomplish the project. However, projects financed by the PICRI programme find in general only few or no added financial support in the frame of traditional institutional programmes.

3. Administrative management and organisation of the calls

The PICRI call is launched once a year. The research and development department of the regional administration of Ile-de-France has well implemented the programme, which is accomplished " without indolence or ideological resistance ". PICRIs have taken their place in the daily life of the department without inciting further reaction.

There are several conditions for eligibility of the projects:
• At least one of the partners must be located in the region of Ile-de-France.
• The research partner(s) has to be a public research laboratory.
• The civil society partner(s) has to be non-profit, independent from political finality and from companies, and has to unite citizens around a collective objective of strong societal relevance.
• The societal interest of the research project must be clearly visible.
• A multidisciplinary approach must be integrated.
• The project has to be orientated on a research topic that is poorly financed in universities and research organisations.
• The partners have to set up a pilot committee that allows the common sharing of the project (at least one researcher and one civil society representative).

The vice-president and the regional direction in charge of the PICRI programme got input for the PICRI programme from the Canadian experiences of Community University Research Alliances (CURAs). One major difference in the organisational setting up of the two programmes concerns the preparation phase of the research projects. The Canadian CURA programme offers a two step submission process where the first phase consists of a so-called " letter of intent " written by the two main partners (see Part II on CURAs). The regional department tested a two-step process with the call of 2007 but was not satisfied with its running, mainly due to an additional administrative charge. The functioning and internal organisation of the regional government makes a two-step submission process - from the very beginning (launch of the call) up to the end (voting the funding of some projects) - impossible to finish within one year, and would thus prolong the delay between the conception of the project and its start.

4. Evaluation of submitted projects

Since the beginning of the programme four years ago, a total of 176 projects were submitted.

The evaluation of submitted projects starts immediately after the closing of the call and takes approximately two to three months. Under the direction of the region, a multidisciplinary expert group of around 10 to 15 persons is newly constituted for each call. Half of this group is composed of members of the scientific community, and the other half of members of CSOs. Around two thirds of the group members are renewed each year.

Each project is evaluated by two or three experts that present their conclusions to the group. The group will define the ranking of the projects according to their relevance , the educational part, the communication strategy, the quality of the implicated partners and the budget.

The research project part has to respond to criteria such as:
• scientific quality,
• solidity of the methodological approach, societal stakes,
• relevance for the implicated partners according to their field of work,
• co-production of knowledge,
• innovative character and originality of the research that will allow the academic partner to explore new directions,
• proposed agenda and budget.

The criteria for the educational part are such as:
• the implication of students and Ph.D. Students,
• the impact on higher education.

The sharing and communication of results include:
• content of actions,
• implication of partners,
• information of and interactivity with the public.

The regional government also has to ensure that CSOs that are presented as partners are " real " CSOs representing neither interests of professionals (e.g. organisations of researchers) nor of private industry (e.g. associations of enterprises). Therefore a list of criteria was developed that includes: social aim of the CSO, capacity of social innovation, mode of organisation and functioning, real finality, resources, autonomy of the structure vis-à-vis enterprises and local authorities (e.g. members of board).

Up to now, between, each year, 25 to 35% of the submitted projects were finally selected and proposed for financial support.

The suggestions of the expert group have to be approved by a vote of the permanent commission of the regional council, which unifies the elected representatives several times a year. In total the process takes around one year between the opening of the call and the final admission of the projects.

Year	Number of Submitted Projects	Number of Accepted Projects	% Submitted/ Accepted Projects
2005	54 (including 4 ineligible)	11	22
2006	26	8	31
2007	39	9	23
2008	57 (including 6 ineligible)	13	25
Total	176	41	average: 25

Number of PICRI projects per year

For the last three years the number of submitted projects for PICRI has constantly grown. The high difference in numbers of submitted projects between the first and the second year is due to the fact that in 2005 there was no specific call for projects on the popularisation of science (so-called " scientific and technical culture " in France). So numerous projects came from this domain but were not selected due to the absence of the co-production of knowledge dimension.

B. PICRI Projects

1. Themes of PICRI projects

After only four years of existence, there is an impressive number of diverse issues that are treated in the frame of the programme. PICRI projects surprise by their innovative approaches as well from a scientific viewpoint as concerning methodologies and outcomes.

Sometimes they allow scientists working on marginalised issues to pursue their research. Sometimes they help finance " interphase " subjects or pluri-disciplinary projects for which it is difficult to find funding elsewhere. Table 2 gives an overview over the themes of the projects selected between 2005 and 2008, ranging from information techno-

logies issues, environment (biodiversity, agriculture), health, migration, discrimination, music, art, to social questions, social economy, governance, ethics, and rights.

2. Shaping of the common research project

There can be either a researcher or research group or a CSO at the very beginning of a project. In some projects partners knew one another already, at least partly, from other common initiatives ; in some projects one of the future partners engaged in an intensive search of (a) potential partner(s). In all cases, creating a common basis of confidence and understanding was a prerequisite for the building of the research project. Both categories of partners shared the will to discover the " other world " and to deepen its understanding of it. What can the partners give each other mutually? What can they learn from each other? What do the researchers in their laboratories? What do associations need? Defining the " area of common interest " and the adapted methodology was also the most complex and tricky exercise in the construction process of the projects. In this regard, sharing and defining a common language was an additional challenge. For instance, farmers, consumers and scientists do not naturally share a common vocabulary and have to elaborate it.

Each project needs a project leader that takes the responsibility of the administrative and financial aspects. In the 41 projects financed since the beginning, this responsibility was taken over by 19 academic partners and by 22 associative partners, so in an balanced way between the two categories of partners.

There are three complementary and inseparable dimensions in a PICRI project:
• the research project,
• the educational part,
• the mutual sharing and diffusion of the produced knowledge.

The research project implies the setting up of a process of continued and mutual learning and collaboration that has to favour an original research and the production of new knowledge in domains that are important for the social, cultural and economic development of Ile-de-France. The education part is about favouring the participation of students and young researchers in collective research and action-research projects that will enrich their apprenticeship and help for their professional

integration. The mutual sharing and diffusion of the produced knowledge is meant to stimulate the interest of the public in allowing it to understand the stakes of scientific innovations, technical applications and social action, and to participate to debates (and choices) concerning questions.

3. Implication and appreciation of the two categories of partners

For some laboratories and scientists the participatory approach seems to be quite " natural " mainly due to the issues on which they are working. Other scientists entered totally by chance in contact with CSOs without having planned or thought about this possibility before.

Scientists of the projects underline that working with civil society organisations was or is personally very enriching. Some scientists report that they discovered somehow the motivation and the voluntary work of people in associations (as for instance in consumer associations). Highly motivated volunteers participated to meetings and to actions, giving a lot of appreciable input and without counting their time. Civil society partners propose relevant research questions for which scientists confirm they never would have thought about them. Working together with CSOs is also perceived as overcoming reductionist approaches and recreating links, including links with scientists from other fields thus supporting inter-disciplinarity between them.

Up to recently, CSOs and small associations were at the same time little interested and little integrated in reflections about research and it was almost unthinkable that they could be involved in research projects, or if so only as objects of research but not as active and decisive partners. But being engaged in certain domains such as agriculture, environment, health, social justice and others it became evident for CSOs that they had also to look at what was going on in research and technological development (the GMO controversy is the best example for this). They had to develop own capacities of expertise, often in terms of counter-expertise, and research. As confirmed by implicated scientists as well as by CSO themselves, CSO partners succeeded in staying actively involved in the projects. They were in particular satisfied when the first results arrived.

Both sides declared to have been positively surprised by the readiness of the respective partners and by the quality of their relations. In most cases, the building of mutual understanding was perceived as a very enriching and stimulating exercise for both sides.

4. Difficulties and barriers

In general, there exist strong barriers to the setting up of common research projects between scientists and CSOs.

These barriers can be:
• Scientists do not consider CSOs and other associations as serious and valuable partners for research. They doubt of their capacity to approach research issues and to ask relevant questions. They doubt that partnerships with CSOs can create win-win situations.
• Scientists focus on partnerships with enterprises. In contrast to CSOs, enterprises are constantly invited by policy makers to investigate in R&D activities. They are thus accepted and supported as research partners. And they are increasingly accepted as sources of funding for public research laboratories. CSOs cannot fund research or only in a modest way.
• The current research system does not encourage scientists to engage in common projects with CSOs. So numerous scientists express resistance.
• Since the majority of scientists does not have any experience with CSOs, they perceive the arrival of CSOs as a potential threat to scientific freedom and fear a " citizen control ".
• Projects with CSOs put in question and demand a redefinition of a whole series of historical paradigms - such as scientific excellence, objectivity, neutrality, universality, rationality - to which scientists identify in a more or less clear manner.
• In the current mode of thinking there exists a negative appreciation of academia-civil society partnerships: " This is not REAL science ". Accordingly, methods and results used in the frame of such projects are devalued.
• Directors of research departments do not want to take the risk of engaging in such projects by fear of loosing competitiveness.
• Involved scientists take the risk to be strongly criticised by their scientific community and to find themselves in marginalised positions.
• The results of these projects are often less valuable in peer-review journals.
• Career options in the scientific community are limited for scientists who engage in such partnerships.

- CSOs do not want to engage with scientists because research is not part of their central objectives.
- CSOs are not experienced with research and fear to waste time and capacities that they should use to follow their objectives.
- CSOs do not know how and where to find scientists with whom to work.
- CSOs do not have the financial resources to engage in research projects.

5. Farmers, scientists and local organic food production – one example of a PICRI project

One PICRI project shall stand here as example.

General description of the project

- *Title*: Development of farmer practices of management and selection of wheat varieties for quality organic bread in the region of Ile-de-France
- *Objective of the project*: Based on the methodological and generic research on genetic and epigenetic mechanisms that are implicated in the adaption of plants to their environment, the partners of this project seek to develop wheat varieties that are adapted to the requirement of organic farming and the specificities of soils of the Ile-de-France area and that could be valorised in short marketing chain. This project will thus allow the emergence of effective solutions for a suburban area agricultural production respecting the environment, and that are economically viable, socially equitable and of high quality in terms of taste and health.
- *Innovative character and societal stake*: Few approaches of participatory selection of plants and few projects aiming at meeting the needs of organic farming are undertaken in France or even in Europe. Accordingly, research on gustatory and nutritional quality of breads resulting from ancient wheat varieties is rare. The teams implied in the project hope to promote and to amplify this type of approach in the context of a regional marketing chain. The use of research results that serve participatory management and breeding on farms constitutes a major stake. It responds to the societal request of access to public research and of the development of equitable partnerships with all the stakeholders of the society. Impact is thus expected as well at the level of the actors of the marketing chain as of the citizens of the region.
- *Regional interest in the project*: One of the objectives of the regional government is to make of Ile-de-France " the first European eco-region ".

The marketing chain of bread wheat constitutes an important part of the cultivated surfaces and of the number of farmers of the region. It thus appears a priority for the region to privilege modes of wheat cultivation that respect the environment and produce grains and flour of high quality. The project is thus in coherence with regional policies and objectives.

- *Co-production of knowledge*: In front of the enormous diversity of genetic resources of wheat, and taking into account that the little knowledge that exists is dispersed between multiple actors, it is essential to closely associate networks of producers and consumers, processors, and laboratories of public research to build collective research and innovation in the fields of wheat selection and management.
- *Educational part*: Within the institutional research laboratories, a master training course is envisaged the first year, which will be followed by a thesis on the mechanisms implicated in the fast adaptation of plant populations to environmental changes. In addition, the partner teams are very implied in the welcoming of students in training courses and in teaching.
- *Dissemination part*: The partners plan publications of scientific articles in international journals, presentations in scientific conferences, campaigns towards the general public including stands at the places of sales. Furthermore, popularisation articles will be published in agricultural and agro-alimentary journals related to organic agriculture. All results will be presented during a final seminar.
- *Means and duration*: In total, a research team of seven persons is involved in the common project. The project receives 121.000 euros over three years.

From scientific research to the creation of new bread

How did it start? Isabelle Goldringer, geneticist from INRA (French National Institute for Agricultural Research) specialised on wheat varieties, has been working with farmers' organisations for several years. She participated to a scientific conference in 2002 where some farmers attended in the audience. When presenting her work, the farmers reacted very positively and showed a high interest for her results whereas researchers from her own domain but with a, as she considers, quite traditional approach, did not treat her work as interesting. When discussing with the farmers, she discovered a "whole world" of people "outside", who had at the same time a high interest in her work but also a deep understanding of the issue. She realised that

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the dimension of the application to the field was missing in her work. A real revelation! Since then she started to engage in projects with farmers even if these projects were sometimes rejected by colleagues from her scientific community, who considered that the only interesting partners in their domain were enterprises. On the other side the relation with the farmers helped engaging in trans-diciplinary cooperation based on the questions that had been raised by them and for which the scientists did not have answers.

Olivier Ranke is a farmer and agronomic engineer. He is one of the very few organic farmers on the territory of Ile-de-France. (There are even less organic farmers in Ile-de-France than in the rest of the country – only 0.9% against 2% in average). He is director of a large organic farm - Bergerie de Villarceaux - 60 km North-West from Paris in the nice valley of Val d'Oise. The farm produces corn, meat, and milk.

In 2003, farmers, and amongst them Olivier Ranke, created the network Réseau Semences Paysannes (Network Peasants' Seeds). Isabelle Goldringer participated to the first meetings and presented her work. The two started to discuss and realised that they had a common interest in wheat varieties. The idea of a "wheat platform" emerged, where they would perform field trials with ancient varieties. At the same moment, the Francilian (IdF) Group of Organic Agriculture launched an initiative on organic bread aiming at valorising the wheat grown in the region. This idea grew from parallel cases of agricultural products such as wine or cheese, for which territorial specificities are recognised and valorised. So why not for wheat?

It did thus not take long time to prepare a common research project when the PICRI programme was launched. But the two original partners, I. Goldringer from the INRA laboratory of plant genetics and O. Ranke for the Réseau Semences Paysannes, wanted to go further in their research. Since the question of their project was about wheat varieties and bread quality, they decided to contact a consumer organisation.

"Nature et Progrès" is an International Federation of Organic Agriculture that unifies organic farmers and consumers. When they presented the project to Jean-Pierre Anglade, president of "Nature et Progrès" Ile-de-France, he was immediately interested and consented quickly.

The preparative discussions revealed fruitful for the three partners also thanks to the capacity of

I. Goldringer to explain her work in a comprehensive and clear manner and to place it in the wider socio-economic context. The civil society partners especially appreciated that they were able to find quickly a common language. They defined the working methods together. And they stayed in constant exchange during the whole course of the project to ensure that the methods met the needs of the cultivation process and the research needs in the laboratory. Created on this occasion, the methodology is based on genetic and epigenetic search and on phases of observation of the various wheat varieties. The partners of the project seek to recreate or design plants with diversified genetic characters which limit the use of chemical inputs (nitrate, manure, ...), to create seeds which can develop their own "antibodies" to resist in time and to have all gustatory and nutritional qualities of wheat for the production of bread. In the long run, it should be possible to determine as well the best dates of sowing as the type of wheat to be privileged on the territory of Ile-de-France. Isabelle Goldringer, as one of the leading partners of the project explains: " This scientific research is only possible in collaboration with our partners from civil society, as for instance the farmers who know perfectly their ground and territory and the bakers who control the process of bread production.

The experimentation started in 2007. Olivier Ranke sowed a dozen collectively chosen wheat varieties in pieces of land of 120m2 and almost 300 other varieties in micro pieces of 20m2. The harvest of approximately 30kg of grain is used to manufacture breads.

Each partner has its field of competence and expertise that is respected by the others. They trust each other. And they talk a lot, about everything. No cleavage appeared up to now.

The more the project advances, the more a discussion about bread preparation evolves. After almost two years of work, the partners prepared bread for a first time at the end of 2008. In parallel, they worked out a grid of sensory evaluation of breads. The diverse bread preparations, accompanied by the questionnaire with the evaluation grid, were proposed to a large public during the biggest annually meeting of organic producers in France. A second event is planned for the spring 2009. The analysis of the evaluation grid, right now under way, will help to increase the quality of future bread preparations.

It is still too early to draw conclusions after two years of work since, as Isabelle Goldringer explains, the process is long and evolutionary. For example, the variety Red Bordeaux, which is a very old variety from the end of the 19th century is easily to handle in the bread production and produces a good bread. On the other hand, its yield output remains very modest. In contrary to this, the variety Renan, a modern wheat which is resistant to pathogenic factors, produces a poorly satisfying bread. Another element to be taken into account is the fact that varieties can adapt perfectly to a territory during two years, and then, because of climate changes, not correspond anymore.

Two factors are currently limiting the work that would be necessary to obtain all the results needed. Due to the restriction of the budget of PICRIs, some genetic analyses in the laboratory had to be dropped from the project. Moreover, the time frame of currently three years is not well adapted to a work with living materials such as plants especially asbreeding is concerned. The project partners will therefore demand a prolongation of further three years. The optimal length would be 6 to 8 (or even 10) years.

But what is already sure is that the partners share the impression to participate to "something useful for society". They are quite satisfied about the way the project is advancing, about the way they collaborate and exchange, and about the first results. Olivier Ranke underlines that what is really interesting is the fact to work about the totality of the project, to apprehend all its "pieces" and not only one minor part. He wishes to go for very long term partnerships.

C. Ways Forward

The interest of civil society organisations and of scientists towards the PICRI programme is clearly growing. There might be different reasons for this:
• The call for project is more and more known.
• The call opens a large field of search since it integrates all issues related to sustainable development.
• Positive feedbacks from the first projects arrive.
• Scientists recognise the benefit of such projects.
• In regard to the general financial situation of the public research sector and of associations, the amounts of funding proposed by the PICRI programme are not to neglect. In the research sector, this is especially true for the social sciences domain but increasingly also for natural sciences domains.

However, there is a whole work to do about how to communicate the concept of co-production of knowledge to scientists and CSOs.

The diversity of issues proposed in the frame of PICRI projects is probably the biggest surprise from these four years of experiences. Science lives from diversity and Participatory Research projects such as PICRIs introduce it in various ways.

One stake for the future might be to create a kind of "PICRI community". Up to now partners understand themselves mainly in an individual approach. There is the need to create an active exchange of experiences, spreading of best practices, but also to discuss the various problems and barriers partners are confronting.

Up to now the PICRI programme is one minor programme amongst others and an administrative process like the others. This is for the good and for the bad. On the one hand, common research projects between scientists and CSOs are entering "normality". They are not really mainstream but they are accepted. On the other hand, there is almost no debate on the much more far reaching possible paradigm change in the organisation and definition of science, for which PICRIs are just one constituent.

As the region points out in its brochure Higher education, research and innovation "*PICRIs represent novel public initiatives through which the Region intends to associate the research sector with the society around it. At a moment in time when sciences and techniques are not necessarily seen as catalysts fro social, human and economic progress, the question of democratic and citizen-based debate has become imperative. The PICRIs also clear the way for the diversification of research players and the means of developing scientific know-how, expertise and innovation. This strategy which, in its organised form, enhances the dialogue between the scientific community and the civil society, means that for the first time in Europe, there is actual joint generation of new know-how.*"

To begin with, he would support the creation of PICRI like programmes in other European countries or regions. Secondly, he would like to finance PICRIs with an international dimension. It is clear that experiences with PICRI projects are very young. However, these experiences teach us already a lot about what research can also be – an open and democratic tool of co-production of knowledge aiming at improving social, economic and ecological conditions.

Part IV

Benefits, Barriers and Key Principles for Participatory Research

This part attempts to evaluate the wider impact of CURA projects in a more qualitative way, and outlines respectively the key principles that make a Participatory Research project successful, and the main obstacles to remove to improve the system. These parts are based on many interviews of academics involved in CURA projects, of persons in charge of the infrastructure on the side of the community, of civil servants in charge of the CURA programme, as well as other key persons. But these parts draw on more sources of experience: mainly other programmes than CURAs in Canada, but also evaluation of other Participatory Research experiences found in the literature, which concern projects conducted in or outside Canada. A number of reports and peer-reviewed articles were therefore also used and their views, when relevant, were incorporated. They concern the evaluation of a given particular project, or more general evaluations of Participatory Research projects and mechanisms.

While written sources are of course mentioned in notes, the numerous and invaluable contributions of interviewees are not indicated in the text. It was our choice not to attribute quotes to interviewees, so that they did not feel constrained by the interview format. A list of interviewees is included at the end of the report.

A. The benefits of Participatory Research

Beyond the production of deliverables, what are the benefits of the CURA programme for the production of knowledge, for communities and for policy-makers ? There is no specific evaluation of benefits specifically due to CURA projects. But studies have included CURA projects in their evaluation of the benefits of Participatory Research. For example, the Wellesley Institute published in June 2006 a "snapshot" of Community-Based Research in Canada[53].

This report concludes that: "*Community Based Research (Community-Based Research) has evolved to become a popular new research paradigm [...] [It]*

is increasingly being recognized as important in yielding concrete knowledge and understanding that can guide policies and programmes to reduce health and social disparities. [...] Canadian Community-Based Research practitioners are actively engaged in research across a broad range of health and social issues. Given relatively modest budgets, they are extremely productive. Community Based Researchers are producing new and important knowledge that is being recognized and disseminated in the published literature and through conference presentations. In addition, their efforts have contributed to lasting impacts through programme and policy changes."

In the evaluation of CURAs, most of research teams found it difficult to evaluate the middle and long-term results of their "knowledge transfer" activities, on the social, cultural, or economic development of communities, or on policies, or on teaching methods. One third felt able to indicate an impact on public policies, another third on teaching methods and university programmes. The research teams who did work directly with the "final users" were in a better position to give a positive estimation of the impact of their work.

As noted above, it is difficult to evaluate such qualitative benefits through the construction of quantitative indicators, which are not adapted to complex processes, and which will always overlook the transformative effects of the Participatory Research experience on people, be they researchers, practitioners, or community workers. A better evaluation of the long-term benefits of Community-Based Research clearly is a condition for its further development, and is now a focus of attention among Community-Based Research practitioners and funders[54].

However, despite the data limitations, it is possible to depict the benefits of such research in broad terms, through the comparison of individual case studies on projects, and through collecting the experience of the different partners involved in CURAs. Although it is difficult to make a global assessment of the impact of Participatory Research projects on research and policy making, detailed evaluations of certain programmes and research projects often highlight a major impact on theory and public policy[55].

53. Flicker, S., Savan B. (2006), A snapshot of Community-Based Research in Canada, Wellesley Institute. This evaluation is based on a web-based survey to which 308 community and university Community-Based Research practitioners responded (out of 1000 names contacted). Given that the sample of respondents was "self-selected" and that most were from Ontario, the authors indicate that the results of this survey cannot be considered as representative nor generalized to the larger community of Community-Based Research practitioners in Canada. It is however the only existing survey in Canada, and it provides interesting indications that complement the evaluations of individual case-studies and the interviews of Community-Based Research practitioners.

54. Hall, B.L. (2009) Office of Community-Based Research, University of Victoria, "Higher Education, Community-Engagement and the Public Good: The Future of Continuing Education".
55. See for example the evaluation by Jenny Onyx of the social capital research programme carried out by the Centre for Australian Community Organisations and Management

A general aspect is the high productivity of Community-Based Research projects, both in terms of concrete outputs (deliverables), and in terms of less tangible outcomes. By the variety of the outcomes, and their relevance for different partners, Community-Based Research is deemed as "*highly productive*", "*cost-efficient*" and good "*value for money*".[56]

As there are still a number of barriers to Community-Based Research research (as we will see below), the productivity of this type of research could be increased when these barriers are removed.

1. Benefits in terms of knowledge production

In terms of tangible outputs, 73% of the participants to the 2006 Wellesley Institute survey mentioned presentations as one of the outcomes of their projects, and 52% mentioned published papers. Most indicated being satisfied with the level of productivity of projects. As far as CURAs are concerned, it was noted that there was a great variation of productivity in terms of peer-reviewed publications, with larger teams tending to produce more in most cases. But the "academic" productivity of CURAs also seems largely influenced by the initial focus of the project, whether it is more oriented towards producing research results, or towards information and concrete outcomes for the local communities or CSOs involved. These two aspects are not contradictory and a good design of the projects can maximise the mutual benefits researchers and CSOs get from a partnership.

Encouraging problem-based approaches and trans-disciplinarity

The problem-based approach which lies at the heart of CURAs and other Participatory Research projects, with its focus on providing concrete improvements, forces to address a given problem in its globality, in all its dimensions. This is a drive towards trans-disciplinarity, that it turns can lead to better policies, more relevant to the real problems and needs of people. Instead of a focus on a given technology, or on a given scientific discipline, research partnerships encourage more systemic approaches, not only because of the attention paid to the inter-related different dimensions of a problem (potential for social innovation) but also in scientific terms. This aspect makes research partnerships a key tool to better understand the links between the different dimensions of Sustainble Develop-

ment, through the examination of concrete problems.

Identifying research gaps

Participatory Research help to identify research gaps and to address needs that are not taken into account by more conventional research. It also allows researchers to work on emerging issues. Some interviewees estimate that Participatory Research projects are several years ahead of conventional research on emerging issues, thanks to working with actors who are connected to "reality". Long-term partnerships, in particular, have a potential to open new research and innovations paths (see below).

Enhancing the relevance and the validity of the results

Participatory Research requires the researcher to take account of the partner's concerns to ensure that the project is "connected" with the reality in the field. Because expert research knowledge and local knowledges are combined and because the interpretation of the results and the design of actions based on those results involve local stakeholders, best positioned to understand the processes, the results produced are considered more "valid" results than ordinary or conventional social science[57].

Improving the quality of the research

In terms of process, participatory research often helps partners to think reflexively about their work, their practices. The value of Participatory Research projects can often appear at the early stages. Community partnerships help universities to define and scope the research questions. They often generate more questions than the initial ones, and new research questions to be pursued, which can require a different methodology to be developed. The feedback of the partners on results at different stages of the research can help the researcher adjust and recast the way the results are formulated, to reflect aspects that he may have missed, and this enhances the validity of the results.[58]

Giving access to data and to the field

In terms of contribution to their scientific production, working with CSOs can give scientists access to some data that would otherwise be unavailable to them, and can even cover fields that would oth-

(CACOM), at the University of Technology, Sydney
56. AUCC report (2008), op.cit.

57. Brydon-Miller et al. (2003), op.cit.
58. Vaillancourt (2005), op.cit.

erwise be closed to the researcher (for example work with "at-risk groups").

Tap into other forms of knowledge and expertise for a co-construction of knowledge

The CSO's field expertise, which the researcher often lacks, enriches the research process. CSOs are a valuable resource not only in terms of providing data, concrete cases, financial and human resources, but also in terms of practical know-how or even theoretical knowledge, as well as the formulation of research hypotheses. It enables researchers to integrate "lay expert" knowledge in their work, to produce new knowledge in co-construction.

Enlarging dissemination of the results

Participatory Research expands the opportunities for disseminating results beyond the scientific community .

2. Benefits for CSOs and communities

Using research to move towards Sustainable Development

For Budd Hall Community-Based Research is a transformative idea: "*Community university engagement [is] a critical strategic choice for public investment if we are to be able to respond to the challenges we face today. In communities where higher education institutions exist, Universities and Colleges, the collective resources of these institutions (students, academic staff, facilities, research funding, knowledge, skills) represent the largest accessible, available and under-utilized resource for community change and sustainability that we have.*"[59]

This view echoes the experience of Peter Levesque: "*The funding of community-campus research in many ways alters the information environment. The co-construction of research questions, the collaborative analysis of results and the dynamic tension of determining how best to apply these results to the contexts in which people live produces value that otherwise remains as potential only on library shelves and in classroom desks [...] Government programs which support community-campus research may result in the triple positive outputs of providing an education, training a more engaged citizenry in the use of research methods and interpretation of research results, and producing data, information and*

mechanisms to reduce disparities and create a more equal socioeconomic environment for its citizenry.*"[60]

For the Association of Universities and Colleges in Canada (AUCC) , "*universities provide communities with access to wide-ranging and in-depth knowledge and national and international expertise that informs and addresses community challenges and opportunities in a meaningful way. As universities and communities work together on research projects, they strengthen their collective capacity to solve current and anticipated problems, while contributing both to community development and to the advancement of the disciplines concerned. The mutual benefits induced by community-university partnerships, combined with the increased funding opportunities they offer, make them a "good value for money*"[61].

Capacity-Building of CSOs

Many CSOs are dedicated to a cause, and do advocacy work. Engaging in research is a way to strengthen their advocacy with scientific expertise, and to bring legitimacy to the cause they defend. Being involved in a research partnership enables them to have a say on the way the problem is framed, on the methodology used, on the interpretation of the results, and therefore to obtain results which are more relevant for their work. Research partnerships also strengthen the capacity of CSOs to participate in future research projects. In more general terms, research can support and enhance the capacity and efficiency of some practices, and promote the best social, economic and environmental practices of some entire sectors. Research partnerships enhance the relevance of the results, and hence their potential application. By addressing "real issues and real problems", participatory research produces results and outcomes that are more socially relevant, that answer concrete needs identified by communities or CSOs, and that are therefore more likely to be applied and used. This is true for small-scale projects, and also for research on more global issues. It can also make research directly useful the needs of CSOs and communities themselves, by solving very concrete problems.

Beyond potential very practical outcomes, Participatory Research contributes to the long-term capacity-building of communities. Participatory Research often helps partners to think reflexively about their work. Vaillancourt indicates that "*despite the difficulties, cooperation between researchers and union people has allowed them over time to*

59. Hall (2005), op.cit. pp 5-24

60. Levesque (2008), op.cit.
61. AUCC report (2008), op.cit.

move forward in their thinking and to be ready to accept new messages and take a broader view. The sharing of the partners expertise enriches this reflexive process. Participatory Research allows a detailed examination of the activities of community organisations, and it helps them to adjust their practices in the field, or to validate them."[62].

62% of the participants to the WI survey mentioned increased community capacity as one of the outcomes of the projects, plans for future projects (60%), cordial working relationships (51%), new coalitions (47%) or changes in agency programming (38%). Less than 2% mentioned negative outcomes, such as increased polarization or mistrust.

Building the legitimacy of research institutions

In Canada, "community service" is often included in the mandate of universities. But their engagement in building up their local research capacity and community involvement is also a matter of self-interest. For the AUCC, "*Universities, as integral parts of their local communities, have a vital interest in the well-being, prosperity and quality of life of their surroundings. The social and economic attractiveness of the communities in which universities are located is an important consideration in recruiting and retaining faculty and students. Progress on problems of importance to their communities is thus of direct benefit to universities, as well as consistent with their mission and mandate".*

Partnerships with CSOs, by increasing the societal relevance of research, increases the legitimacy of research institutions. Research institutions still largely depend on public money, and they are inserted in communities to which they can be accountable. Another advantage is that giving students the opportunity to work on concrete and socially relevant issues may attract more young people to make a career in science. It also has the potential to enhance the employability of students.

3. Impact on policy-making

As an indication, while 52% of the participants to the Wellesley Institute survey mentioned policy documents and recommendations as one of the outcomes of the projects, 38% mentioned changes in agency programming, and 15% mentioned changes in government policy. In the evaluation of CURAs, though most of research teams found it difficult to evaluate the middle and long-term results

of their dissemination activities, one third felt able to indicate an impact on public policies.

Policy-making is the outcome of a highly complex process, for which it is notoriously difficult to assess the impact of a given factor on it. To what extent research actually contributes to policy-making is a controversial issue in itself, let alone a given research project. The effects of research on policy-making are mostly long term, and sometimes the result of an accumulation of the results of several research projects over a period of time. From this point of view, that fact that 15% of respondents to a survey mentioned that their project led to a change in government policy can appear surprisingly high.

Participatory Research projects with local CSOs are more likely to have an impact on policies at the local levels. But they can also contribute to a better understanding of global issues, there is no contradiction between addressing local problems and understanding more transversal issues, on the contrary. In or outside CURAs, it must be noted that projects which have had the strongest effect on academic thought and public policy have often been initiated and driven by "a practitioner research agenda", which often arose from a political need to defend certain community development programs.

The AUCC states that: "*Through a variety of projects and programs, community partners and university researchers are generating knowledge which is informing major decisions with long-term effects. Approaches developed through joint engagement in research, can be highly cost-effective, with benefits that extend over a long period of time.*"[63]

Improved policy-making

A number of Community-Based Research endeavours strive to have a direct impact on policy as an outcome. Some Participatory Researches models (see KM Unit at UVic) are partly dedicated to answering research needs of policy-makers, or develop innovative models in which research needs and questions are jointly determined by policy-makers and community organisations. Others do involve policy-makers from the start in the definition of research topics which lead to greater outcomes on policies.

As more and more emphasis is put on concepts like "evidence-based policy-making", research is supposed to become a source for policy-makers

62. Vaillancourt (2005), op.cit.

63. AUCC report (2008), op.cit.

even more than before. The improvement of the relevance and of the validity of the research created is a pre-condition for better informed policy-making. Participatory Research is also a good mechanism to work on emerging issues. The value of such partnerships is that they can make policy alternatives visible and challenge existing norms, broadening perspectives beyond technological approaches.

Research agenda setting

Research partnerships can open up new research and innovation paths. They encourage diversity in science, which is a key asset. The contribution of research partnerships to research agenda setting is greater with long-term partnerships. For example, many Science Shops have demonstrated the capability to influence research agenda's above the level of individual projects. They co-operate with CSOs for long periods and are thus able to articulate more profound research questions. Also, for research groups it gets possible to built on case studies to develop new methodologies and theories. Examples can be found in the development of green chemistry (in which a number of cases between Science Shop Groningen and CSOs lead to a research consortium of industry, university and ministry), or organic farming (where the Science Shop at DTU set up a long-term cooperation between the faculty and a group of organic farmers), or longer PhD programs that run at a number of universities. The articulation and reformulation of the research question in good mutual co-operation seems crucial to get follow-up scientific research[64]. In this sense research partnerships can help make visible and explore alternative future scenarios (for instance on the use of natural resources).

In general terms, Onyx notes that: "*In the post-modern world of complex ideas and shifting priorities, it is crucial that civil society be recognized as central to understanding the current discourses of government and society. The problems and issues of modern life involve many stakeholders, and an understanding of them. The development of new knowledge will necessarily be an emergent phenomenon involving dialogue and collaborative action by all stakeholders. [...] Once articulated, a discourse of University-Community engagement will inevitably lead to new insights*

and more effective programmes of research, training and policy development."[65]

Peter Levesque also stresses the feedback effect of the development of Community-Based Research on research policy-making: The CURA programme "*has had a significant effect on the administration and development of research support programs funded by the Canadian federal government and to a lesser extent on government agencies in other countries. It is also having an influence on the priorities of universities and scholarship in Canada.*"[66]

But there remains obstacles to a better taking into account of research – and of Community-Based Research – by policy makers. This is definitely an area where considerable improvement is possible, as we will see below.

4. Broadening views: Participatory Research as a transformative experience

Research partnerships do not only yield concrete benefits and outcomes. The process itself, and the overcoming of the challenges it poses, is a strong part of their value. All CSOs and researchers involved in partnerships have experienced difficulties due to their different expectations, their institutional obligations, but also because their referentials of legitimation are different. The people from CSOs involved in research projects sometimes face scepticism inside their organisations, like scientists involved in research partnerships with CSOs do.

On a more practical level, CSOs are often focused on short term goals, on making a difference, on policy impact and legislative change. They use research, but taking part in research is not seen as part of their traditional missions, and it can be difficult for them to justify spending limited human and financial resources on long-term research projects. CSOs often have to deal with multiple issues and urgencies, and their temporality is different from the one of the researcher, which can also cause frictions during a research project. CSOs and researchers also speak different languages. CSOs are not necessarily familiar with a research process, its culture, the definition of the methodology and of an object, what can be researched or not, etc. and it takes time to build a common language.

On a deeper level, research partnerships often cause identity challenges. They cause "frictions" and conflicts which are not only due to time, resour-

64. Zaal & Leydesdorff, Amsterdam Science Shop and Its Influence on University Research: The Effects of Ten Years of Dealing with Non-Academic Questions. In: Science and Public Policy, 14, no. 6, 1987, p. 310-16 ; quoted in the PERARES project

65. Onyx (2008), op.cit.
66. Levesque (2008), op.cit.

ces or institutional constraints. Experience shows that, for partnerships to be workable and fruitful, it is necessary for the individuals involved to accept a certain degree of "renunciation" to some values and habits that play a large role in defining who we are, and to which community we belong to. There is always a part of compromise involved. Almost all people involved in research partnerships insist on the value of the experience itself, for the persons that they are, and in terms on working habits. Successful partnerships entail the recognition of the other's referential, and of the displacement of one's own epistemic referential (be it based on academia or practice). It is an experience that renders people able to move form one referential to the other. Beyond the negotiation of different interests, partnerships open a space for mutualisation and intersubjectivity. At their best they appear as a process of collective production that goes with an individual and collective learning enabling different actors to acquire knew knowledge, to develop new behaviours and a new understanding of their environment[67]. The importance of this capacity to accept the questioning of one's identity is a factor that should not be underestimated, especially in times of crisis, and it has implications beyond the individual and projects levels. Most of the barriers to a greater involvement of CSOs in research are institutional, as we will see below.

B. Key conditions for successful Participatory Research projects

Although this analysis is mainly based on the experience of CURAs, it also draws upon the experience of people involved in other programmes.[68]

What lessons can be drawn from 10 years of experience of Participatory Research or Community-Based Research in Canada, from the completion of hundreds of projects involving thousands of researchers, practitioners, communities, students, policy-makers, etc.? What are the best conditions to set up? What are the key principles to ensure successful participatory research and to maximise its outcomes ?

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67. Audoux-Lemoine, C., Les dispositifs de co-production des savoirs entre chercheurs et acteurs de la société civile: formes de savoirs et engagement, presented at the Eleventh International Karl Polanyi Conference "The relevance of Karl Polanyi for the 21st century".
68. Apart from interviews, this part draws heavily on the articles of Levesque (2008), op.cit. and Vaillancourt (2005), op.cit.

1. Funding and support

Public support

The support of government has been crucial for the development of the field of Participatory Research, and highlights the key role of research policy-makers. In short, the support of government and its granting agencies attracted researchers and legitimised this type of work in the eyes of research institutions, provided funding, enabled the establishment of dedicated infrastructures.

According to Peter Levesque, an important role of CURAs was to deliver the funding and the access to *qualified individuals and data* that were lacking for all the *communities, organizations and individuals across Canada, that had been consistently interacting with colleges, universities and other post-secondary institutions in an effort to either find solutions for a range of problems affecting them: "There was a lack of incentives to attract individuals to these local problems, as well as a lack of infrastructure linking them to each other in an efficient and potentially effective way. The CURA programme provided some resources and incentives which attracted a significant number of researchers and community- based organizations. It also, given the size of the award, provided incentives to administrators in post-secondary institutions to consider such partnerships to be of value despite the reality that these efforts were outside the normal academic frame of reference."*

Levesque argues "*that the success of such programs [like CURAs] is an indicator that government support of community-campus partnerships and science and society interactions produces significant social and economic value that is currently left unrealized by traditional research modalities.*" Noting that there are some sectors where the process of knowledge mobilization "*is achieving greater success, and with greater speed, than other areas*", Levesque further argues that "*there is a correlation between existing infrastructure and incentives and the speed with which research moves into application. [...] [It] is clear to me that without some form of clear, concrete directive, which supports clear, concrete incentives and infrastructure that supports community-campus partnerships and collaborative research, it will be left to those activists, advocates and concerned academics currently involved in pushing for such to continue their quest – underwriting the costs of doing so out of their own pocket, energy and personal visions.*"

The institutionalization of Community-Based Research thanks to government intervention has also increased its "legitimacy" in the eyes of sometimes

reluctant research institutions. It has become easier for researchers to justify their engagement in Participatory Research towards their institutions. Given the significant barriers that still exist in the academic world to Participatory Research, this is an important aspect.

Realizing the full social and economic value of this new research paradigm is not only a matter of providing funding and setting up innovative programmes. As we will see below, governments and research policy-makers have a crucial role to play in altering the environment that supports the research process. If participatory mechanisms are not to remain marginal, attention needs to pay paid to the structural elements and trends of research.

To begin with, public authorities have a key role to play in supporting and promoting this type of research, and in sharing success stories. They should also encourage research institutions to give themselves an explicit mandate for community service, knowledge transfer to civil society or " knowledge mobilization". They should help them setting up dedicated structures to Participatory Research but also, more generally, provide resources to restructure their public education and research institutions to make them more welcoming and more useful to the concerns of the communities and of CSOs.

Sustained and long-term funding

Project duration and funding are often mentioned as key factors influencing the quantity of outputs and outcomes. The scarcity of funding for Participatory Research or Community-Based Research is the main barrier, and we recommend that at least 5% research funds should be dedicated to research partnerships with CSOs.

The duration for which funders are willing to fund projects is another potential problem. Both time and money are required for successful Community-Based Research. It takes time for partners not used to interact which each other to develop solid relationships and to clarify respective expectations and roles. It is therefore important that the funding be sustainable and available on the long term. From this point of view it is interesting to note that SSHRC decided in 2005 to increase the "standard" duration of a CURA from 3 to 5 years. The experience of people involved in Community-Based Research is also mentioned as a key factors for success and for the quantity of outputs.

Projects themselves do not have to be long-term (for example they can address a very precise issue, involve few partners and only last for six months) if they are set up in the framework of an infrastructure that act as place where long-term relationships can be formed, and that provides support to the different partners. Hence the value of funding an infrastructure that will allow the gathering of these different actors in one space, who will be able to dialogue not only for one day, but on the long term. This long-term dialogue is crucial to identify the real needs for the development of a given sector.

A important feature of CURAs is that the "calls for project" are not restricted to certain topics. Therefore, the needs of the actors are not identified or defined a priori. CURAs give both researchers and community partners the means to start a dialogue to jointly identify these needs. This ensures that the real needs of CSOs will be addressed, and that, in a context of limited time and resources, they will be really committed to the project from the start.

Time (and therefore funding) should be available at all the stages of the project, from the earliest stage, to carefully design the project, up to the dissemination phase, to ensure that results are applied, but that they are also taken into account in policies and programmes.

It is not only the availability and sustainability of funding which is important, but also the clarity of its allocation between the different partners, which mirrors the clarity of their respective roles in the partnership. Community partners should have direct control over the allocation of at least part of the funds, to ensure a balance in the relationship and sufficient resources for the dissemination and application of the research results. The involvement of community partners also needs to funded.

Structures and facilitators

The development of permanent structures, either (partly) funded by the university itself, or through governmental programmes, is an important development. In this respect the fact that CURAs now allow for the funding of a 5 year structure is generally seen as a good compromise, and a strong point of the programme.

All interviewees stress the importance of a dedicated "infrastructure" for Participatory Research projects. The term "infrastructure" also refers to programmes and funding that can ensure a long-term commitment of research institutions and

community organisations, and sustained partnerships, that are a key condition for the full realization of the potential of Participatory Research. In the words of Peter Levesque: "*In order to move from case studies or exceptional examples to normal streams of activity with consistent and sustained funding, it is important to have a structure for government (and institutional) policy, programming and decision-making to imagine and organize the possibilities within their particular contexts [...] Without these supporting structures, substantial value goes undeveloped, underdeveloped or lost.*"

In a more concrete way, at university level, for example, dedicated structures with dedicated staff provide an access point to members of community-based organizations, citizen associations, community advocates and other CSOs or individuals involved in the process of improving the social, environmental, health, economic or aesthetic conditions of their communities. The SAC at UQAM, the Office for Community-based Research at the University of Victoria and its KM Unit, or Science Shops in Europe, are examples of such structures, than can include CSOs as research partners and as research stakeholders rather than just "audience members".

These structures also act as brokers and facilitators all along the research process. They identify appropriate academic resources, help shape needs into research questions, ensures that the two different worlds of researchers and CSOs understand and benefit from one another, and are a place to gather and "store" experience on Participatory Research, which avoids falling into possible pitfalls and "re-inventing the wheel". One of the lessons of the different mechanisms (including CURAs) is that the presence of "development agents", "knowledge brokers", "knowledge transfer specialists" or "knowledge mobilization coordinators" is crucial to ensure the co-production of useful knowledge between cultures that have different realities, temporalities and objectives.

Need for sharing experiences

In Peter Levesque's opinion, "*one of the failures of the CURA programme has been the lack of a systematic process to bring research projects and groups together to share methods, techniques, tools, data and concepts in a systematic manner. While some of this has happened in an ad hoc manner through the Community-University Expo conferences in Saskatoon, Winnipeg and in Victoria in 2008, there is a clear role for a national body to assist in the coordination*

and sharing of resources, data and opportunity." This opinion is shared by many Participatory Research practitioners, who point out the need for more communication. A "network of good practices" would be a good starting tool for groups involved in Participatory Research to share their experience with one another.

2. The research projects

The importance of a robustly designed partnership

The areas of research and of CSO work are indeed two different worlds, which have rarely interacted with each other. Working together implies bridging the gap between these two cultures, and developing a relationship of trust. The initial stage of a partnership research project is a crucial one and should not be rushed. It should result in the construction of a precise research object and in the adoption of a clear research proposal with which both sides are comfortable.[69]

It is needed to take all the time necessary at the outset to clarify the objectives, the purpose of the research, the stages of the project, and the modus operandi. These objectives should also be kept under review throughout the course of the project to ensure that the research is not straying from them. The contribution expected from each of the partners must be made clear at the outset. Hence, it is the important to have monitoring and validation mechanisms in place with the partners at each stage of the work to keep the process from bogging down, and the partners from losing interest.

Even at this initial stage a learning process takes place. CSOs are not necessarily familiar with a research process, its culture, the definition of the methodology and of an object, what can be researched or not, etc. Partners have a certain vision of their needs, which might have changed after the identification process, and this is often already a valuable result.

Matching needs and methods

There is no "one size fits all" approach. There is a need for flexibility within projects, or a need to accept different models with a different role for different partners at each stage of the project (framing of research questions, research, dissemination, policy advocacy), according to their nature, resources and capacities. Striving for maximum

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69. Vaillancourt (2005) op.cit.; other points below as well.

participation of community partners at all levels of the research is not always the best choice. There is a balance to strike between encouraging the most meaningful participation of CSO partners and allowing flexibility to find the best setting for different situations (some of the partners might have a very low research capacity themselves, including because of time and resource constraints). Flexibility is also important to allow a certain level of experimentation.

In general terms, the needs of communities and CSOs are very broad, and cannot all be addressed by researchers or universities. Opting for the co-construction of knowledge is not always the most relevant option. Sometimes it might be enough to hire a consultant for a specific research. Sometimes actors have an "individual" need, e.g. funding, which is more a matter of organization, for which it is not the role of the researcher to deal with. Projects may more relevant when they address the needs of a whole sector (e.g. CURA-SE have worked on defining the appropriate tools to fund the social economy in Québec; a large and diverse set of stakeholders can also added value to a project[70]). At other times needs might appear very specific, but might be interesting in terms of research, and such projects may lead to results which are relevant beyond the CSO initially involved. There are therefore several ways of working to address the needs of communities, and Participatory Research projects themselves can vary widely in size and scope, from several years long projects addressing the needs of a whole sector and involving hundreds of partners, to more smaller projects involving a graduate student answering the specific question of a partner. Different models are more or less relevant to different kinds of needs, and flexibility within a given model is a necessity.

In this respect CURAs are very much a flexible model, which has allowed a diversity of experiences, with a diversity of partners. For example, while some are mainly interested in getting new tools to improve the impact of their activities, others are very careful of the way their knowledge is used and disseminated (e.g. indigenous communities). But if the framework must remain flexible, there are common principles on which all partners should agree. In CURAs, these are: the real partnership character of the research for a genuine co-construction of knowledge, training of students in Participatory Research (students must be associated and trained to work efficiently with communities

in each project), and positive outcomes for communities. All partners should be able to choose, with full knowledge of the implications, their level of involvement at each stage of the project, and should receive the necessary support and training to do so.

Agreeing on objectives, roles, and responsibilities

In developing a partnership relation, the academic and community players have to agree on their objectives. These objectives will not necessarily be the same, but they must be compatible and complementary. The goal of building a symmetrical relationship between the two groups of players must not lead to a confusion of roles. The community players will have a handle on the project and its contents at every stage of the research. But, in the opinion of Vaillancourt, "*the researcher must have the last word, since it is he who is responsible for the research and accountable for the results. The partner's contribution must be sought and assessed in light of the purposes of the research and at the various validation stages (co-construction) but it should not be left to the partner to say what goes into the research report. On the other hand, if co-construction is to be meaningful, the academics will have to submit their writings to critical review by the community players at certain key points.*"

Usually community partners pursue "political" or practical objectives, while researchers pursue their "knowledge" and academic recognition objectives. This tension is important in CURAs where the emphasis is put as much on the production of publications as on the impact for the community. "*There is a danger that the researcher will be used by the partner to provide an academic gloss for his political objectives, and conversely the danger that the partner will be used by the researcher simply as a means for gaining access to the field, for example*". With other Participatory Research models, in which a direct output in the form scientific publications is less of a priority, this tension is less present. Vaillancourt stresses the importance of trust and transparency in a research partnership between academics and practitioners: "*It is confidence of this kind that encourages each player to persevere and to hold up his end of the bargain. This demands, once again, that discussions about each member's academic, socio-economic and political agendas should be engaged openly. [Some] partners should do more to make their policy agendas known when it comes to research on the social economy.*"

70. Onyx (2008), op.cit.

Such tensions are inevitable, and the motives, expectations and interests of all partners should be discussed as openly as possible at the beginning of the project. But, according to Audoux and a lot of interviewees, the biggest value of partnerships precisely lies in the overcoming of these tensions and the potential of creativity they unlock.[71]

A governing structure that ensures collaboration all along the process

It is important that the development of the research questions, the methods and the interpretation of the findings be a collaborative process, involving both academics and community practitioners. This implies a real sharing of powers and resources between academics and practitioners. This must be reflected in the management committees and in all the the bodies that oversee the partnership research teams and their programming. This co-management at all the steps of the project is a condition for a solid partnership, even if the responsibilities of researchers and partners are different. This structure also helps to deal in a way satisfying for all partners with the tensions that can arise during the process. For example, one of the community partners may not agree with the results of the research, especially they are themselves an object of evaluation. The different relation to time can also be a problem: when data start to arrive and the analysis start, the partner can already gather new information, that shed some light on decisions he might have to take, and consider that the research should move on to new aspects of the problem, while the researcher might prefer to perform a complementary analysis. As one interviewee put it, Participatory Research can sometimes resemble trying to "photo-shoot a moving target".

It has proven useful in most projects to have written agreements that define the governance structure, the respective responsibilities of the partners, conflict management procedures, research and dissemination methods, etc. but also, if relevant, intellectual property rights and publications, research protocols, employment policy, data collection and ethics, etc. For example, indigenous communities, who have too often been victims of biopiracy by researchers, are legitimately concerned with the issue of intellectual property rights. It is necessary to develop protocols where full agreement is ob-

tained to resolve this issue of access to aboriginal data.

Training

The fact that CSOs are less familiar with research might create an imbalance. The need for training should also be acknowledged. It takes time to train people and to let the model "settle down". The rushing of this phase entails the risk of having researchers returning to their "old habits", (so they also need training) and to a mode of research with which they are familiar, which would threaten the balance of the partnership. Enough time should be allowed to give partners a sufficient capacity to engage, not from an ideological but from a substantive perspective, in deep discussions about methodologies and approaches, to deal with contention, dispute, etc. This process doesn't have to last that long if the researcher involved already has experience in working with CSOs, or if there is a dedicated structure that help the partners develop this capacity. Nothing replaces the experience base, and people experienced in process is a strong asset.

Dissemination and use of the results

Most interviewees consider that the dissemination and "transfer" stage is the weak point of most CURAs, where there exists the most potential for improvement. According to community partners, academics "*often have trouble moving beyond the dissemination stage to the actual transfer of knowledge [...] All too often [they] find that, at the end of a project, transfer planning boils down to arranging for the researchers to hold forth at symposiums and seminars in which practitioners, users and community representatives are relegated to a secondary role. It should not be beyond our creativity to find different and innovative formulas for involving community players more actively alongside the researchers*".

On the other hand, a lot of Participatory Research researchers estimate that it is not their role to valorise results "on the ground", and that this should clearly be the responsibility of the community partners. They argue that there are two sets of results: results useful for academics (in terms of publications, contribution to theory, their comprehension of society...) ; results useful for community partners and practitioners. They deem it crucial to clearly delimitate these two sets of results and to plan an autonomous dissemination of the results by each partner. In this respect, it is important for the project to select the most relevant and legitimate actor, the key persons best placed to dissem-

71. Audoux-Lemoine, C., Les dispositifs de co-production des savoirs entre chercheurs et acteurs de la société civile: formes de savoirs et engagement, presented at the Eleventh International Karl Polanyi Conference "The relevance of Karl Polanyi for the 21st century".

inate the results within their community, and for whom the results will be the most relevant.

The reason put forward by most interviewes for this weakness in the CURA model is that the funding available for this stage of the project is often insufficient, which is a barrier to innovation and to developing new tools. This lack of funding leaves community partners "in a void" because they themselves do not have the resources necessary to conduct this work (e.g. train their members to new processes).

Some researchers argue that part of the solution for a better dissemination and "transfer" of results lies in a combination of formal and informal means. Beyond increasing CURA funding for this part of the process, researchers should be able to enter another "mandate", a supporting role that goes beyond the traditional research mandate, that would allow them to work on this objective of "knowledge transfer", which itself raises new research questions, new needs for training and knowledge acquisition by CSOs, questions on how to overcome barriers. The CURA-SE teams are presently experimenting a "university incubator" that can play this supporting role towards communities. But a 6 months experience has already shown that this process is very energy and time intensive for researchers, because the needs of CSOs are continuous. Some recommend that the CURA model be "enlarged" to include another mechanism dedicated to facilitating and supporting this part of the process, in the same way that it provides an infrastructure that helps partners in the design the project, and all along the research.

C. Obstacles and ways forward

Most obstacles against the development of Participatory Research are structural and institutional: they are linked to the way the scientific community organises itself, and to current the trends affecting the research environment. Some new policies, mechanisms and tools can address some of these barriers, and in general contribute to a better engagement of civil society in research policy, but only to a certain extent.

James Wilsdon from DEMOS indicates: "*For understandable reasons, many have concentrated on the 'hardware' of engagement – the focus groups, the citizens' juries, that can give the public a voice in science policy and decision-making. But this now needs to be accompanied by a greater appreciation of the 'software' – the codes, values and norms that govern scientific practice, but which are far harder to access*

and change. These prevail not only within science, but also around it, in funding and policy worlds."[72]

All these aspects are somewhat inter-related.

1. Dedicate more consistent funding to Participatory Research

The scarcity of funding available for Participatory Research in the first place is a major barrier. Funding is recognised as both the main facilitator and barrier to Participatory Research. This situation does include Canada. Contrary to some SSHRC statements, the authors of the Wellesley Institute report note that, if the funding available per CURA project is on average three times higher than for other social sciences projects, CURAs still "*represented less than 1% of total projects funded by SSHRC*", and that "*the situation is bleaker when looking at Community-Based Research funding for health-related research [...] The Canadian Institutes of Health Research (CIHR) grants explicitly for Community-Based Research work made up 1.1% of the total of CIHR funding, but were about 1.5% of the total number of projects funded from 2001 to 2005. Indeed, the average per-project funding for Community-Based Research grants was about 25% lower than the average per-project funding for all CIHR grants. Generally, Community-Based Research tends to be funded by smaller foundation grants. As such, Community-Based Research teams are often expected to do more with much less.*"[73]

Dedicating 5% of research funds to Participatory Research is considered by most interviewees as a reasonable proposal in the short-term, and would better reflect in political and institutional terms the popularity that such programmes enjoy (CURAs have the reputation of being SSHRC's most popular programme, despite its relatively small funding). Funders should take action to raise the awareness of their staff on Participatory Research and Community-Based Research, on its benefits and constraints.

The duration of funding is often another problem. Again, the fact that the standard duration of CURAs was changed from 3 to 5 years is a strong point of the programme. Funders should commit to longer term support, in any case more than 2 years. Of course, the funding of permanent structures allowing for a permanent funding of partnerships (even if it only funds parts of research projects) is the ideal solution. The Wellesley Institute report

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72. Wilsdon, J. (2007), DEMOS, Public Engagement in Science report, european commission.
73. Flicker et al. (2006), op.cit.

estimates that "*funding fewer projects for a longer terms might lead to more sustainable change than diluting resources across many projects*".

Funding should also be available for the the preparation of projects, for initiating partnerships, as well as for the dissemination and implementation phase of the results. Funders should allow "*seed funding to offset start-up costs, recognizing that developing collaborative relationships takes time*", and ensure that the outcome phase is also well-funded.

Funding activities around Community-Based Research, not linked to a specific project, is also a condition of its development. This would chiefly concern the evaluation of Community-Based Research, networking activities for an exchange of experience, capacity-building and training of CSOs, researchers, and staff working in infrastructures.

2. Create opportunities and incentives for scientists

A lack of incentives

Scientific activity has become very competitive. The "publish or perish" treadmill is nothing new, but the pressure on scientists has even increased in the last 20 years as the scientific community was driven by their institutions and by governments to integrate the norms and values of the corporate world. Scientists have to publish, but they also have to produce "knowledge" which can be valorised in economic terms, if possible in the forms of patents.

In the Public Engagement in Science report, James Wilsdon indicates that: "*We also need to recognise the pressures that many scientists face and the lack of clear incentives to engage. Adding extra burdens to the workload of scientists, without appropriate structures for recognition and reward is unlikely to be successful, and may even discourage some from pursuing a scientific career. [...] There are serious obstacles to overcome. Systems of funding, processes of research assessment, and the softer structures of career advancement, do not provide many incentives for scientists to spend time engaging with the social and ethical dimensions of their work.*"[74]

In the same report, Jean-Pierre Alix, reflecting on the findings of a survey he conducted of 800 researchers at France's National Centre for Scientific Research (CNRS) observes that "*lack of time is*

the main reason declared by scientists for failing to invest in science-society communication, and it is a consequence of the competition for publications, for innovation… We can have recommendations at European or even state level, but the question is whether scientific institutions are giving signals or not.*"

The pressure to publish and to be competitive also drives scientists into a certain "culture of secrecy", which is contradictory with working in partnerships.

Adapt the reward structure

Mainly in the field of natural sciences, but increasingly in social sciences as well, scientists are solely evaluated according to their number of publications in "high impact factor" scientific journals. Any form of public engagement, even their compulsory teaching activities sometimes, are not valued, and even are a problem most of the time. Scientists need incentives, or at least they need not to be hindered in their carreers by biased reward systems. To address this issue, "dissemination" or "knowledge transfer" activities, and other forms of public engagement, should be made a compulsory aspect of public researchers' career development.

It is difficult to find scientists available for taking part in Participatory Research projects. In Canada, it has been a long time since the way scientists are evaluated has been identified as a major barrier to the development of Participatory Research, and there are now several initiatives aiming at elaborating recommendations to adapt the "Promotion and Tenure" system so that researchers taking part in community research activities are not penalised.[75]

74. Wilsdon (2007), op.cit.

75. See for example:
- Recognizing excellence in Community–Engaged Scholarship: Guidelines for Promotion and Tenure Decisions Prepared by the Office of Community-Based Research, University of Victoria
- Fitzpatrick, J., "Putting knowledge into practice." University Affairs (May 2008): 12.
- Budd L Hall, Office of Community-Based Research, University of Victoria, "Higher Education, Community-Engagement and the Public Good: The Future of Continuing Education" web.uvic.ca/ocbr/assets/pdfs/Higher%20Education-CJUCE. pdf
- Commission on Community-Engaged Scholarship in the Health Professions. (2005). Linking scholarship and communities: Report of the commission on community-engaged scholarship in the health professions. Seattle: Community-Campus Partnerships for Health.

Part of the actions proposed by the Office of Community-Based Research at the University of Victoria include:

• Valuing peer-reviewed contributions to the field: evaluations of community-engaged research should include a balanced portfolio of publications directed at academic audiences as well as other professional or creative activities.

• Subjecting an expanded range of professional products and creative activities to evaluation by targeted users of these materials (e.g. published academic materials, government reports, reports to aboriginal communities, programme manuals, publications for users, newsletters, educational pamphlets, documentaries, videos, patents, artistic creations and productions)

• Valuing interdisciplinary perspectives and diversity: Community-engaged scholarship can reach across disciplines (e.g. science, social sciences, medicine, arts, and humanities) and methodologies (including basic research, applied research, service-oriented research, and community based or participatory action research. It is often interdisciplinary and team-based may involve multiple authors. Roles of authors need to be made explicit and considered in the evaluation process.

• Valuing knowledge transfer and exchange by identifying specific knowledge users and promoting their engagement in the production and dissemination of knowledge. The roles of faculty in these teams need to be made explicit and considered in the evaluation process.

• Seeking and utilizing an expanded range of reviewers of the quality, significance, and impact of faculty work from targeted users (academic peers, government officials, NGOs officers, aboriginal community leaders, conference participants, academic and community awards, community members, patients, youth etc.) Individuals can provide written evaluations of the work or be involved in RPT committees as external members of a review board, or form an enduring body for review of community-engaged research.

• Recognizing appropriate time lines that relate to differences in methodologies of community engaged scholarship. They also recommend to value faculty involvement in activities that work to solve relevant social problems and issues locally, nationally or internationally or make substantial contributions to public policy.

Part of the actions envisaged are to include community members on tenure review committees, and to initiate a peer-review process for non-academic outputs.

Journals

The creation of research journals dedicated to Participatory Research is also a necessary step. Not only would it help researchers getting recognition for their work, but it would also contribute to improve the possibility to conduct a better evaluation of the benefits (and limits) of this type of research. For example, Peter Levesque, an authority in Community-Based Research work, has launched in 2008 a new journal, *Manifestation*, dedicated to Participatory Research. Moreover, consistent with the "Knowledge Mobilization" and "open access" philosophies, the pre-print articles of *Manifestation* will also open to comments from the public. The open access mode has the potential for changing the nature of science dissemination in a profound way.

The fact that traditional journals are not open to forms of research which are seen as "unconventional" is also a symptom of barriers embodied in the science culture itself. Participatory Research or Community-Based Research still suffers from a perceived "lack of rigour" in certain scientific circles. Furthermore, "*the culture of specialization in most universities rewards and praises faculty for shying away from partnerships of any kind, instead encouraging extreme disciplinary specialization*".[76]

More institutional support and openness

In practice scientists do not have many opportunities to engage with society, and those who do so can even face problems with their institutions. The lack of institutional support is often quoted as a major barrier for scientists who want to work with communities and CSOs. Institutional mechanisms need to make some room for such exchanges and partnerships, and to publically acknowledge their value. Policies but also institutional structures need to be adapted. The setting up of an office facilitating and promoting Community-Based Research in a research institution is a good step for helping scientists being protected from pressure, and for getting recognition.

While historians acknowledge that science has always been a product of its social context, and while sociologists point the need to take into account and to make use of all the forms of knowledge that exist in society, part of the scientific community still seems to consider contestations of certain technologies and demands from civil society to be involved in research as a symptom of

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76. Flicker et al. (2006), op.cit.

"irrationality" and "fear", which could only be cured by increased and better education about science. This concept of "public understanding of science" based on the "deficit model" still seems to prevail in the scientific community, and only starts to be replaced in leading institutions of science policy by a more interactive vision of science and society dialogue, coined "public engagement in science", which recognises that only a two ways dialogue between science and civil society will help to make emerge common positions on scientific issues of high societal relevance.

James Wilsdon stresses that "*we also need to rethink how we train scientists, and make sure that more opportunity to address these issues is included in degrees and postgraduate research. To what extent are the history of science, the philosophy of science, the social impacts and dilemmas of technology part of the curriculum in European universities? What signals are being sent to younger scientists about the relative priority of these issues in developing research careers?*" [...] "*Exhortations to engage are not enough; more must be done to develop appropriate skills for researchers to dialogue and interact with civil society actors.*"[77] These comments are also relevant as far as training scientists to working in cooperation with CSOs is concerned. That is why it is important, in CURAs like in other mechanisms, to involve students in Participatory Research projects (the GS500 course at UVic is a good example).

As Wildson puts it: "*How do we reach a situation where scientific "excellence" is automatically taken to include reflection and wider engagement on social and ethical dimensions? Such expectations cannot be externally imposed. If they are to take root, they must be nurtured by scientists and engineers themselves.*"[78]

This raises an important question, that all scientists involved in Participatory Research have encountered: to what extent is the scientific endeavour compatible with engagement ? The first mission of the scientific community remains the development of science. Scientists involved in Community-Based Research cannot avoid a theoretical reflection on their own practices, on what their "engagement" means. It is not enough to only consider the outcomes for community partners as important. All scientists need to keep a critical distance towards their own work, and to ask themselves what "research for society" really means. What type of society in the first place ? And

what should be the place and role of scientists in this ? Such questions need to be debated openly within the scientific community, in universities and research institutions. Such a key debate cannot be bypassed or oversimplified in terms on orthodoxy/heterodoxy (if not "heresy"). Most interviewees estimate that there are reforms to carry within the scientific project, at least in its current form.

These comments are of course reflected in Europe, as formulated in the PEIS report by James Wilsdon: "*Scientists need more regular opportunities to talk about the choices they are making, the assumptions their work reproduces, and the purposes to which it might be directed. Whether it is the prospect of a new generation of nuclear power stations, the convergence between nano and biotechnologies, or novel forms of human enhancement, our capacity for innovation will continue to present us with dilemmas as well as opportunities. It is our belief that the future of science and technology in Europe rests as much on giving scientists and engineers the freedom and incentive to renew the governance of their institutions and practices, as it does on policy frameworks and R&D targets.*"[79]

Such projects seem to contradict the reforms being pushed on universities by a lot of governments, in Europe and elsewhere, in which "competition" often appears as an end in itself.[80]

3. Strengthen CSO interest in research

It is not only scientists who need to experience a shift in their culture, but CSOs as well. Most CSOs focus their limited resources on their core mission or on the services they deliver. Having long term objectives in mind, they are often obliged to focus on short or mid-term efficiency, and have few spaces for reflection on their own practices.

CSOs are themselves "learning" organisations. They are increasingly recognised as major actors in expertise. But if they want to go further and engage with research, they have additionally to develop a "culture of research" - which is complex and not done in a day. Getting engaged in research can be strategic for CSOs. It is not only a matter of capacity-building but also of working in new ways, and of reflecting on its own orientations and actions. Indeed, the participation to research projects can

77. Wilsdon (2007), op.cit.
78. Wilsdon (2007), op.cit.

79. Wilsdon (2007), op.cit.
80. Budd Hall has developed some interesting reflections on the compatibility of the scientific institutions that universities are with Participatory Research processes. See: Hall (2005), op.cit.

help CSOs to improve their practices and to develop new tools.

However, concerning the "research world", lack of trust, and the difficulty of communication and mutual understanding are major problems. Numerous CSOs use already research results and punctual direct contacts with scientists as a helpful mean in their everyday work and to reach their strategic aims. But up to now few shared common research projects. And when big NGOs might more easily be able to mobilise resources to go into such projects, it is more difficult for smaller organisations, who often lack a solid resource base, and so for research partnerships. For CSOs getting engaged in research also means to take the time and to make the effort to identify the needs of their sector and to build their own research agenda. The few who did so will play a key role in the future in bringing in other CSOs, that, for now, do not see any point in getting engaged in research.

Part of the problem lies not within CSOs themselves, but within their funding structures. Funders often commit to support concrete projects, which are expected to deliver results and to "make a difference" in a one or two years period. They are often keen on supporting new initiatives. This makes it difficult to "re-invest" in the development of a given organisation and to participate to research projects.

Last but not least, numerous NGOs do not consider research policy as a target, even though they may spend a lot of their time and energy addressing issues directly linked to research and research policy decisions made years ago. There is "an important role for both protest and participation: Direct clashes can help to mobilise people, but the idea of upstream involvement is to try and also put a positive agenda onto the table at an earlier stage."[81]

4. Link to policy change

A review of participatory processes indicate that: "*While there has been important emphasis on the development of participatory methods and tools in both northern and southern settings, there has been much less reflection on how these are located within broader policy processes and how those invol-*

ved in participatory events are linked to wider policy networks and processes of policy change."[82]

The contribution of Participatory Research projects to policy-making on the one hand, and the participation of civil society and citizens in research policy (the "governance" debate) are not separated issues. Though the scales and mechanisms are different, the tools available must be seen as part of a continuum, that goes from attempts at better informing policy-makers of local people's realities, needs and priorities, to finding new ways in which civil society directly participate to policy-making. To a certain extent, it can be seen as a matter of "scaling-up".

In this part we focus on the more practical side, on what tools can be used to ensure that Participatory Research projects do contribute to better-informed policy-making.

While not all Participatory Research projects have policy implications, in a lot of them, ensuring a link with policy-making is crucial. This link with policy has been identified as one of the weak points in the CURA model, an aspect where there is a lot of room for improvement. Part of the problem is that few funders are interested in funding also this part of a research project. Researchers themselves have other priorities, which are to disseminate their results through the traditional academic channels. CSOs are the partners most involved in this phase of the project, but have to rely on their own resources and on traditional advocacy.

Part of the solution lies in no less than changing culture and behaviours in public institutions. The debate over the "democratic deficit" has encouraged public institutions to acknowledge the value and the benefits of the shift from "representative democracy" to "participative democracy", and has led to attempts at setting up new tools for engagement. But much remains to be done. Policy-making is a complex process, subject to many influences, including the habits and culture of public institutions. The link with policy and "traditional" research itself has been perceived as weak, and has led to calls for "evidence-based", or "evidence-informed" policy-making.

A 2008 EU report on "Scientific evidence policy-making", born from a process initiated by the Commission, rightly stresses "*the importance of strengthening dialogue between policy-makers and*

81. The Public Value of Science - Or how to ensure that science really matters, James Wilsdon, Brian Wynne, Jack Stilgoe, Demos, 2005

82. Holmes, T., Scoones, I. (2001) "Participatory environmental policy processes: experiences from North and South" , Participatory Learning and Action 40 p. 76

researchers in order to maximise the policy-making impact of projects in the social sciences which are funded within the Framework Programmes". It notes that *"there are contextual, cultural and structural obstacles which need to be overcome in order to achieve the levels of ongoing dialogue and collaboration which are necessary".* As a way forward, the authors indicate that if DG Research *"has a key role to play in ensuring that project results are disseminated across the European Commission and inform policy-making at the highest levels"*, projects coordinators *"should include partners from the world of policy-making in their project team and engage with the broader public in order to ensure that the subject chosen as well as the scope of the research, respond to defined policy-making priority areas"*[83].

But focusing only on *"strengthening dialogue between policy-makers and researchers"* would be simplistic, and would amount to entirely missing the point.

The calls on the part of governments for systematic and well-based evidence reflects the rapidly changing and more complex character of the society with which they have to deal. Policy-making is a challenge which requires foresight, accurate knowledge and rigorous analysis: *"the relationship between research evidence, on the one hand, and policy and practice, on the other, is not a simple or straightforward one. In much the same way that innovation is now seen by most social scientists as a non-linear process, so the production of scientific knowledge is closely interlinked with user perspectives. The varied sources of evidence which government draws on will, therefore, inevitably have been shaped to some degree by the different institutional interests, values and discourses of those who produced and commissioned them. Establishing the quality of research evidence is a key item on any future agenda. A second key factor, which is related to the first, concerns the range of evidence to which policy makers need to gain access."*[84]

"Establishing the quality of research" does not mean separating "good" or "sound" science from "bad" or "crappy" science, it means basing decisions on plural and diverse sources, which take into account the views of different actors. It is not either a question of choosing between "science"or taking into account the views of civil society.

James Wilsdon from DEMOS unfolds this false dilemma very clearly in: *"Another part of the science and society landscape that is changing is the relationship between scientific expertise and public knowledge in policy-making. In recent years, governments have placed greater emphasis on both 'evidence-based policy' and 'openness and transparency.' The former pushes for decisions based upon the best available (i.e. expert) knowledge. The latter requires a degree of participation from stakeholders and members of the public. Policy-makers then try to iron out the apparent contradictions in this by suggesting that public and stakeholder engagement provides another addition to the body of evidence. This is a welcome move, but it misunderstands the value of public engagement. [...] As with science, public knowledge should not be seen just as a body of evidence. [...] Evidence-based policy should be designed not only with the process of 'policy making' in mind, but also in ways that take account of citizens. The European Parliament, national parliaments and their various committees should seek out diverse forms of evidence informed by social research and deliberative processes. Within the EU's framework programme, new 'social platforms' should be encouraged along with innovative instruments for presenting and debating the results of research and deliberation."*[85]

Of course, participatory processes are important by themselves: *"[They] have the potential to improve the quality of decision-making and increase the likelihood that policy formulation and implementation will be more legitimate, effective, efficient and sustainable. [Participatory processes] can provide an important learning experience to policy-makers, leading to a change in belief and behavior through interaction with citizens."*[86]

But they should not be separated from the policy processes. That is why CSOs should be involved from the start of the policy process, in the definition of problems and in their framing. Launching Participatory Research projects on policy-relevant themes, with the active involvement of policy-makers, is a potential solution. One of the ways forward is to ensure that the knowledge and "expertise" of civil society contributes to the expertise on which policy-makers base their decisions, and which should be plural.

Part of the limits of past "Science and/in Society" activities were the marginalisation of participatory initiatives, in two senses. First there seems to be a limited interest and take-on of the activities

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83. Scientific evidence for policy-making, DG Research, EC, 2008
84. Davies, Huw T.O., Nutley, S.M., Smith, P.C. (2004), What Works ? Evidence-based Policy and Practice in Public services, Policy press.

85. Wilsdon (2007), op.cit., p. 18
86. Pimbert (2001), op.cit., p. 24

of Science in Society and their results in other directorates of DG RTD, and in other DGs. Secondly, according to the mid-term assessment report of Science in Society activities, in the field of "Scientific Advice and Governance Activities" in FP6, while the objectives of the Work Programmes were relevant, ambitious and clearly formulated, most of the projects addressed the sole objective of "expanding public participation". This too narrow scope failed to address "*the extensive governmental scientific advisory process within the EC and its Member States [at the possible exceptions of SAFMAMS and SINAPSE]*" and may have had "*the unintended consequence of distracting attention from a serious and challenging examination of the everyday role of scientific advice in the EC and its Member States*". The FP6 programme focused "*on risk communication and public participation, while ignoring structural political and economic issues that underlie public concerns about both the governance of science and technology and the role of science and technology in governance*"[87].

This echoes earlier comments on the need to not separate scientific advice from public participation. And this calls for the setting of procedures of expertise that are transparent, pluralistic and contradictory[88].

Here as well the Canadian experience can be inspiring. There are more and more attempts to associate both policy-makers and civil society, together with researchers, in the definition of research needs, and research questions. Ways forward include involving policy-makers from the start in Participatory Research projects. Beyond increasing the presence of policy-makers in particular projects, the definition of problems and of research needs should as much as possible involve CSOs, policy-makers and researchers. This could be done through a problem-based approach, with its focus on trans-disiciplinarity, rather than on a pure "technology approach", which seems to remain dominant in policy circles.

This problem-based approach, involving policy-makers, researchers from different disciplines and stakeholders, can be endorsed at different levels. With research, "localism" is not necessary a problem, and the connection to "on the ground reality" that Participatory Research allows is often one of the key features that allows the production of

particularly relevant results. Local results are relevant to more global policies. With such projects, the question rather is: how to render these results relevant in more general terms, at higer levels of decisions ?[89]

A better evaluation of the of Participatory Research would also contribute to a better taking into account of its results by policy-makers.

5. Better evaluate and valorise the value of Participatory Research

Peter Levesque stresses the need for actors involved in Participatory Research or Community-Based Research to build evaluation processes and to engage in the promotion of this type of research. But he also insists on the importance of government support to this emerging field: "*It is part of the political role of those engaged in collaborative research to build arguments which demonstrate the value of their work – value that otherwise would go unrealized. [...] It is important that the benefits and the value that is derived from engaging in collaborative work be made explicit, with a transparency of conversation about methods, limitations, opportunities and vision that reflects the best of the scientific methodology, while avoiding the worst of empire building, of ego inflation and of the creation of hierarchies that inhibit our collective abilities to produce solutions to our problems, or at the very least, better methods of coping with the problems that challenge us. Government has been involved in the construction of the modern research enterprise from its very beginning and as such should be involved in the continued construction of the new forms of research.*" [90]

Ambitious initiatives are emerging, aimed at providing more evidence of the value of Participatory Research, such as the Canadian led global research project *Strengthening knowledge strategies for poverty alleviation and sustainable development: a global study on Community-university partnerships*: Three Canadian universities (UVic, Carleton University and the Université du Québec à Montréal), along with the Living Knowledge Network (Germany and Netherlands), the Society for Participatory Research in Asia (New Delhi, India) and the Community University Partnership Programme of the University of Brighton, are "*taking the lead in undertaking a systematic study aimed at strengthening the role of community-university research partnerships*

87. Mid-Term Assessment of Science and Society Activities 2002-2006, 22 March 2007
88. See also 2002 Guidelines on the collection and use of expertise.

89. Brydon-Miller et al. (2003), op.cit.
90. Levesque (2008), op.cit.

in poverty reduction and sustainable development through strong evidence-based analysis"[91].

Government could also fund the development of networks of good practices, providing a space of exchanges of experience, or encourage the creation of networks or researchers and/or CSOs involved in Participatory Research.

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91. Hall, B.L. (2008) Strengthening knowledge strategies for poverty alleviation and sustainable development: a global study on Community-university partnerships.

Part V

Recommendations

How can the EU improve its support to research partnerships between CSOs and researchers, in the light of the CURAs 10 years of experience, and of its French regional adaptation, PICRI ?

The EU has funded Participatory Research projects for a few years so there already exists some expertise about the importance and benefits as well as the limits and difficulties of the cooperation between researchers and CSOs. Researchers and CSOs come from different worlds and cultures, and have different objectives and temporalities. CSOs are mostly concerned with making an impact and changing policies, and for now few CSOs consider themselves as research stakeholders. On their side, researchers may not see the point of working with CSOs, they do not know how to work with them, and their institutions do not encourage them to do so.

There is no perfect system that will address all issues and difficulties, and nothing will replace the experience of people involved in research partnerships. But the CURA and PICRI systems, and similar experiences, have shown that there are key barriers and key facilitating factors to Participatory Research.

We will highlight a few key principles for EU, but also national, regional and local policy-makers, university managers, research institutions, scientists and CSOs to keep in mind, before proposing more concrete recommendations.

A. Key principles to improve the support to Participatory Research

Acknowledge the value of CSO participation to research

Participatory Research is becoming an increasingly accepted research paradigm. It can help solve concrete problems by putting research at the service of communities, but CSO participation to projects can also help researchers moving forward in our understanding of the multi-dimensional (economic, social, environmental) challenges of Sustainable Development, and in developing integrated solutions. It allows the identification of research gaps and to address issues neglected by mainstream research. Participatory Research leads to adopting a problem-based and trans-disciplinary approach. It allows to tap into other forms of knowledge and can open new innovation paths.

Make space for alternative narratives of research

For now the societal relevance of research remains mostly defined through its contribution to competitiveness and economic growth, and a lot of research is focused on technological innovation. Research is often portrayed as a race, for which the only alternative is to go faster or slower, but with no choice over direction. In reality, scientific and technological choices are shaped by the social and economic context, by values and vested interests. In a democratic society, acknowledging that science and technologies involve politics means that new and alternative narratives should be recognised at the institutional and political levels. The benefits of participatory processes in science governance, as well as in research, for policy-making and for informing robust long-term choices, have been documented. Upstream engagement of civil society must now be mainstreamed and embedded in larger policies. This would have to start with a change in the narratives that underpin EU research. Taking the concept of "Knowledge Society" seriously also involves acknowledging the legitimacy and valuing the relevance for policy-making and for scientific research of the knowledge of all sectors of society, not only the knowledge located in universities and businesses. Interactions with more a more diverse set of societal actors generate new forms of social intelligence and create mutual benefits. "Knowledge Society" should become a more inclusive concept. Senior figures and officials in institutions should integrate in their discourses reflections about the need to move collectively towards "public engagement in science". Developing Participatory Research mechanisms is a concrete way to make this concept more meaningful.

More opportunities to engage

There are still few mechanisms allowing and funding research partnerships between CSOs and research institutions. Therefore, there are still few opportunities for CSOs to engage in research, and for scientists to engage in research partnerships with civil society, both at the EU and national levels. The availability of funding is the key driver and its lack the main barrier to CSO engagement in research. The existing experiences have been successful and have attracted considerable interest. There is a need to dedicate more support and more funding to such mechanisms, and to ensure a sound information about these opportunities, both towards CSOs and researchers.

Reward public engagement of scientists

The lack of high level institutional support is a barrier for scientists who are interested in engaging society. Universities and research institutions should be encouraged to integrate public engagement and service to the community in their mandate and in their programmes. The evaluation of scientists should also be conducted on a larger basis than their contribution to their discipline and their publications. It takes time and commitment to get involved in research partnerships, and this contribution should be rewarded rather than punished.

A diversity of forms of engagement and a more inclusive governance of research

The role of a CSO partner can vary according to its capacity, to its needs or to the purpose of the research project. It may end after the framing of the research question, it may start with the dissemination of the results, or CSO partners can be involved in the research process itself, from the collection of data to the interpretation of the results. In this respect there is no clear-cut distinction between the participation of CSOs in research projects, their inclusion in the governance of research and their contribution to agenda setting.

Create long-term relationships and places for meetings

Experience has shown that the existence of relationships between the partners anterior to the construction of a research partnership is important in order to enable the groups involved to go beyond the primary representations they have of one another, which is a condition for mutual learning. But there are few places where such relationships can emerge, few spaces for dialogue and few opportunities for CSOs and researchers to meet. Virtual meeting places, such as websites, cannot replace face-to-face interactions. This lack turns into a practical problem because it makes it hard for scientists to identify appropriate CSO partners.

There is a lack of knowledge brokers, who could operate this important matchmaking activity. It is crucial to have spaces and opportunities for mutual learning to take place, for partnerships to emerge, but also for the expression of conflicts and tensions, that are conditions for learning.

The importance of robustly designed partnerships

There is a need for flexibility in the identification of the research needs and, as much as possible, to allow CSOs to work on the needs they have identified rather than having to try and fit into calls for projects too narrowly framed. Then the problematisation phase is a crucial stage of a research project, and it is important to devote the necessary time and resources to this design stage. Too often, not much room is given to in-depth dialogue between participants of different nature, the mutual learning process it implies, as well as to the design of an extended outreach strategy.

The application phase could be adapted to more closely reflect the vital activity of building a solid CSO-researcher partnership. A mechanism allowing funding for a pre-application phase ("seed funding" or a two-step application process like in CURAs) could help. Another challenge is the need to balance the possibility of involving more diverse CSOs in projects with the need for accountability that goes with the use of public money, and which can be a big burden for CSOs, especially for the smaller ones.

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Create support structures

The most crucial point identified in the CURA system and other mechanisms in Canada, and the most striking difference with the BSG-CSO instrument, is the existence of an "infrastructure" that allows the funding of "knowledge brokers" or "facilitators". These structures have a number of advantages and fulfill a diversity of roles. They provide support to to both researchers and CSOs all along the process, help them resolve conflicts and navigate their ways through the partnership and the research process, but they also act in the first place as "brokering" structure, that can help CSOs find the right academic partner, and vice-versa. They can also act as organizers of meetings between the research community, CSOs and policy-makers, as facilitators for the building of long-term relationships, for the building of trust and mutual understanding between two different communities. Permanent structures ensure that the experience on and lessons about Participatory Research do not get lost. They can also alleviate the heavy administrative burden that the involvement in research partnerships represents for CSOs.

B. Recommendations

These recommendations address EU policy-makers, but also national, regional and local policy-makers, university managers, research institutions, scientists and CSOs. On the basis of lessons drawn from existing mechanisms such as CURAs and PI-CRIs, there are concrete ways of improving participatory research mechanisms. In this respect, there is no perfect recipe, or a single path to be followed. This is reflected in the list of recommendations. Some may be easier to implement than others depending on the context, opportunities, and the good will and courage of people involved. For some recommendations there is a need for more reflection on what is the most relevant level of action, or on how to create synergies, as different levels can include the same actors – scientists from universities and public research institutions, policy makers, administrative staff, civil society organisations. In any case the EU can play a positive role. EU institutions have a strong incentive potential. If things shall move forward, their support to "Science in Society" activities and to their mainstreaming is crucial. In addition, support from regional and local authorities is needed, as they can more directly link with their universities and researchers, and may be more open to collective experimentation. European governments, committed to make Europe a "Knowledge Society" and to build the European Research Area, should in the first place increase their support to the engagement of civil society in research and research policy.

1. To the European Commission

Research Framework Programmes

> *Increased support to Participatory Research*

The EU support to Participatory Research has a positive effect on the development of this type of research. The EU support to developing partnerships between scientists and CSOs in research and to capacity-building through its "Science in Society" activities has been crucial both in practical and symbolic terms. It should be strengthened and valorised by the Commission. More support should be dedicated to it in Framework Programmes. The Commission could gradually open up to 5 % of yearly FP budgets to research in partnership with CSOs, notably in thematic priorities such as health, environment, transport, energy or agriculture.

> *Mainstreaming the use of the BSG-CSO instrument*

Participatory research is not only relevant to the "Science in Society" programme. It would be especially important to ensure that DG Research staff in all directorates are aware of the potential benefits of participatory research and of the use of existing support mechanisms. Capacity building and training are necessary at different levels and for all involved actors – Commission and National Contact Points staff, CSOs, researchers.

> *Leave calls for projects open*

Participatory Research calls for projects should be as open as possible, so as to allow the partners to identify themselves what are the most crucial problems they have to face, and to design together projects which are based on their real needs, rather than to try and fit their concerns into too narrowly framed calls for projects. Making sure that the project is the most relevant for both researchers and the CSOs involved makes it more likely that the partners will be committed to the project and that the results will be used, either for the partners to adapt their way of working or the way they approach a problem, or in policy advocacy.

In this respect, the wording of the topics in the annual Work Programmes could be better adapted to research in partnerships, and take more into account the potential added value of taping into the diversity of knowledge, and of CSO engagement. It would make it easier both to integrate the BSO-CSO funding scheme, and for CSOs to propose projects.

Mapping CSOs research needs could continue to be the purpose of some EU calls for projects. The Commission could launch such calls in all thematic priorities of the Cooperation part of FP7 (not only in the "Science in Society" Programme).

> Adapting the BSG-CSO to the needs of CSOs

The BSG-CSO scheme, in its current form, presents certain limits. Training and Outreach activities benefit from a 100% funding rate, whereas CSOs' Research activities in a project can only benefit from a 50% funding rate. This is a strong barrier to access. It puts a heavy financial burden on CSOs, that chronically suffer from a lack of funding. CSOs usually do not have the possibility to do co-financing on this type of work, as only few possibilities exist for them to get funding to do research – in contrast to researchers. In practice, CSOs that want to participate to research projects often have to use some of their own funds, initially dedicated to other activities than research. The reason for this discrepancy in the funding rates is that the rules of participation to FP7 have introduced a distinction according to the legal nature of organisations. They provide for a list of organisations that can benefit from a 75% funding rate for research activities, and the ones not on the list – such as CSOs - are de facto excluded, and a 50% funding rate is applied. It would be necessary to change the funding rules for the next Research Framework Programme.

> National Contact Points

Tthe network of National Contact Points, funded by Members States, is the main structure that provides guidance, practical information and assistance on all aspects of participation in FP7. The support to Participatory Research with non-profit civil society, and thus support to both researchers and CSOs involved in common projects, should be explicitly included in their mandate.

Research policy

> Advisory boards

CSOs should be offered more opportunities to participate in committees that advise on research policy. All FP7 advisory boards should be open to members of CSOs.

> Mapping CSO research needs and agendas

It is important to design processes to map and identify the research needs identified by civil society, both at the micro and macro levels. At the EU level, forums or platforms gathering CSOs, policy-makers and scientists could be set up on a thematic basis to identify research needs, shape them into research questions, and design research agendas. Rather than the result of a one-off formal process, the involvement of CSOs in research governance could take the shape of permanent thematic forums with meetings on a regular basis. Such forums could provide a place to meet and help emerge long term partnerships, where research needs and relevant research questions are identified, both for policy-makers and civil society.

Existing structures, such as European Technology Platforms (ETPs), are not adapted to CSOs. Very few CSOs are involved in ETPs, which is hardly surprising since these platforms are industry-led by definition and mostly reflect the research needs of the industrial sector.

The Social Platforms recently created in the field of Social Sciences and Humanities are an interesting model and should be further developed. The concept (gathering CSOs and researchers with the purpose of designing research agendas on a given theme or issue) could be extended to other areas (Environment, Food and Agriculture...).

> Encouraging the professional mobility of researchers

The professional mobility of researchers from public research institutions to the non-profit sector should be supported, for instance through Ph.D. and postdoctoral grants. Individual fellowships for senior researchers who wish to engage in research projects with CSOs would also support this mobility.

> Communicating and raising CSO awareness about research policy and research opportunities

There is a need for awareness raising and capacity-building of CSOs on research policy, and to ensure that information on opportunities and relevance to get engaged in research and research policy is spread along a multitude of channels and networks. CSOs should be given opportunities to reflect on research and research policy and on how far actions in these fields can be included in their

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mandate. There is a need for awareness raising also on the side of researchers. Since there exist already multiple communication channels from the EC to researchers, these could be used to inform the latter, whereas effective communication channels towards CSOs have certainly to be invented. Information should also be provided to EU and national research policy-makers to raise their awareness and make them familiar with the concept of participatory research, its benefits, with outcomes of European participatory projects, and with the funding scheme BSG-CSO. The Commission could play a role in encouraging national and regional governments, universities as well as foundations, to fund such partnerships as well as dedicated support structures.

Engaging Universities and Research institutions

The Commission could encourage universities to include service to community and to civil society in their mandate, besides research and education. The European Commission could support this mission of universities by helping them build relevant tools and appropriate processes to respond to local demands or to demands of general interest carried by CSOs. The Commission could stimulate the creation within research institutions of structures that support CSO participation (knowledge brokers), for example through the use of ERANETs. It is crucial to build on the experience base. Until support structures emerge, it would be important to provide spaces for networking and exchanges between the actors involved in Participatory Research projects. The Commission could support the creation of a network of European Universities engaged in participatory research.

The reward structure and the systems of career advancement for researchers need to be adapted if we want a real two-ways dialogue to emerge. The Commission could initiate a large participatory process aimed at elaborating guidelines on how to extend the basis on which researchers are evaluated, adapt evaluation processes to the constraints of participatory research, and reward public engagement.

2. To Member States

The recently adopted "European Research Area Vision 2020" reaffirms that "the ERA is firmly rooted in society and responsive to its needs and ambitions in pursuit of sustainable development". The "Green Paper on the European Research Area: New Perspectives" from April 2007 proposed a vision of ERA that is namely based on six dimensions, including "sharing knowledge". The Conclusions of the Council of the European Union from May 2008 on the launch of the "Ljubljana Process - towards full realisation of ERA", state that improved governance of ERA should notably "involve all Member States and associated countries including regional authorities, as well as stakeholders such as universities and research organisations, civil society and business."

The fact that the ERA concept acknowledges that science and research should help address societal and environmental challenges (rather than merely contribute to the competitiveness of European industry) is an important development and a welcome move. Yet it remains unclear, especially in Joint Programming (Member States attempting to coordinate their research efforts on key topics of interest for society) what will be the process to decide on key "societal challenges" that research should help Europe to address, and on how research could contribute to solutions. Besides, some Member States appear reluctant to support Science in Society activities.

Member States should support the participation of CSOs in research and in research governance in the construction of the ERA as well as in their national policies. They should create funding opportunities for Participatory Research and for support structures and establish a more inclusive governance.

Participatory research should truly become a key figure in the European Research Area. Member States and EU institutions should develop a larger and more inclusive vision of the concepts used in the ERA long term vision such as "free movement of knowledge", "modern universities and research organisations", "sharing and using knowledge across sectors and borders" by integrating the participatory research approach as one of the key modes to reach these goals. A European strategy on the role and importance of participatory research could be agreed upon by the Council of the European Union.

3. To Regions

The success of the PICRI experience and the interest it has arisen in other French regions confirm that regions are a key level to develop a closer relationship between civil society and research. FP7 already supports research activities at the regio-

nal level. The "Regions of Knowledge" part of FP7 aims at "strengthening the research potential of European regions, in particular by encouraging and supporting the development, across Europe, of regional "research-driven clusters" associating universities, research centerres, enterprises and regional authorities". It recognises regions "as important players in the EU's research and development landscape". Even if civil society is missing amongst the list of "regional actors involved in research", it is not excluded and activities (126 million euros in total) comprise "measures aiming at improving research networking". Regional governments could play an active role in developing Participatory Research, and in encouraging universities to set up participatory research offices, structures that can help the emergence of long-term relationships and support partners involved in research projects.

Regions could:
• study the feasibility of CURA/PICRI like programmes.
• establish, at regional level, structures dedicated to bridging the gap between researchers and CSOs. Funding should be provided to set up "knowledge brokering" offices facilitating Participatory Research projects. This would be a powerful way to ensure that the quality and outputs of PR projects continuously improve.
• organise meetings with researchers and CSOs on science and technology issues of regional/local relevance. This can be an aspect of improving research networks and service to regional/local needs.

4. To Universities and research institutions

Universities have played a determining role in the diffusion of a cultural model based on reason and right. What visions do universities transmit nowadays? Which scientific thinking? Since universities should "naturally" be another key actor in promoting participatory research, it is important to encourage partnerships at university level. There exist already modest experiences with Science Shops, independent research structures responding to research needs of citizens and CSOs, which have been supported by FP calls since FP5.

In Canada, service to community is an integral part of the mandate of universities. More and more universities take this mandate seriously and set up mechanisms to allow a concrete engagement of researchers towards civil society and the local communities they are part of. Not only do universities set up structures such as offices of community based research, they also set up the right conditions for researchers to be involved in partnerships, by valuing their work, adapting their teaching load, and by engaging reflections on how to take into account services to the community in the evaluation of researchers.

• Universities and Research institutions need to give scientists more opportunities to reflect about the societal consequences of their work, and a better training on how to communicate about their choices and assumptions, and how to engage with society. There is also a need to raise awareness about the benefits of participatory research, and dialogue with civil society in general.

• Given the very competitive nature of the modern scientific "enterprise", scientists need to be given incentives to engage with society. Service to the community and engagement with civil society should be valued by scientific institutions, policymakers and politicians. Scientists who work with civil society organisations should benefit from the same career opportunities as all other scientists.

• Besides research and education, service to community and civil society should be included in the mandate of European universities. The EU, national and regional governments could support this mission of universities by helping them build relevant tools and appropriate processes to respond to local demands, or to demands of general interest carried by CSOs.

• Creation of support structures
Nowadays, numerous technology transfer structures exist in a growing number of universities and research institutions aimed at bridging the gap between researchers and industry. In parallel, structures dedicated to bridging the gap between researchers and CSOs should also be established. Funding should be provided to set up "knowledge brokers" facilitating and advising participatory research projects. These dedicated support structures could be a place to ensure that accumulated experience is valued, and does not get lost. A support structure would allow Participatory Research to build on experience, and could provide training and capacity-building to the partners.

• Creation of spaces of reflection and exchange
Universities could take the initiative to conduct reflections on Participatory Research and on how to associate CSOs to the shaping of research agendas in their own scientific departments as well as at hi-

gher university directorate level. Both researchers and students should be involved in the reflection.

With the help of regional governments and local authorities, universities or knowledge brokers could organise meetings with researchers and CSOs on science and technology issues of regional/local relevance. This can be an aspect of improving research networks and service to regional/local needs, and would give researchers the possibility to engage in relationships with CSOs, that could lead to common research projects.

• More training should be provided by universities on inter-disciplinary, trans-disciplinary and Participatory Research, and students should have the opportunity (e.g. validated modules or units, internships) to engage in research partnerships with civil society.

• The professional mobility of researchers from public research institutions to the non-profit sector should be supported, for instance through Ph.D. and postdoctoral grants. Individual fellowships for senior researchers who wish to engage in research projects with CSOs would also support this mobility. The fellowship should include the flexibility for academics to choose their non-academic partners.

• The reward structure and the systems of career advancement need to be adapted. Universities and public authorities could initiate a large participatory process aimed at elaborating guidelines on how to extend the basis on which researchers are evaluated, adapt evaluation processes to the constraints of participatory research, and reward public engagement. The draft guidelines developed by the Office of Community-Based Research of the University of Victoria provide a very good starting point.

5. To CSOs

CSOs should express their views on the kind of science they would like to see carried out and should devote resources to build their research agendas. In order to contribute to increasing the societal relevance of research, they would have to get more involved in the politics of research, and to understand better the pressures and constraints scientists are under.

CSOs are good at identifying problems, at solving local issues, at warning and sometimes stopping dangerous trends, at raising awareness and at making a political impact. But with the challenges ahead, it would be useful if some of them broadened their spectrum of activities and, instead of focusing only on policy action and of using science instrumentally as a tool for advocacy, could contribute directly to what research can bring in terms of solutions.

Some CSOs would also directly benefit from developing a culture of research, from learning to value and to capitalize their knowledge. They could develop a culture of reflexivity, learn to question more regularly their own practices and organisation.

Working with researchers can help them to do so, especially to learn to articulate better how the different dimensions of Sustainable Development are linked, and to develop a more solid economic reflection and discourse. This would mean dedicating more resources to research, to long-term activities, and to be more involved in the design of solutions, in partnership with researchers.

Annex I

List of Interviewees

Alary, Franck
Official Representative PICRI
Ile-de-france Regional Council
(France)

Arrowsmith, Greg
Policy Officer
European renewable Energy re-
search Centres Agency (EUREC)

Bastien, Eric
Senior Programme Officer, Strate-
gic Programs and Joint Initiatives
Division
Human Sciences Research Center,
Social Sciences and Humanities
Research Council of Canada (CRSH/
SSHRC)

Bernier, Jocelyne
Coordinator, "Community Approach
and Health Inequalities" Chair
University of Montreal

Bourgain, Catherine
INSERM Research Director

Bussières, Denis
Coordinator, Community-University
Research Alliances Social Economy
Participatory Research Quebecker
Network (RQRP-ES)
University of Quebec in Montreal
(UQAM)

Caracostas, Paraskevas
DG Research, Directorate Science,
Economy and Society Unit, Advisor
for Policy Issues related to Sciences
and Society
EU Commission

Cinti, Stefano
Policy Officer, Organic Food & Far-
ming Unit
EU Commission

Faroult, Elie
DG Research
EU Commission

Fontan, Jean-Marc
Co-director, Community-University
Research Alliances in Social Eco-
nomy (ARUC-ES)
University of Quebec in Montreal
(UQAM)

Goldringer, Isabelle
Geneticist
French National Institute of Agricul-
tural research (INRA)

Halffman, Willem
Science, Technology, and Policy
Studies (StePS)
Twente University, The Netherlands

Hailiweli, Janet, E.
Ex-Counselor of Canadian Govern-
ment on Research Issues

Hinchliffe, Steve
Reader in Environmental Geography
Faculty of Social Sciences
Open University, UK

Hulot, Jean-François
Head of Unit, Organic Farming
EU Commission, DG Agriculture

Janiaud, Paul
INSERM Research Director
Former Head Representative of
French Research Institutes for the
DG Research

Kjaer, Christian
Chief Executive Officer
European Wind Energy Association
(EWEA)

Kjellstrand, Sara
Research Programme Officer, Direc-
torate Environment, Unit Sustaina-
ble Development
EU Commission DG Research

Levesque, Peter
Principal of Knowledge Mobilization
Works, Canada

Levidow, Les
Development Policy and Practice
Open University, UK

Liberatore, Angela
DG Research, Social Sciences and
Humanities Programme
EU Commission

Lipinski, Marc
Vice President, in charge of Re-
search, Innovation and Higher
Education
Ile-de-France Regional Council
(France)

Michaud, André
Director, Collectivity services
University of Quebec in Montreal
(UQAM)

Milne, Laura
Knowledge Mobilization Coordi-
nator, Office of Community-Based
Research
University of Victoria, British
Colombia

Neamtan, Nancy
Director
Chantier of Social Economy
Montréal

Pauli, Anneli
DG Research, Deputy Director-ge-
neral for Development of European
Research Area
EU Commission

Pimbert, Michel
Director of the "Sustainable Agri-
culture, Biodiversity and Livehoods"
Program
International Institute for Environ-
ment and Development (IIED)

Ranke, Olivier
Farmer, Director of Organic Farm
Bergerie

Schlüter, Marco
Director of International Federation
of Organic Agriculture Movements
(IFOAM) EU Group

Thies, Frauke
EU Policy Campaigner
Renewable Energy Greenpeace
European Unit

Vandelac, Louise
Sociology Teacher
University of Quebec in Montreal
(UQAM)

Verbeek, Arnold
Manager and senior expert
IDEA Consult (Brussels)

Willis-Mazzichi, Viviane
DG Research, Ethics and Governan-
ce of Science Unit
EU Commission

Annex II

List of PICRIs

2005

Title of project	Scientific partner	CSO partner	Aim of the project
Clinical evaluation of electric wheel chairs	Hospital Raymond Poincaré - Centre of technologial innovations	Fondation Garches	Creation of a clinical protocol of investigation with paralytic patients in order to evaluate electric wheel chairs sold on the market
Transplantation of bone marrow: information of families - evaluation of the use of the booklet « My child will receive a transplantation of marrow »	Department Ethics of University Paris-Sud, Institute Curie	Association Capucine (help for families with leucemia, transplantation)	Analysis of ethical aspects and stakes of the transplantation of bone marrowin pediatrics : improvement of the communication of information to families
Expositions as a tool of appropriation	Laboratoty of museology and sciences mediation - National Museum of Natural History	Fondation 93 (center of scientific culture)	Use of « migrating » expositions as tool of citizens expertise for a social appropriation of environmental questions
Local participatory instruments in Ile-de-France and Europe: towards a technical democracy?	-National Center of Scientific Research (CNRS), urban cultures and societies laboratory -Housing Research Center	Association for democracy and social and local education (ADELS)	Comparison and analysis of local participatory instruments in IdF based on European experiences
Towards a management by citizens of the water of Ile-de-France	-Research and teaching center « water, city and envoronment » -University Pierre-Marie Curie, PIREN-Seine program (interdisciplinary research program on Seine's environment)	-H2O Association (information and education about water) -Ile-de-france Environment (environmental associations network around paris)	Improvement of the knowledge and the process of water management of natural environments
Meaux: a cathedral in the heart of a city	Laboratory of occidental medievalistics of Paris (UMR - mixed research unit CNRS/university Parisl)	Historical society of Meaux and its region	Study of ancient urban stuctures of the city of Meaux and more specifically its cathedral
A digital library about sustainable development	Laboratory Costech of the Technological University of Compiègne	Ritimo (network of information and ressource centers for development and international solidarity)	Creation of a digital library about the sustainable development for the public and identify and federate actors and organisations of sustainable development
An instrument of translation in distance into the sign language in the frame of higher edcation in Ile-de-France	Laboratory technologies, handicap, interface and multimodality, university Paris 8	French academy of sign language (LSF)	Creation of an instrument of translation into the sign language with the help of Internet in order to facilitate the access of deaf and hearing-impaired students to higher education

Title of project	Scientific partner	CSO partner	Aim of the project
Collective elaboration and evaluation of indicators of economic and social security in IdF	Economic center Paris Nord (mixed research unit CNRS/ Paris 13)	-Association CERC (information and education on employment, income and costs), -CIDEFE (ressource and information center for studies and education of elective representatives)	Evaluation of economic and social security with the help of local actors in order to better apprehend marginalisation and social exclusion
Citizens conference and its place in the juridical order	-CSI (innovation and sociology center), research laboratory in Ecole des Mines, Paris -research center on sciences and technologies law, CNRS/university paris 1) -Law laboratory, university of Montpellier	Fondation Sciences Citoyennes	Description and evaluation of models of citizens conferences
Impact of a gerontological network on professional practices, the care trajectories and life quality of fragile elderly people			Creation of a network in order to improve professional practices and care and better respond to needs of elderly people

2006

Title of project	Scientific partner	CSO partner	Aim of the project
The mission « Adoption » of Medecin du monde and the question of the origines of adopted children. Results and perspectives	GRASS, EHESS (group for studies of social and sociability, School of high studies in social sciences)	Association Médecins du monde (local and international care help)	Understanding and analysing the process of construction of parenthood in order to improve adoptions
The genome of the chronical, hereditary pancreatitis	epidemiological and molecular genetics laboratory, INSERM (National Institute of health and medical research)	Association of pancreatitis patients	Improvement of diagnostic tools for a better apprehension of the genome of the chronical, hereditary pancreatitis

Title of project	Scientific partner	CSO partner	Aim of the project
Social relations, practices of associations and public action in IdF	Lise (laboratory for economic sociology), Conservatoire national des arts et métiers (CNAM)	-« Fonda », « profession banlieue » and « Le petit Ney » associations (local and social development) -national link commitee of local districts	Comprehension of the evoluation of social relations and associative engagement based on the identification of indicators
International circulation and urban development in Senegal	National institute of studies and development (INED), international migrations and minority unit	ENDA Europe (international association for environmental development)	Co-production and diffusion of knowledge about the senegalese migration
The relations between girls and boys in the classes of mathematics, French, physics and technology – collaboration, competition or indifference	Teaching and education research center, university Paris 10	Association women and mathematics (promotion of women in mathematic sciences)	Creation of a real co-education in school based of a study about the interactions between girls and boys
Networks of actors of fair trade in IdF - a systemic, operational approach	IEDES (research center of the social and economic development studies institute, university Paris 1	Fair trade platform (network of fair trade protagonists)	Identification, creation, development and valorisation of a network of actors of fair trade
Development of paysants' practices of management and selection of wheat varieties for organic bred of quality in IdF	Mixed research Unit of vegetable genetics of Moulon - Laboratory of cell biology	-Network semences paysannes (for the preservancy of biodiversity) - Nature & Progrès federation (organic farming, biodiversity promotion)	Development of economically viable agricultural practices that respect the environment

2007

Title of project	Scientific partner	CSO partner	Aim of the project
Butterflies in gardens: a citizens indicator	National Museum of Natural History, laboratory of preservancy of species	Fondation Nicolas Hulot, Noé Conservatory (observatory of garden butterflies)	Use of butterflies as indicators to evaluate the health state of ecosystems and to develop networks of observers of biodiversity
Chinese migration from Wenzhou to IdF: what lessons for integration policies of migrants?	Cadis (sociologic intervention and analysis center), laboratory of the EHESS (School of high studies in social sciences)	Hui Ji Convergence association (help to migrants)	Better understanding of the particularities and psycho-sociological processes on Chinese migration from Wenzou over three generations

Title of project	Scientific partner	CSO partner	Aim of the project
Intermittence four years later – precarity of employment of social rights, and conflictual stakes	Matisse (economic center of the Sorbonne), mixed research unit CNRS-Paris1	show-business intermittent workers commitee	Studying and analysing the practice of intermettence in order to nourrish reflections about social protection
Influence of hormonal treatments during pregnancy	Mixed research unit (INSERM/University paris 5), Hospital Sainte-Anne	Association HHORAGES (stop to artificial hormones during pregnancies)	Studying biological and behavioral modifications in children exposed to artificial hormones during pregnancy
Study of behaviors of verification in patients suffering from compulsive obsessional troubles	Hospital Pitié-Salpêtrière, Universités Paris V, VI, VIII, INSERM	French association of compulsive obsessional troubles patients	Development of a clinical and therapeutical tool of investigation for patients suffering from compulsive obsessional troubles
Creation of an observatory of social and environmental changes en aval du hydroelectric barrage of Nam-Theun	AgroParisTech (environment and living industries and sciences institute)	cooperation commitee with Laos	Evaluation of impacts related to the implantation of a hydroelectric barrage in Laos
Renewing the practices of the conception of urban projects: strengthening the cooperation between professionals, associations and citizens in IdF	-National center of scientific research (CNRS) -university Paris 10 -architectural schools of Paris-belleville and la Villette (ENSAPLV) -resource center « urban situations of development » -research center on Housing	-International association of expert technicians and researchers -tenants associations -FAPIL (promoting social development through housing)	Strengthening the cooperations between professionals and civil society in order to conceive a sustainable city
The plateform of rare diseases	-Laboratory Latts of the University of Marne-La-Vallée -INSERM -Rare diseases institute	-Rare diseases alliance (network of rare disease associations) -Eurordis (european organization for rare diseases) -Infos services (rare diseases informations)	Analysis of interactions between actors of research and of patients associations thanks to new technologies
Crossed words: a women-citizens space	University Paris 8	ATMF (association of french maghrebi workers)	Understanding of how women from Maghreb elaborate their own strategies to become autonomous and citizens in France

Annex III

List of CURAs

1999

Organization	Application Title	Application Keywords
Brock University	Enhancement of youth resiliency and reduction of harmful behaviours leading to healthy lifestyle choices	youth; resiliency; lifestyle; risk and protective factors; substance use; gambling; sexual activity; physical activity; academic achievement
Carleton University	Voluntary sector capacity: building through development of solutions to the evaluation challenges faced by the sector	evaluation research; nonprofit management; voluntary sector studies
Institut national de la recherche scientifique	Savoirs autochtones et développement durable : une nouvelle approche pour la prise de décision/Learning from each other/Apprendre les uns des autres	Savoirs autochtones; développement durable; environnement; populations autochtones; co-gestion; participation communautaire; recherche collaborative; recherche sociale; recherche action; prise de décision
McCord Museum of Canadian History	Projet Laurier : ressources muséales pour l'enseignement de l'histoire canadienne	programme scolaire; salle de classe; Canada; histoire; musée; enseignement; internet; patrimoine; pédagogie; site Web
McGill University	Genre et enjeux de sécurité humaine	genre; sécurité; conflits; réfugiés; régions en développement; femmes; droits humains; santé; socialisation; construction de la paix
Memorial University of Newfoundland	Newfoundland archaeological heritage outreach program	Newfoundland; Labrador; archaeology; local; community; material culture; heritage; information exchange
St. Francis Xavier University	Coastal communities and sustainable fisheries: building harvester research and ecosystem resource management capacity	sustainable fisheries; communities; ecosystem; harvester capacities; social research; interdisciplinarity; internships
Thames Valley Children's Centre	Enhancing the life experiences of school-aged children with special needs who receive therapy services	children; special needs; disability; therapy; rehabilitation; participation; social outcomes; academic outcomes
The University of British Columbia	Alternative dispute resolution: a program of research and teaching	evaluation; mentoring; training; research
Université de Montréal	Collectif de recherche sur les aspects socio-sanitaires de la toxicomanie (CRASST)	Toxicomanie; santé; aspects sociaux; intervention; recherche; partenariat; communauté
Université du Québec à Chicoutimi	Axe médio-nordique de développement récréo-touristique Monts-Valin-Monts-Otish	étude d'apportunité; développement médio-nordique; corridor récréo-forestier; axe Monts-Valin-Monts-Otish; partenariat autochtone; potentiel récreo-touristique
Université du Québec à Montréal	Économie sociale	Économie sociale; partenariat; développement local et régional; développement durable; logement social; emploi et insertion; services aux personnes; ethnies et autochtones; évaluation; comparaison
Université du Québec à Montréal	Égalité, pluralité et solidarité : nouveaux défis des rapports sociaux de sexe	études féministes; famille; politique; citoyenneté; économie; travail; démocratie; égalité; pauvreté; stratégies
Université Laval	Mémoire et histoire au Nunavut/Memory and history in Nunavut	Anthropologie de la mémoire; historie orale; historie culturelle; anthropologie historique

Organization	Application Title	Application Keywords
University of Alberta	The Daghida Project: language research and revitalization in a First Nations community	museums; literacy; bilingualism; immersion; aboriginal language/culture; Chipewyan Dene; education
University of Ottawa	Urban/rural municipal/regional infrastructures, climatic change and epistemic communities in Eastern Ontario	climate change; municipal infrastructure; adaptation; water; integrated environmental assessment; institutional capacity and barriers
University of Saskatchewan	Creating a community-university institute for social research: a partnership to forge healthy, sustainable communities through research	social research; community health; quality of life; community economic development
University of Toronto	Promoting community sustainability: linking research and action	sustainability; partnerships; environment; monitoring; community; health; governance; leadership; sharing; research
University of Victoria	A cultural property community research collaborative	university-heritage community research collaboration and knowledge sharing in B.C.
Wilfrid Laurier University	Partnerships for children and families project	partnerships; policy; prevention; service integration; cultural sensitivity; organization change
York University	Bridging the solitudes: a community-university research alliance linking education and labour market access	access; equity; work and education; activist research partnerships; training
Youth Services Bureau of Ottawa	Youth in conflict with the law: alternative responses and community-based decision making	effectiveness of alternative measures including improved outcomes for offenders; impact on recidivism; effect of victims; community safety and response; ability to support alternative decision making/sentencing approaches

2000

Organization	Application Title	Application Keywords
Canadian Forum on Civil Justice	The civil justice system and the public	civil justice; court; public; reform; communication; law and justice; empirical research
Community Services Council of Newfoundland and Labrador	Values added: the voluntary community-based sector in the unique context of the strategic social plan in Newfoundland and Labrador	voluntary; community-based sector; social planning; public policy; interdisciplinary; multi-sectoral
Dalhousie University	Brain gain: increasing the capacity of rural communities to use social science research to influence and develop policy	community; sustainability; healthy communities; indicators; rural development
Institut national de la recherche scientifique	Insertion et participation des jeunes en région: une approche qui tient compte des jeunes dans le développement régional	jeunes; régions; migration; intégration; insertion sociale; insertion professionnelle; participation; politiques
Kamloops Art Gallery	The cultural future of small cities	cultural history; cultural development; planning; art; community

Organization	Application Title	Application Keywords
The University of Western Ontario	Partnerships in capacity building: housing, community economic development and psychiatric survivors	housing; mental health; psychiatry; community economic development; community development; nursing; economic; policy
The University of Winnipeg	Maximizing community capacity in the inner city	urban revitalization; community development; social capital; community capacity; sustainability; housing
Université de Montréal	Les réponses sociales à la violence envers les femmes-consortium RÉSOUI	violence; femmes; réponses sociales; prévention; intervention; évaluation; partenariat; intersectorialité
Université Laval	Des Tuniits aux inuits : patrimoines archéologique et historique de la côte nord-est de la Péninsule d'Ungava, au Nunavik	archéologie; anthropologie et histoire; paléoenvironnements; conservation et gesion du patrimoine; culture et art inuits; tourisme et développpement en milieu nordique
University of Calgary	Evaluating the justice and community response to family violence in the Canadian Prairie provinces	family violence; justice response; victimology; co-ordinated community response
University of Manitoba	Flood research partnership: promoting stakeholders' participation in sustainable floodplain management	Red River flood; risk perception; stakeholders; sustainable development; social research
University of Saskatchewan	Bridges and foundations: project on affordable urban Aboriginal housing in Saskatoon	Aboriginal; affordable housing; partnership; sustainable; equitable
University of Victoria	Clayoquot alliance for research, education and training	community-based management; ecosystem integrity; community health
University of Waterloo	Planning the mid-sized city: centre for core area research and design	revitalization; environmental management; core areas; planning; design; mid-sized cities
York University	Community university research alliance on contingent work	work; precarious/contingent employment; gendered and racialized employment relations; Metro Toronto; temporary and contract work
University of Ottawa	Urban/rural municipal/regional infrastructures, climatic change and epistemic communities in Eastern Ontario	climate change; municipal infrastructure; adaptation; water; integrated environmental assessment; institutional capacity and barriers
University of Saskatchewan	Creating a community-university institute for social research: a partnership to forge healthy, sustainable communities through research	social research; community health; quality of life; community economic development
University of Toronto	Promoting community sustainability: linking research and action	sustainability; partnerships; environment; monitoring; community; health; governance; leadership; sharing; research
University of Victoria	A cultural property community research collaborative	university-heritage community research collaboration and knowledge sharing in B.C.
Wilfrid Laurier University	Partnerships for children and families project	partnerships; policy; prevention; service integration; cultural sensitivity; organization change
York University	Bridging the solitudes: a community-university research alliance linking education and labour market access	access; equity; work and education; activist research partnerships; training

2003

Organization	Application Title	Application Keywords
Canadian Centre for Policy Alternatives	Economic Security Project	public policy; economic security; inequality; welfare; health; public services; governance
Queen's University	Southeastern Ontario's community-university research alliance in intellectual disabilities	intellectual disabilities; integration; supports; planning; evidence based; stigma; family stress and coping; attitudes; acculturation; developmental disabilities; mental retardation; community partnerships; participatory research
Simon Fraser University	Building culturally inclusive schools through imaginative education	curriculum and instruction; Aboriginal education; educational change; community-based education; imagination
The University of British Columbia	Resilience and local capacity development in BC's coastal communities	community; community development; capacity building; community resilience; educational development; environment and resources; local political development; social capital; new economy; regional development
The University of Lethbridge	Past, present, future: life and times of the Piikani and Pikuni people	oral history; prehistory; transfer/integration of knowledge paradigms; colonialism; academic imperialism; social programs; marginality; education; kinship; subsistence; discourses in conflict
Université de Sherbrooke	Les services éducatifs et sociaux dispensés aux jeunes qui présentent des difficultés de comportement	enfants; adolescents; troubles de comportement; services et programmes éducatifs et sociaux
Université du Québec à Chicoutimi	Design et culture matérielle : développement communautaire et cultures autochtones	développement communautaire autochtone; pédagogie systémique et nouvelle musicologie; design autochtone; muséographie communautaire; identité et culture; création multimédia; valorisation des cultures autochtones; inter culturalisme; culture matérielle no
University of Alberta	Otipimsuak - the free people: Métis land and society in Northwest Saskatchewan	traditional land use; Métis history; resource management; sustainable development; historical geography; Aboriginal history; Western Canadian history
University of Guelph	Changing fatherhood: supporting involvement	father involvement; fatherhood; families; gender and parenting roles; parental leave legislation; work-life balance; child well-being; policy evaluation and development; demographic profile; survey(s); participatory action research; needs assessment
University of Manitoba	The healing journey: a longitudinal study of women who have been abused by intimate partners	woman abuse; longitudinal; child witnesses; family violence; Aboriginal; rural; urban; lesbian; ethnic; immigrant; aftermath of partner violence; personal and life changes after domestic violence; coping methods; service barriers

Organization	Application Title	Application Keywords
University of New Brunswick	The industrial city in transition: a cultural and environmental inventory of Greater Saint John	urban change; industrial/post-industrial transition; labour force restructuring; demography; multiculturalism; social and environmental history; economic history; urban and regional planning; urban sustainability; cultural representation; museum studies
University of Northern British Columbia	Partnering for sustainable resource management	First Nations resource management; co-management; traditional ecological knowledge; First Nations education; ecotourism
University of Ottawa	Social rights accountability project	social rights; social justice; accountability; participation; disadvantaged groups
University of Victoria	Language revitalization in Vancouver Island Salish communities: a multimedia approach	First Nations languages; Salish languages; language research; language revitalization; second language acquisition; second language learning; pedagogy; e-learning; internet; language planning; grammars; dictionaries
University of Waterloo	Research works! for early literacy interventions	early literacy interventions

2004

Organization	Application Title	Application Keywords
Brandon University	Community-based Aboriginal curriculum initiatives: implementation and evaluation	Aboriginal education; arts and culture education; community development; cultural identity development; school achievement; school retention; self-esteem; social cognitive development
Centre for Research and Education in Human Services	Taking culture seriously in community mental health	community mental health; cultural diversity; human services innovation; serious mental illness; inclusion; participatory inquiry; program evaluation research
Community Living Welland/Pelham	Complex skills training for people who have intellectual disabilities: a multi-systemic, interdisciplinary approach	human rights; training complex skills; intellectual disabilities; self-advocacy; systemic intervention
Daniel Langlois Foundation for Art, Science and Technology	Documentation et conservation du patrimoine des arts médiatiques : recherches et études de cas	documentation; histoire; informatique; art; média; archive
McGill University	Protected area creation, culture and development at the Cree community of Wemindji, James Bay, Quebec	indigenous knowledge; environmental protection; natural resource management; cultural education
McMaster University	Toward a bullying-free Hamilton: the Hamilton-McMaster University/Mohawk College research alliance	community-university research alliance; research outcomes and best practices; bullying prevention
Memorial University of Newfoundland	Knowledge and human resources for Innu language development	Innu language; dictionary-making; word formation; Aboriginal language revitalization; traditional ecological knowledge; translation; lexicography

Organization	Application Title	Application Keywords
Mount Saint Vincent University	Projecting the housing needs of aging Atlantic Canadians	aging population; Atlantic Canada; housing options; geo-demographic model; baby boom; dependence-free; health status
Université du Québec à Montréal	Du développement de l'économie sociale à une nouvelle régulation socio-économique : un partenariat pour la recherche en économie sociale	innovations sociales; économie sociale; modèle de développement; gestion et entrepreneuriat; capital social; évaluation; développement local; régulation; gouvernance; ressources humaines; nouvelles pratiques solidaires; partenariat; convention
Université Laval	Innovations, formation et protections sociales dans le travail et l'emploi	innovations sociales; gestion des savoirs; formation; protections sociales
University of Alberta	Are we there yet: using theatre in teen sexuality education	teen sexuality; theatre; participatory; popular theatre; risky behaviour; education; qualitative and quantitative research; training; community based; action research; participatory research; cultural adaptation; program assessment; collaborative
University of Guelph	Rural women making change	rural; gender; women; organizations; work; food; institutional ethnography
University of New Brunswick	Re-Connecting with the history of labour in New Brunswick: historical perspectives on contemporary issues / nouveau regard sur l'histoire du travail au Nouveau-Brunswick : les enjeux contemporains vus dans une perspective historique	labour studies; New Brunswick; Acadia; history; working-class; unions; public history; oral history; women's work; nursing; natural resources; forestry; fisheries; museums; monuments
University of Toronto	Community gentrification and building inclusive communities from within: a case study of Toronto's West-Central neighbourhoods	neighbourhood change; gentrification; community development; urban/community planning; affordable housing; globalization; social change; social justice; social services; public policy; participatory research
Wilfrid Laurier University	Lone mothers: building social inclusion	lone mothers; welfare; social exclusion/inclusion; labour force; poverty

2005

Organization	Application Title	Application Keywords
Dalhousie University	Beyond theory: assessing restorative justice in practice	restorative justice; law; criminal justice; criminology; practice standards; community; gender; race/ethnicity; equity; policy development; victim participation; offender reintegration; aboriginal justice; social institutions
HEC Montréal	Les crises financières dans le secteur des arts : prévenir plutôt que guérir	crise financière dans le secteur des arts; gouvernance des OBNL ; santé financière et organisationnelle dans le secteur des arts; désengagement de l'état; outils de gestion; planification stratégique; reddition de comptes et imputabilité

Organization	Application Title	Application Keywords
McMaster University	Workers' compensation and the consequences of work injury	workers' compensation; work injury; work illnes; work disability; permanent impairment; occupational health and safety
Memorial University of Newfoundland	Building communities in the new learning environment	e-learning; distance education; information & communication technologies; educational policy development & implementation; student learning; educational technology; quality of teaching & learning; impact of ICLT; online learning; rural ed. & development
Saint Mary's University	Coastal CURA: community-based governance of coastal resources: social, economic and policy linkages in the Canadian Maritimes	community-based management; integrated management; coastal management; natural resource management; First Nations; coastal communities; fishing organizations; policy; capacity-building; livelihoods; cross-scale linkages; evaluation; participatory research
The Avataq Cultural Institute	Innunirilaurtangit ammalu sivullita iningit (projet I.S.I.)	archéologie; ethnoarchéologie; éducation; ethnohistoire; géographie; développement socio-économique; environnement arctique; savoir traditionnel; géomatique; gestion du partimoine culturel; nunavik
Thompson Rivers University	Mapping quality of life and the culture of small cities	qualitative indicators; mapping; small cities; quality of life; cultural development and organization; social development; the arts
Université de Montréal	Femmes, violences et contextes de vulnérabilité	violences envers les femmes; vulnérabilité; intervention; politiques sociales
Université du Québec en Outaouais	Innovation sociale et développement des communautés	développement local; développement social; développement socioéconomique; services de proximité; précarité; développement territorial; développement international; partenariats; politiques publiques; concertation locale et régionale; innovation sociale
Université Laval	Les Canadiens et leurs passés: the Canadians and their pasts	histoire publique; usages du passé; mémoire collective; conscience historique; histoire nationale; patrimoine historique; éducation à l'histoire; représentations de l'histoire; musées; diffusion des connaissances historiques
University of Alberta	Healing through culture and language: research with Aboriginal peoples in Northwestern Canada	Aboriginal peoples; cultures; languages; identity; healing; missionaries; residential schools; oblates; histories; oral traditions; education
York University	Monitoring the human rights of people with disabilities in Canada	disability; disability rights; human rights; human rights monitoring; disability rights monitoring; disability law and policy analysis; media monitoring; disability dataset analysis; human rights education; knowledge mobilization; knowledge transfer

2007

Organization	Application Title	Application Keywords
Canadian Centre for Policy Alternatives	Manitoba research alliance for transforming inner city and Aboriginal communities	poverty: community development; community economic development; Aboriginal peoples; diaspora peoples; immigration; multiculturalism; gender issues; justice; security; housing; neighbourhood revitalization; education; training; employment
Collège universitaire de Saint-Boniface	Identités francophones de l'ouest canadien : définition, valorisation et transmission	éducation; littératie; jeune enfance; théâtre; identité francophone minoritaire; patrimoine; langue française; métis; vitalité linguistique et culturelle; immigration; inclusion; médias; exogamie; toponymie; enseignement des sciences
Concordia University	Life stories of Montrealers displaced by war, genocide, and other human rights violations	oral history; life stories; Holocaust; genocide; war; atrocity crimes; human rights; Montreal; immigration; refugees; new media; education; community theatre; storytelling; pedagogy; sharing authority; memory; Rwanda; Latin America; Cambodia; Haiti
Council of Canadians with Disabilities	Disabling poverty and enabling citizenship: examining exclusions and identifying opportunities for the full participation of Canadians with disabilities	poverty; economic and social exclusion; people with disabilities
McGill University	Making mega-projects work for communities	community dynamics and change; mega-projects and community impact; governance and decision-making; community participation
McMaster University	Promoting physical activity in the spinal cord injury community: development, mobilization, and assessment of an evidence-based approach	spinal cord injury; physical activity; quality of life; integration of persons with disabilities; health and welfare; community capacity; recreation; knowledge mobilization; health education and promotion; behaviour change
Memorial University of Newfoundland	Community-University Research for Recovery Alliance-CURA	fisheries; governance; work health; integrated management; fish harvesters' knowledge; science habitat; community recovery
Ryerson University	Accessible entertainment: making television, film, and theatre more inclusive	entertainment; accessibility; creative process; closed-captioning; enhanced captioning; communication technology
The University of British Columbia	Theoretical Elaborations into Archival Management in Canada (TEAM Canada): implementing the theory of preservation of authentic records in digital systems in small and medium-sized archival organizations	digital records; electronic archives; research data; digital preservation; digital record-keeping; authentic records; accurate records; e-government; e-science; digital art; archival preservation
Université du Québec à Rimouski	ARUC - développement territorial et coopération	développement territorial; coopération; gouvernance locale et régionale; politiques régionales

Organization	Application Title	Application Keywords
Université Laval	Yawenda: revitalisation de la langue huronne-wendat	hurons-wendat; langue; revitalisation; éducation; langues autochtones; premières nations
University of Manitoba	Building age-friendly communities, promoting active aging	gerontology; healthy aging; active aging; communities; participatory research; qualitative methods; survey methods; population studies
University of Ottawa	Promised land: the freedom experience of Blacks in Chatham and Dawn settlements	Canadian history; socio-history; Afro-Canadian; slave-narratives; Black experiences; cultural migration; community buildings; multiculturalism