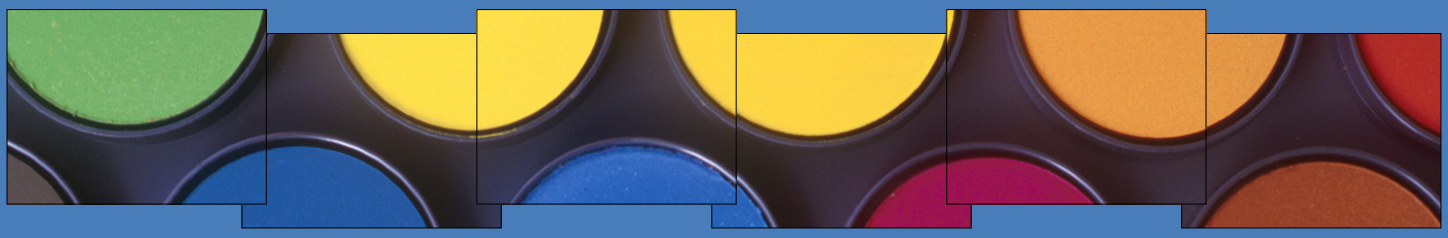

REPORT

European Commission

Directorate General for Research

Seminar:

"How Ways of Doing Research are evolving in order to address societal challenges"

Brussels, 18-19 November 2010

SCIENCE IN SOCIETY

CAPACITIES

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Foreword

Jean-Michel Baer Director "Science, Economy and Society" Directorate General Research

The Commission recently published its Europe 2020 Strategy for smart, sustainable and inclusive growth. It stresses the importance of a coordinated European response to current challenges faced by society, including social partners and civil society. This Strategy also identifies innovation and research as two key components. Research is therefore attributed a threefold mission. of:

- promoting excellence,
- driving competitiveness, and
- finding solutions for societal challenges.

This is a vast ambition and a unique moment for European research. Research is movement, evolution and cooperation. New ways of doing research are emerging regularly. But the question is to what extent and how these changes take into account elements related to societal challenges and social concerns.

This is the purpose of this seminar. We want to explore this issue with you in a very pragmatic way, starting from your practises. This is because you have been confronted with such questions, and put in place innovative ways to deal with them in defining your research agendas, in conducting your research, feeling the necessity to take into account societal needs. Research teams in recently emerging areas (such as synthetic biology) have integrated researchers from other backgrounds, and disciplines, social scientists for example, putting interdisciplinarity into practise.

Research teams have also opened their activities to citizen groups, patient organisations, and NGOs, because they felt the necessity to establish a dialectical relationship with society at each stage of the development of their research. Research in industry is also moving in that direction. This is understandable. Innovation processes are risky and costly. It is better to identify possible societal problems at the beginning of or during the process, than at its end as the new product comes to the market. So research is moving and innovative ways of doing research are emerging.

Let's be clear, we have not organised this seminar to define a new model for conducting research, it is not an attempt to define a new theory. Instead with you we would like to examine how you are addressing these issues and what are your motivations, what are the obstacles you are facing and what are the solutions you have found? What do you expect from public research policy and from public institutions to encourage your practises?

We have a Science in Society programme but at this stage we do not have the knowledge to conclude that these new ways of doing research can or will be generalised. This is another important question, how to assess this phenomenon. Are we at the beginning, or in the middle of a major shift?

We know that the building of the ERA, encouraging scientific cooperation to address common societal challenges, inevitably, will encourage that evolution, trigger new initiatives and challenge the more traditional practises of research and boundaries of scientific disciplines. Obviously this does not concern only Europe; it is not by chance that the next meeting of AAAS will be devoted next year to "Science without Borders".

So we consider this seminar to be very important for us as we start preparing the next Framework Programme (2014-2020) with new ambitions. Not only will we have to set up new actions in the SIS field but we will have to propose new initiatives, as Research for Society will probably be organised around major societal challenges.

Executive summary

The need to address increasingly complex societal issues is impacting ways of doing research. In the context of the Europe 2020 strategy for smart, sustainable and inclusive growth, the purpose of this seminar was to explore new ways of doing research in order to address societal challenges, collecting evidence from current practices, and identifying what can be supported and amplified. The one and a half day seminar used a participatory approach to activate the collective intelligence of the group in order to find new solutions for shared challenges.

The participants were experts from a broad range of research fields in public and private sectors, as well as Commission officers from the corresponding funding programmes. Once the expectations made explicit and the agenda framed, participants took part in a World Café to create an image of the larger context of how research is evolving in order to address the societal challenges. This was followed by a story-sharing exercise designed to elicit examples of practice from participants and to gather and compare information on motivations, challenges faced and overcome, and impacts of research.

On day 2, an Open Space session called on participants to explore key questions of their choice more deeply and develop ideas for bringing research practices forward. The final working session of the seminar consisted of an open discussion on European level actions that could support new ways of doing research. All suggestions for action were entered into an electronic Mind Map before participants voted on them, prioritising specific measures across different areas of leverage. The proposals receiving the greatest preference through voting were:

- the spreading of knowledge on new ways of doing research; workshops with policy makers and fora for analysis and exchanging experience amongst ongoing EU funded projects,
- building an online science-social network to encourage innovation and social relevance in research through engaging researchers with civil society and the public at large;
- carrying in depth analysis of current problems in research in the light of societal challenges,
- capacity building on science-society-policy interfaces;
- providing seed funding to encourage collaboration between research organisations and civil society organisations
- promoting multi, inter and transdisciplinary (MIT) research
- developing a new index for evaluating societal impact
- inviting industry to identify opportunities to reduce public spending or enable private investments
- creating fora for debate/definition of ‘societal challenges’ to inform research agendas and improve links between research and other policies;

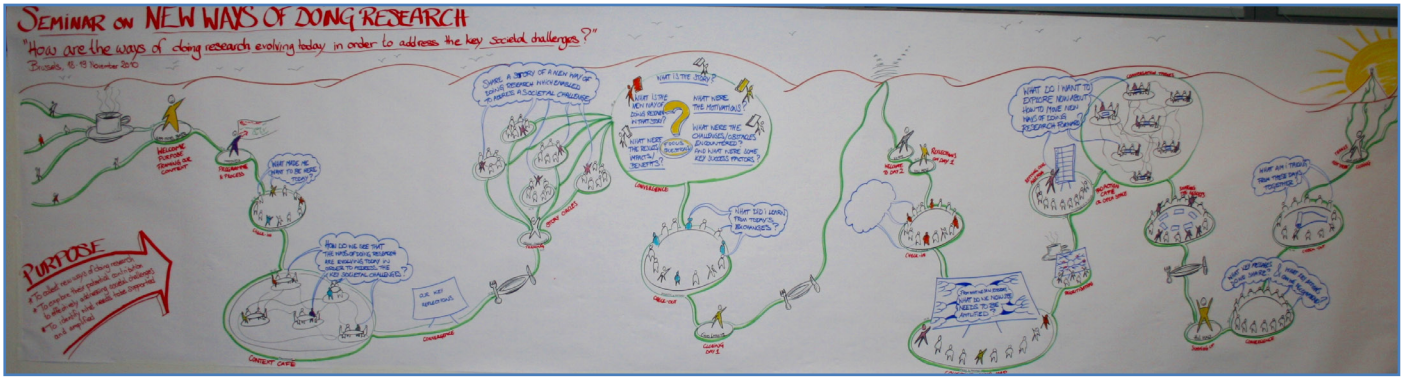
The outputs of this seminar are of great relevance for developing the Science in Society dimension of the current Framework Programme and to the preparation of the next Framework Programme (2014-2020). Moreover, in addition to contributing to the development of concrete proposals, the workshop made other valuable contributions through the very processes used to generate and harvest solutions, which according to participants, heightened their own awareness of how participative methods of knowledge creation might be implemented in their own investigative activities.

1. Framing the agenda - Day 1

Purpose of the New Ways of Doing Research seminar

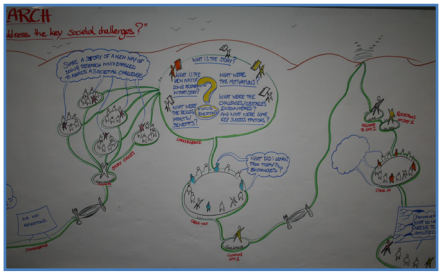
As Jean-Michel Baer pointed out in his opening speech for the seminar, the Europe 2020 strategy emphasises the importance of coordinating Europe's response to current societal challenges with civil society and other social actors. Problems associated with climate change, energy supply, resource scarcity and demographic changes, as well as questions over health and security and the sustainable provision of water and high quality, affordable food are influencing ways of doing research. However to what extent, and how these changes take societal challenges and social concerns into account requires further investigation. The purpose of this seminar was to explore these issues through the practical experience of participants, by:

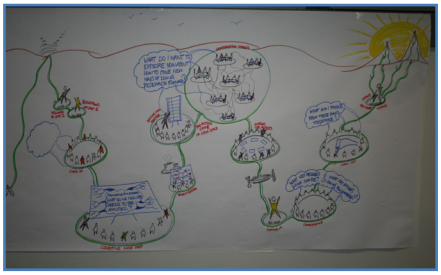
- **collecting evidence of new ways of doing research**
- **exploring their potential to contribute effectively to addressing societal challenges**
- **identifying what needs to be supported and amplified**



Participatory approach

The seminar was planned and implemented by a hosting team made up of members of DG Research and DG Human resources, using participatory methods. The overall approach is drawn from the Art of Hosting meaningful conversations (www.artofhosting.org), and has been developed within the Commission as a tool for imparting participatory leadership skills. Some well-known methods include Check-In/Out, World Cafe, Open Space, Harvesting, and Mind Mapping. Used in conjunction with each other, these tools work to activate the collective intelligence of a group in order to find new solutions to shared challenges. This approach is particularly helpful for engaging groups in large-scale conversations around strategic areas, and as such is becoming increasingly popular amongst organisations and communities worldwide. To commence, the process of the workshop was presented using the landscape above which gives a visual representation of the flow of the whole seminar.





Motivations and expectations – participants check-in

Taking part in the seminar were experts from a broad range of research areas and practices, coming from public and private sectors, and working in areas such as health, coastal and ocean management, ethics, social sciences, science studies, food and agricultural production, energy, transport, ICT, business development, publishing and international affairs. Also participating were Commission officers from corresponding research funding programmes. To begin, participants were invited to 'check-in' by introducing themselves and sharing their motivations for attending. Comments indicated broad recognition of the need for improved cooperation between researchers and social actors, appreciation of the value of integrative approaches in addressing societal challenges, and a need for better methods for assessing the societal impacts of these efforts. Other drivers rooted in participants' practical experience also emerged, namely, to:

- build and support social processes around research, making them more applicable
- ensure that research can actually influence behaviour in the 'real world', linking knowledge with practice to inform future public research funding
- encourage multidisciplinary research for complex and cross-cutting issues
- shape the development of technology in an environmentally sound, participatory manner
- critically analyse how research implicitly promotes certain policy agendas to the exclusion of alternative pathways of development for research and society

2. How ways of doing research are evolving

Building the bigger picture

To create an image of the larger context, a World Cafe format was followed to address the specific question "How do you see that the ways of doing research are evolving in order to address societal challenges?" Three rounds of conversations generated key insights that were then shared in an open discussion and grouped into clusters (See Mind Map in **Appendix 1**).

In performing this task, participants confirmed that new ways of doing research were evolving, but unevenly so. Observed were:

- the changing **definition of science,** which has shifted from 'investigation in order to understand', to 'investigation in order to predict', but has also involved a broadening of the notion of 'expertise', and is impacting the social role of research
- emergence of **societal challenges** that require collaborative and inclusive means of investigation due to their complex and transversal (rather than sectoral) nature
- a rise in research **engagement with social actors**, but with the need for more attention to be paid to finding the optimum balance between top-down and bottom up approaches capable of balancing structured knowledge with rich, local-level experience/information

A number of other critical trends emerged, such as:

- a rise in **interdisciplinary approaches** that recognise different perspectives and values, address power imbalances, integrate transversal issues, and are concerned with impact evaluation
- the increased importance of **dissemination** of research findings to non-research actors by more engaging means, and a sense of greater responsibility amongst scientists in valorising their own research results
- recognition of the potential from better **integration of the social sciences** in creating more representative research, and in mediating between 'hard' sciences, policy making and society
- increasing attention to **research agendas,** in terms of how research agendas are determined and prioritised, but also questioning the level of democracy within these processes, and taking into account the essentially political nature of decision-making involved

Sharing stories

In the next phase of the seminar, over 10 participants volunteered to share their own stories of how a new way of doing research had addressed a societal challenge. While each story was told, 5 other participants listened, each with a focus question to harvest information on:

- What is the story about?
- What were the motivations to engage in this?
- What was new in this way of doing research?
- What were the challenges / obstacles encountered? What were some key success factors/enablers?
- What were the results / impacts / benefits?

The different stories of new ways of doing research, covered a wide range of research areas:

- Ethical Aquaculture (Matthias Kaiser) was about developing an ethical aquaculture food index to help importers and consumers make responsible choices to promote ethical and sustainable aquaculture trade between Asia and Europe.
- HELIO: Development of Indicators to Measure the Contribution of Energy Systems to Ecodevelopment (Stephane Pouffary) is examining the impact of changing climactic conditions on energy systems and preparing recommendations to help decision makers climate-proof energy policies.
- CREPE: Cooperative Research on Environmental Aspects of Agriculture in Europe (Les Levidow) brought CSOs and researchers together to carry out cooperative research on environmental issues in agricultural practices and innovations in the context of the Knowledge Based Bio-Economy (KBBE) policy framework.
- FAAN: Facilitating Alternative Agro-food Networks (Sandra Karner) engaged CSOs and research institutes in cooperative research to analyze how current policies facilitate hinder or shape the development of alternative Agro-Food Networks, and elaborated policy recommendations.
- Evaluation of HEMS (Helicopter Emergency Medical Services) in the Netherlands (Wil Botman) aimed to improve the survival rate of persons suffering severe trauma in traffic, home or work related accidents by introducing and evaluating a new system of post-trauma treatment in the Netherlands.

- A New Way of Making Hypotheses? (Laurent Cliche) illustrated the benefits coming from a shift away from limiting hypothesis-driven approaches toward data driven approaches more conducive to research: dealing with issues of complexity; revealing unanticipated correlations; and sharing and recycling.
- FishBase: Building a Common Pool of Knowledge (Cornelia Nauen) was a project that aimed to build a repository of scientifically validated and standardised information on aquatic resources, and to provide equipment and training of African, Caribbean and Pacific states' nationals to improve their management in these regions.
- Fostering MIT-Disciplinarity for Societal Issues (Afonso Ferreira) is a story about the creation of a new committee for multi, inter and trans-disciplinary project proposals, and criteria for their evaluation.

- The PICRI programme of the regional government of Ile-de-France (Claudia Neubauer) is a French programme developed specifically to support participatory research. Funding encourages the application of innovative approaches and methodologies to questions of high social relevance, opening new paths of scientific enquiry.
- Development of Indicators of Sustainability in the Balearic Islands, Spain (Amy Diedrich) tells of efforts to generate scientific knowledge for sustainability within an Integrated Coastal Zone Management framework, focusing on the Balearic Islands as a case study.
- Fostering Social Actors' Participation in Science and Policy Undertakings with Web 2.0 (Afonso Ferreira) was about an online network put in place by the Brazilian Ministry of Culture to construct policies governing digital culture with broad civil society participation.

Key Insights from the stories

After the stories were fed back to the entire seminar group (see **Appendix 2** for summaries of all stories), key insights from the 5 harvesting questions were gathered. These are outlined below:

What is the story about?

- Looking for new approaches (eg. questioning mainstream paradigm of food production, new ways of making medical hypotheses, developing a multidimensional index for trade)
- Developing and applying methods of evaluation (of HEMS, of vulnerability, adaptation and resilience of energy systems, of human impacts on ecosystems)
- Restructuring research programming (funding for participatory and MIT research, research integration and involvement of social scientists)
- Strengthening relationships with policy (science-policy interfaces, CSO, government and science collaboration, role of industry)

What were the motivations?

- Need for broader perspective (different accounts of sustainability)
- Addressing burning/significant problems raised by society (road safety, bioenergy systems, ecosystems research, relationships to policy questions)
- Make a difference in impacts (superior impact, exploit potential of new discoveries, inclusion of CSOs as partners, to ensure societal relevance of research)
- To meet specific requirements in relation to research systems (to develop integrated assessment methods, assess and monitor sustainability objectives, design and implement locally relevant indicators, answer FP6 requirements regarding social scientists / stakeholder engagement)

What was new in this way of doing research?

- New ways of combining knowledge and involving knowledge owners in research (inter and transdisciplinarity, patient involvement in data generation, bottom-up CSO involvement, incremental participation, local definition of sustainability objectives and prioritisation/ evaluation of objectives by multiple stakeholders)
- Conceptual approaches and paradigms (priority objective setting, strategic approach that values diversity, data driven approach to generate hypotheses, multicultural ethical assessment framework, incremental implementation)
- Connecting research with policy makers (new processes in (quasi) real time, iterative approach with policy, strong political context)
- Funding research (100% funding of CSO research)

Challenges and key enablers?

Challenges

- Opening up research policy frames (raising visibility, getting scientists interested in linking with policy, clustering sectoral projects to deal with societal dimension, getting access to and convincing policy makers)
- Dealing with cultural cleavages / gaps (how to combine scientific rigour with participatory processes, high commitment and trust needed, different demands of partners, NGO unfamiliarity with research activities, public perceptions of aquaculture, different organisational structures)
- Resources (time, money, priorities for interfaces, time consuming complex processes, how to sustain funding for a public good, or for unpredictable results, lack of support to governance structures for coordination)

Enablers

- Managing diversity (of knowledge resources, integration of social, economic and environmental issues, open/flexible iterative and participative processes)
- Quality of science/processes involved (focus on content and delivery, scientific leadership with a broad base of experience, rigorous high quality processes)
- Policy drive (political will, permanent links to policy context and involvement of stakeholders and policy-makers from the start)

Results / impacts / benefits?

- **On policy:**

  More direct impact; proposals to government; legislation informed directly by civil society actors; uptake of results in policy processes; less conflictual way to achieve policy change; alternatives to dominant paradigm & techno-fixes; longer term partnerships and new opportunities for cooperation between research, policy and civil society

- **On research systems / strategies:**

  Enriched research of high societal relevance; broadening of research analytical frames and methods; impact on teaching transdisciplinarity; combination of scientific rigor with citizen expertise

- **On project outputs vis a vis societal questions:**

  Building CSO capacity to engage in research; intervention through CSO activities; unanticipated solutions to problems; strong dissemination impacts; application of research in / outside of science; project wide integration of ethics; development of holistic approach; expansion of programme / training to another region

Learning from day 1

At the end of day one, participants were asked to record their impressions of what they had learned from the day's events and present them to the group in turn, with the purpose of sharing and stimulating emergent ideas. Overall, responses revealed that participants had valued the opportunity to share stories as they provided an opportunity for mutual learning and for deeper individual reflection. While it was clear that questions remained, it was also evident that more needed to be done to support integrated, interdisciplinary research that would be able to address issues increasingly characterised by uncertainty and complexity. What was also apparent was a shared belief in the importance of deepening investigations into new ways of doing research. Three clear themes emerged from the comments submitted:

Common questions and concerns:

It was evident that participants shared questions and concerns, regarding for example, when and how to engage stakeholders, and how to learn from each other to be able to explore the fruitful research avenues out there. It was recognised that there are different experiences of the clear benefits of wider stakeholder engagement for science and society, but there was also a high level of motivation observed within the group, and willingness to experiment on design

On storytelling:

Storytelling with focused listening was seen as a powerful and enjoyable way to share, learn and reflect on the bigger picture of how research is evolving. The stories, though they came from a broad range of research topics, had much in common in terms of motivations, success factors, and formidable challenges that were negotiated with flexibility, commitment and appreciation of the importance of process. Stories need to be shared more in search of new combinations, new tools or approaches.

On research:

Researchers still have a poor understanding of how to relate what they do to addressing societal challenges, so room for joint reflection is important. Furthermore, there are different roles of science, and many ways of conducting research. Engagement of stakeholders presents new challenges: it is time consuming and requires up-skilling at both (research and civil society) ends. Furthermore, matters of how to relate research to policy objectives, how to define research objectives from a policy point of view, and how to communicate with policy were of concern. Willingness and capacity were seen as key issues, and behavioural and structural changes were called for, along with a well-supported and integrated multidisciplinary approach. Ultimately there was hope for critically engaged science.

3. Moving New Ways of Doing Research forward Day 2

Setting the direction for Day 2

With the stage set for the day's upcoming activities, the seminar began with some reflections on the proceedings of the previous day. It was noted that participants' perceptions of how research was evolving to address societal challenges varied. Some respondents felt that they did not see research evolving from where they stood. In this sense the seminar was seen as a much needed exercise. Other responses pointed to the fact that societal challenges have seen not just new ways of doing research emerge, but new challenges and questions as well. Some of the more pragmatic questions related to:

- How best to engage social actors, and deal with the uncertainty that looms in doing so;
- How funding can be better designed to achieve desired goals;
- What is needed for better mediation – how we can listen better to the knowledge out there already, and what the role of social sciences can be in this;
- How we can better communicate research results, and what the role of researchers should be in valorizing results / assessing technology; and
- How networks can be used more effectively

Other questions were of a more general character such as:

- On what sort of processes should research agenda setting be based – top down, more democratic processes, through an integrated learning path;
- What is "truth" and how is the definition of science changing?

Emergent issues - participants check-in

Participants were next asked to focus on the question of what insights/thoughts were coming to mind. This was to prepare them for the work that lay ahead in identifying what they themselves wanted to explore about moving ways of doing research forward. Participants took time to each write down their thoughts, sharing them with the group in turn.

- Recognition of a move towards complex systems – accepting uncertainty and the need for changes at every step of science
- Importance of experiences and interactions between the sciences
- "Prosumers" concept – there is a need for a context that allows for this
- Is NWDR just an alibi for mainstream science?
- Do we really challenge mainstream science?
- Integrating CSO actors – do research actors really want to? There has not been much progress over last decade
- Transversal issues need to be discussed not only by social scientists but also by natural scientists
- This seminar itself felt like doing a new way of doing research
- What if DG RTD was not only a hosting but also a governance body?
- Put more effort into analysis of already performed research
- Definition of political agenda in challenges
- Richness of international cooperation for new ways of doing research

- Power of storytelling – there is a deficit of this in research, and the search for sensational success stories is problematic
- Nothing is dramatically new but there is a lot of resonance
- Stakeholder fatigue is increasing - they don't want to be involved
- How things are perceived is clearly changing
- Increasing links with political institutions and processes, governance, and citizens is needed
- Systems need time to change

These comments, whilst indicative of important outstanding questions, also signified the evolution of concrete ideas for moving research toward better meeting societal demands. The stimulation of such thinking was to be continued in the Open Space session to come.

Open Space for moving research forward

The goal of an Open Space is to create time and space for participants to engage creatively on issues of concern to them. The participants were therefore invited to call on key questions of their choice and host a discussion session. 1 2 sessions were called, and participants were encouraged to join the group(s) that interested them most, or that they felt they could contribute to. As topics were put forth, those that were invited to merge if so desired. This resulted in the following sessions:

- **How to increase scientists' responsibility in addressing societal challenges? + How to increase scientists' incentives to conduct socially relevant research? + How can we enhance / achieve mutual benefit for those involved in new ways of doing research?**
- **DIP-Sea Project : Diseases Knowledge Improvement with Patients involved in Research**
- **Social values as drivers for research? How?**
- **What tools/approaches do we currently have to engage CSOs in research? What are the gaps?**
- **Societal challenges as partisan agendas on common problems? + What answers / what research to societal challenges? Common/shared understanding of challenges does not mean shared understanding of answers to give**
- **Participative network for engaging civil society (The Scientific Facebook): scope, needs, specification, how + The 'intermediary' role(s) between society and research**
- **How to organise scientific international knowledge accumulation & learning to better address societal challenges and action?**
- **What does new ways of doing research mean/imply in terms of accessibility to knowledge?**

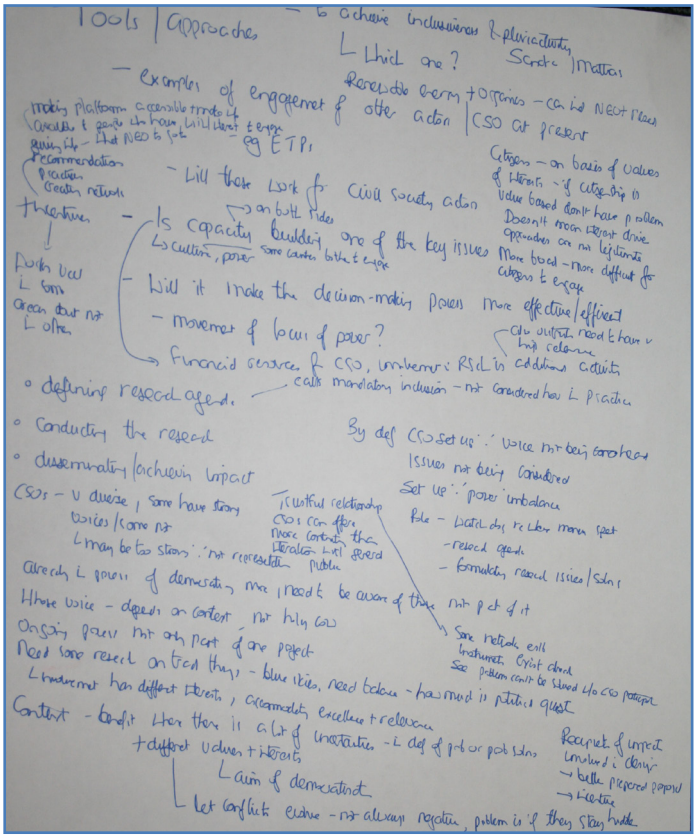
Once the discussion time of the Open Space topics had run its course, the leader (or proposer) of each topic gave a short presentation to the entire group on the concrete solutions that their group had come up with. These are summarised below.

Current tools, approaches, and gaps to engage CSOs in research

Maeve Henchion

This discussion raised the issue that engagement with CSOs may not always be appropriate, especially where 'blue skies' research is being conducted. The balance in terms of research that is blue skies and research that warrants engagement is somewhat of a political decision. While it is felt that there is currently no danger of too much participation on research related to agri/health/environmental issues, the engagement that exists may be inappropriate and/or may not include a representative population. There are a number of models available where the aim is to achieve inclusiveness and pluralism, and while sometimes it may be appropriate to have CSOs involved in such models, at other times might be best if separate vehicles for engagement are used.

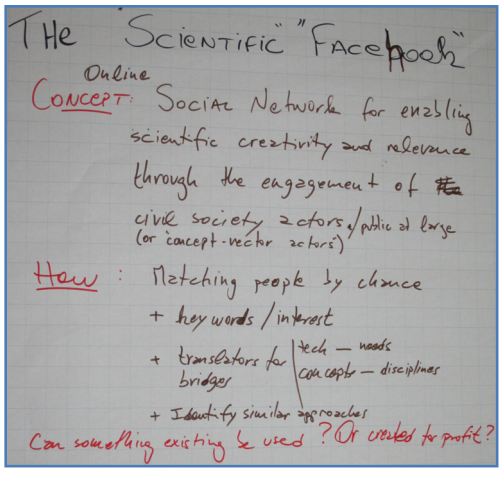
The process undertaken is often furthermore more important than the results - tools need to be used in the context of trust-based relationships which take time to establish. Trust and willingness however are not sufficient for engagement. In applying tools, the diversity of CSO concerns, agendas, languages etc, need to be acknowledged as well as CSO representativeness. It was seen as appropriate to use tools for engagement where there are high levels of uncertainty, and where different values and interests are at work that need to be exposed. Gaps were identified however in terms of tools for CSO engagement that can better accommodate CSO diversity (agendas, languages, concerns and capacities). The potential of some tools to achieve participation was seen as underexploited, such as science weeks/cafes which offer the potential to achieve greater citizen engagement.

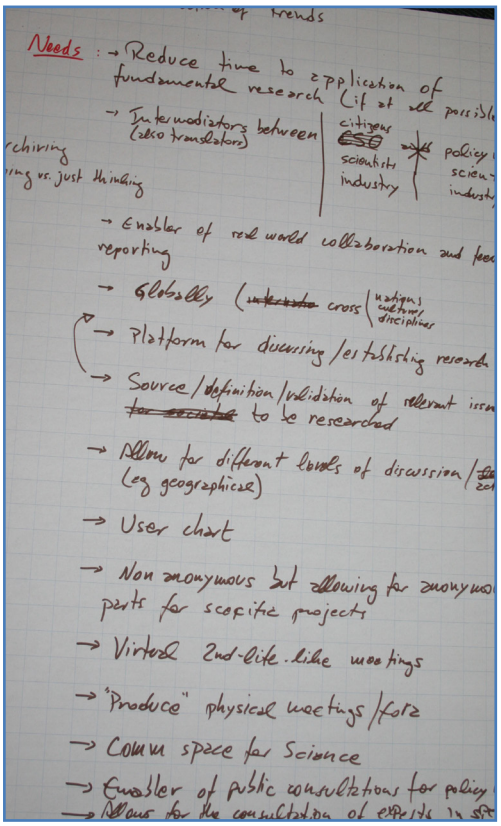


The online science-social network

Afonso Ferreira

This session developed a concept to create an online social network for enabling scientific innovation and relevance through engagement of CSO actors and the public at large. This tool was conceived to function as a sort of matchmaker, whereby people could connect using keywords, interests or by chance. It would also act as a translator and/or bridge between technology, concepts, disciplines and needs, and be able to identify similar approaches. The network could use an existing platform and possibly market actors to implement it and in addition to the above mentioned key functions, a detailed performance "wish-list" for the network was drawn up, including being able to work:



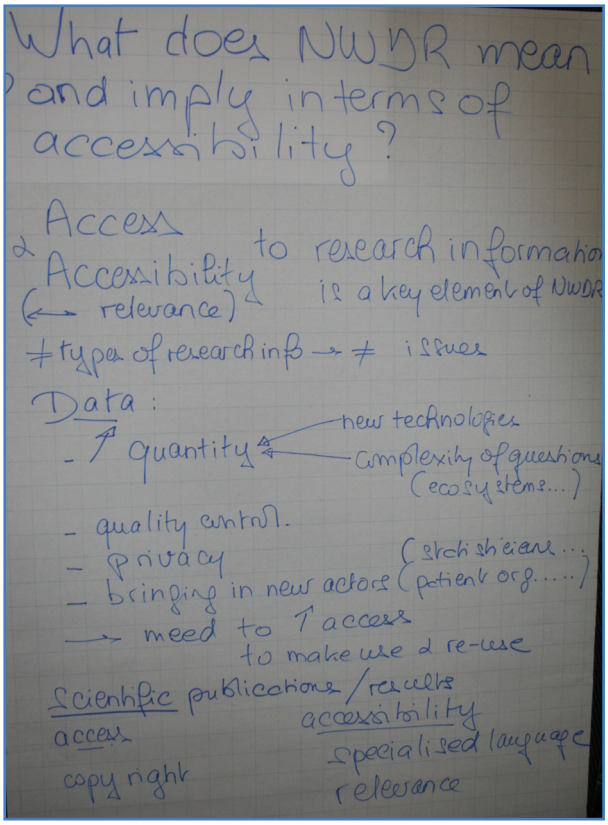


- as a platform for sourcing, definition, and validation of relevant issues to be researched.
- as a platform for discussing/establishing research agendas
- to allow for different levels of discussion/action (eg geographical)
- to provide intelligent intermediators and also translators between citizens, policy makers, scientists, and industry.
- to enable real world collaboration and feedback/reporting

In addition to serving as a space for communicating science, such a network should also provide for virtual 2nd-life-like meetings, enable public consultations for policy making, and allow for the consultation of experts in specific fields/issues, ultimately acting as a joint platform for doers and thinkers.

New ways of doing research and implications for access and accessibility

Celina Ramjoue and Viviane Willis Mazzichi

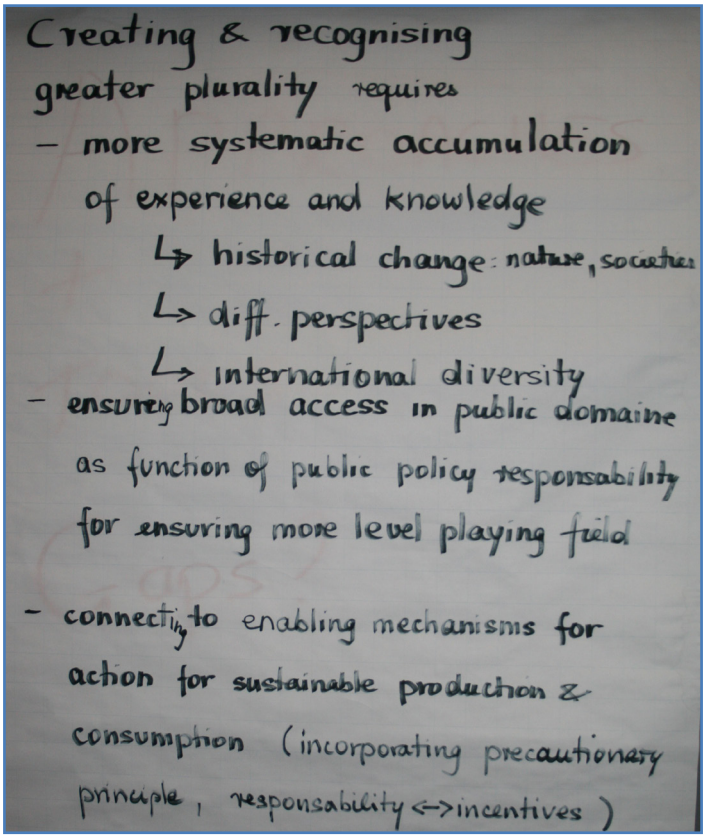


New ways of doing research involves wider sets of partners with different means, cultures and knowledge. Facilitating access to and accessibility for all to research is therefore key to encouraging new ways of doing research. Facilitating "access to research" relates to the means by which research information is made available, while "accessibility" encompasses the resources and processes which make research information meaningful to potential users (adapting the language, developing a multi-disciplinary / interdisciplinary approach to respond to the questions raised).

It was noted that different types of research information raise different issues. Data for instance involve issues of access. Data has increased considerably in quantity in relation to new exploratory technology and the increased complexity of questions under investigation. Quality control is also an issue, as is privacy, and as it is costly to collect and maintain. Re-use of, wide access to and collective management of data is important. Scientific publications involve issues of access (copyright) and accessibility. Increased accessibility of scientific publications may lead to new interdisciplinary activity. Possible incentives to improving access and accessibility were the inclusion of specific requirements as a condition for funding, in evaluating proposals and scientific careers. Research dissemination strategies could also pay greater attention to the accessibility needs of potential users and contributors.

Organisation of international scientific knowledge accumulation and learning to better address societal challenges and action?

Cornelia Nauen

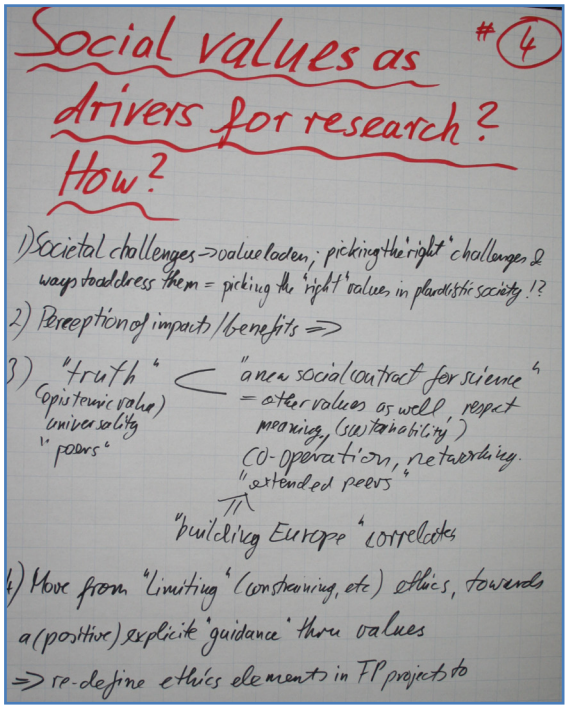


This discussion addressed the topics of social inclusion, the need to for greater plurality of perspectives in research, and the importance of long-term scientific investigations of structural and dynamic changes of natural and social systems. There is a need for plurality so that different perspectives and social groups have their legitimate place in society recognised and the ability to exercise their citizens' rights and responsibilities. This need for inclusiveness is heightened further in the light of global challenges to sustainable living on Earth.

Results from long-term scientific investigation of structure and dynamic change of natural and social systems are ever more important in this context (means, not only thinking in terms of 3-year-data-sets generated within one project). Increasing space for alternative action, in addition to analyses, is essential for our ability to develop transitions towards more sustainable ways of living. Recommended were: a more systematic accumulation, structuring and analysis of knowledge taking into account historical change in nature and society, recognising and representing different perspectives, and promoting international diversity and solidarity in an interconnected and interdependent world; widened access to knowledge in the public domain as a function of public policy to ensure a more level playing field; and more effective connection of research to enabling mechanisms for action for sustainable production and consumption.

Social values as drivers for research - How?

Matthias Kaiser



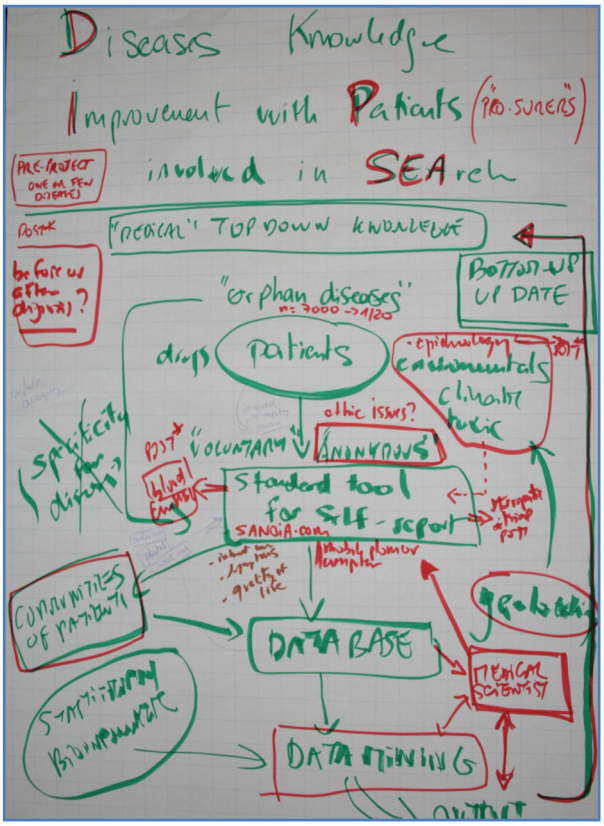
The term "societal challenges" is not objective but value laden. i.e. it is evaluative in terms of ascriptions of harms and benefits. Thus this refers us back to the point of who defines the problem, and thus the issue of being in a position to pick the right problems, i.e. being to assume to have the "right" values. In pluralistic societies, this is not a given. Traditional science only ascribes "epistemic" values to science, in particular "truth", and excludes other (social) values to maintain some kind of "objectivity". However, these days this traditional view is being challenged on several counts, in particular, calls for a "new social contract for science" (as voiced first during the second half of the 1990's) an example of efforts to point to social responsibilities of science that by far exceeded epistemic responsibilities.

Another issue was that although uncertainties accrue to boundaries, predictions, states, etc, researchers are expected to cast descriptions in terms relevant to their management (such as resilience or precaution). Deeper analysis shows however that both system uncertainties and system-stakes can vary considerably, requiring a post-normal science approach with a different form of quality control, so-called extended peer-review. It is also necessary to distinguish between ethics and values: ethics are typically conceived negatively as constraining action, and values as positive, action-guiding elements of identity and orientation. As defining "societal challenges" involves conflicting values, there should be a greater focus on values (rather than ethics) in European projects, especially in response to calls for a new social contract for science.

Diseases knowledge improvement with patients involved in research (DIP-SEA)

Laurent Chiche

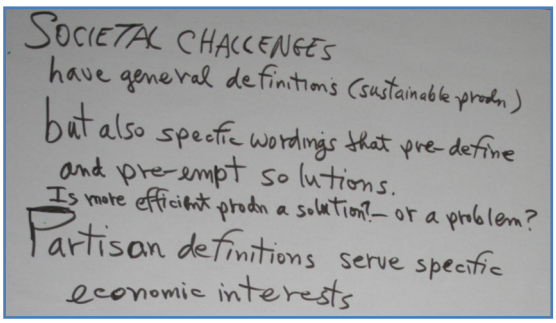
Traditional knowledge of disease is limited and struggles to capture the complexity and singularity of patients of orphan diseases, which can present heterogeneous symptoms. This discussion proposed a project involving patients in the discovery of new knowledge concerning their orphan diseases. The goal of the proposed project is to generate a large and evolving database including symptoms, medical events and treatments, intercurrent events, and environmental parameters (i.e., food) self-reported by patients diagnosed as having an orphan disease.



Self-reporting will be possible through implementation of an informatics interface (web and/or mobile access) covering European countries (diffused with the help of associations of patients, medical community and general medias), and will be performed by voluntary patients, already diagnosed with one of these diseases. This unique means of collecting large amounts of unbiased data on patients' medical condition and other daily-life parameters could lead to the identification of specific patterns for a disease or a group of diseases, permitting the screening of previously undiagnosed cases on the basis of self-reported symptoms.

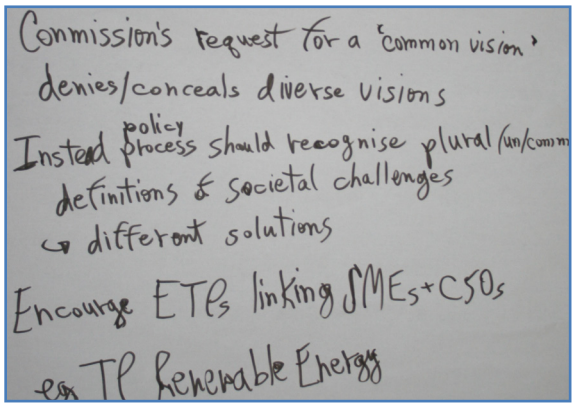
Defining Societal Challenges

Claudia Neubauer and Les Levidow



Societal challenges are being defined in ways which promote techno-fixes and dominant economic interests, thus evading the sources of unsustainable development. Industry-led European Technology Platforms (ETPs) were meant to involve "all relevant stakeholders" and are presumed to do so by policymakers, as a basis to shape R&D agendas. In the agricultural sector, ETPs emphasise raw materials and biomass as fundamental concepts of sustainable agriculture. Rarely do ETPs encompass alternative diagnoses of societal challenges, for example, TP Organics.

The knowledge community has a responsibility to present alternative diagnoses to politicians and research managers. Alternative options would include: low tech, open-access knowledge and respecting limited natural resources. Social innovation emphasises the use of knowledge that we already have: recombining this knowledge in new contexts, spreading this knowledge among citizens, organising greater access to knowledge, etc. As plural accounts are all legitimate, more diversity is needed in defining societal challenges and possible solutions to them. To this end, FP7 should include a call for ETPs initiated by CSOs and SMEs on any topic, in order to formulate more diverse research agendas than those promoted by current ETPs.

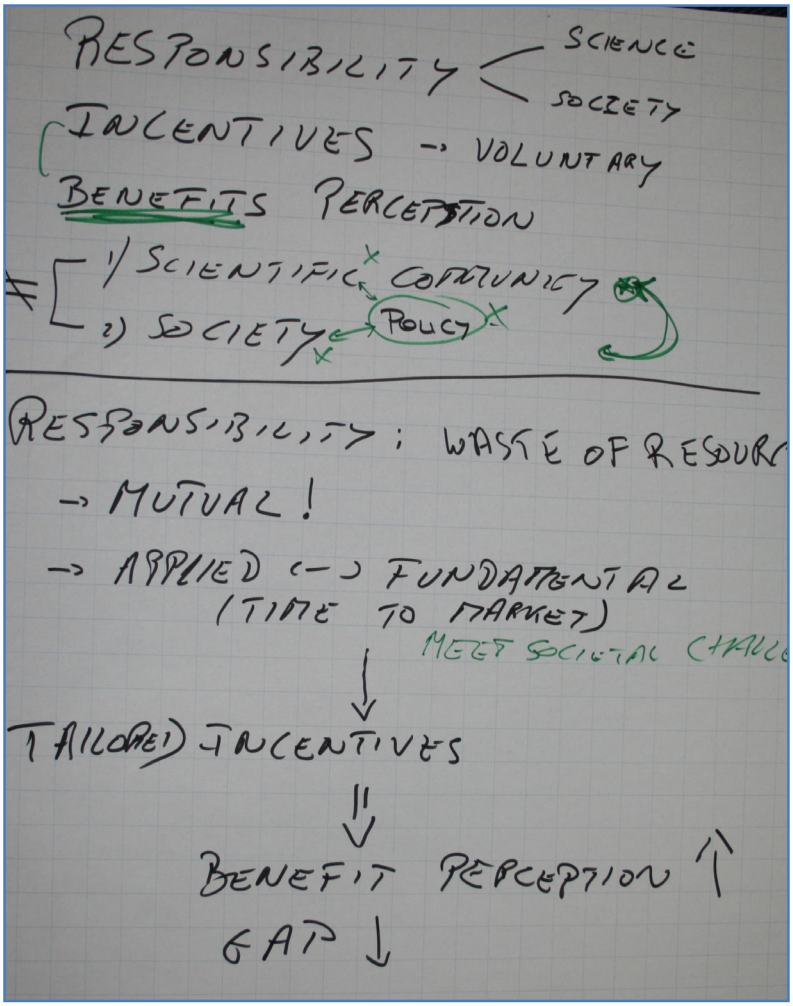


Incentives and responsibility

Amy Diedrich, Sandra Karner and Xavier Gellynck

The session focused on innovation in developing new ways of doing research, looking at how the costs and benefits of doing do are perceived by actors involved, and the question of responsibility for ensuring that research meets societal challenges. Guiding the discussion was a set of three interlinked questions: how to increase scientists' responsibility in addressing societal challenges; what incentives are required to involve scientists more actively in the valorization process of research results relevant for society; and what is the responsibility of society when dealing with socially relevant scientific results? The topic began with the idea that scientists often do not engage in valorizing the societal relevance of their research because they do not perceive benefits from doing so.

To effectively address societal challenges meaningful and constant interaction between actors from research, society and policy would be necessary. This would also allow for future research to be would be co-defined by non-research actors, and the form of research outputs could be tailored for a better uptake in practice. Policy might help facilitate these processes, at the same time gaining valuable inputs on how to create better framework conditions to enhance the impact of research results, and even how to support the implementation of new ways of research. To reduce the gap between the research community and society as a whole, recommendations were made for tailored incentives to credit scientists for engaging in new ways of doing research. The scientific community itself could also become more active in revising criteria for scientific excellence to include societal relevance.



4. Mapping what can be promoted and amplified

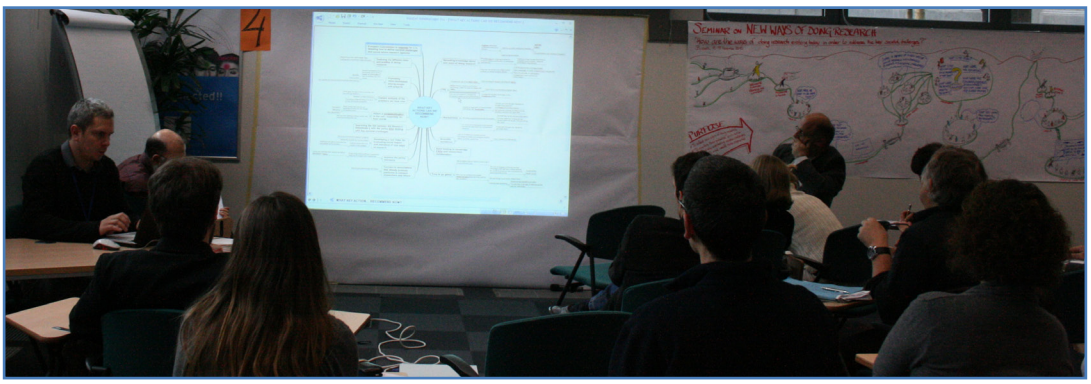
Having had the chance to discuss individual proposals for moving research forward in greater detail with small groups, the ground was now prepared for an open discussion on what could be done at the European level. All suggestions for actions were entered into an electronic Mind Map. Then participants voted on these, prioritising specific measures across different areas of leverage.

The results of the voting exercise revealed the following major priorities (in order of most to least votes, see Appendix 3):

- The **Spreading** of **knowledge** about new ways of doing research by for example: organising dedicated workshops with policy makers, directors of national scientific institutions and regional governments on participatory approaches to research; providing fora for the exchange of experience between projects leaders/coordinators and taking up issues related to how to integrate social science and participatory methods; and investigating EC funded projects for success stories, taking a case study approach to gain knowledge of what is happening 'on the ground', and making the benefits of participation/engagement more visible
- **Building an online science-social network** to encourage innovation and social relevance in research through engaging research with civil society and the public at large, considering how to link it with associations already promoting research-society platforms
- Carrying in depth **analysis of current problems in research** in the light of societal challenges by: translating the understanding of what goes wrong into simple proposals; outlining and sharpening different roles of research and how they relate to funding; improving research policy relevance; and supporting ability within the research community to map, and work within areas of uncertainty
- Supporting **capacity building** for the development of new approaches/tools by for instance: organising a summer school with DG environment on Science-Society-Policy interfaces; internal training for DG research on new ways of doing research; or offering accredited courses on European science-society interaction
- **Providing seed funding** to encourage collaboration between research organisations and civil society organisations
- **Promoting multi, inter and transdisciplinary (MIT) research** by: launching a programme to reflect on/improve and reward these practices, giving incentives to researchers to take part; supporting / facilitating exchanges between scientists of different fields; and adding courses on MIT research in any kind of discipline
- **Developing a new index for evaluating societal impact** and relevance of new ways of doing research; shifting focus from results to processes during project implementation; fostering reflection on defining evaluation criteria for scientific excellence in the context of societal challenges
- Inviting **industry** to identify opportunities to reduce public spending or enable private investments
- European Commission to create **fora for debate/definition of 'societal challenges'** in to inform research agendas and improve the link between research and other policies, considering the global dimension of societal challenges;
- European Commission to organise a **conference on 'social innovation'** to discuss forms, means and aims of innovation in general

Finally, Regarding the instruments / tools of the **framework programme** (FP) there were many suggestions, namely, to:

- increase the use of funding for **BSG** (benefit of specific groups) for CSOs
- include a call to form **technology platforms** that links CSOs with SMEs, open to any thematic focus
- recognise that FPs are not only meant to increase the competitiveness of European industry, and should include mention of **"societal challenges"** in its preamble
- require **social scientists** to take part in all FP8 projects
- extend the **duration of projects** beyond 4 years
- **promote value awareness** amongst people involved with projects, looking at pros and cons/of inclusion in proposals, and perhaps having one deliverable focused on this
- increase **funding flexibility** to include any relevant kind of actor
- install mechanisms to ensure **free access to data** and information
- distinguish between **different roles and profiles** of doing research in funding rules
- develop **links between DG Research and other policy DGs** dealing with societal challenges
- **support mechanisms** for the continuation of projects, for further dissemination or implementation, so that they do not end with publications or to reduce the time it takes for the application of fundamental research



5. In conclusion

Checking -out

Jean-Michel BAER stressed that Science in Society should not be ghettoised. This should be the beginning of a process. More knowledge and evidence are needed to demonstrate it is beneficial for science, society and industry. This is a track to be developed in the future.

To close, participants were invited to check-out by sharing their reflections on what they would take home from the seminar. Comments revealed appreciation of the **process** of exploration and format of the seminar, with one person observing that the participatory methods used in workshop were not only suited to but reflective of the very issues under discussion.

In terms of the **outputs** of the workshop, participants were delighted to have been able to arrive at concrete solutions in a very short period of time despite coming from different backgrounds/areas of research. The initiative of DG Research in this area was furthermore appreciated, although many questions remained, and an intense desire for **follow-up** was also expressed. In all, there were great hopes for the grounding of policy in critical discussions.

Next steps: closing comments

Paraskevas Caracostas thanked all the participants who made this seminar a creative event. This seminar is a step in a continuous process of reflection in the European Research Framework Programme, both within the Science in Society Work Programme and beyond, as other work programmes are (represented in the seminar) give growing attention to societal needs and concerns. All these programmes have launched annual calls for proposals, so there are opportunities to put into practice what has been discussed and recommended in this seminar.

The seminar recommendations are also an important input to the future developments of the "Science in Society" activities within the current Framework Programme and in relation to the next one which is planned to start in 2014.

We will look into reserving a space on the SiS website for collecting stories on new ways of doing research, showing the benefits for research and for society. We also need to consult research organisations in Europe on this subject further. Finally in February the Commission will publish a consultation paper on the next Framework Programme. Stakeholders will have a few months to express their views. This is an opportunity that should not be missed.

List of participants

Botman	**Wil**	Director General, European Bureau - Fédération Internationale de l'Automobile
Chiche	**Laurent**	Medical Doctor, Hôpital Universitaire de la Conception; Researcher, Centre of Immunology, Marseille, FR
Diedrich	**Amy**	Social Scientist and Researcher, Coastal Ocean Observing System of the Balearic Islands (SOCIB), ES
Ferreira	**Afonso**	Scientific Coordinator for International Affairs - CNRS Institute for Computer Sciences, FR
Gellynck	**Xavier**	Professor, Dept Agricultural Economics, Faculty of Bioscience Engineering, Ghent University, BE
Healy	**Hali**	Seminar Rapporteur - Doctoral Student King's College, University of London, UK
Henchion	**Maeve**	Head of the Food Market Research Unit - Teagasc Food Research Centre, IE
Kaiser	**Matthias**	Professor, Centre of the Study of Sciences & Humanities, University of Bergen; Director of the National Committee for research Ethics in S&T, NO
Karner	**Sandra**	Researcher, Inter-University Research Centre for Technology, Work & Culture, AT
Levidow	**Les**	Senior Research Fellow, Open University, UK
Neubauer	**Claudia**	Co-founder and Director, Fondation Sciences Citoyennes
Polidori	**Carlo**	Coordinator of International Projects- Universita della Tuscia, IT
Pouffary	**Stéphane**	Executive Director, HELIO International
Siebert	**Mark**	Business Development, Elsevier B.V., NL
Upham	**Paul**	Research Fellow, Tyndall Centre & Manchester Institute for Innovation Research, University of Manchester, UK
Van den Hove	**Sybille**	Director &Partner MEDIAN, Visiting Professor, Institute for Environmental S&T, Autonomous University of Barcelona, ES
European Commission		
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Dratwa	**Jim**	Policy Officer, RTD-B2 - Policy analysis and prospective
Giarmana	**Virginie**	Policy Officer, RTD-I2 - Sustainable development
Nauen	**Cornelia**	Policy Officer, RTD-D1 - International Cooperation Research Policy
Hogenhout	**Wide**	Scientific Officer, INFSO-F1 - Future & emerging technologies- FET Proactive

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European Commission

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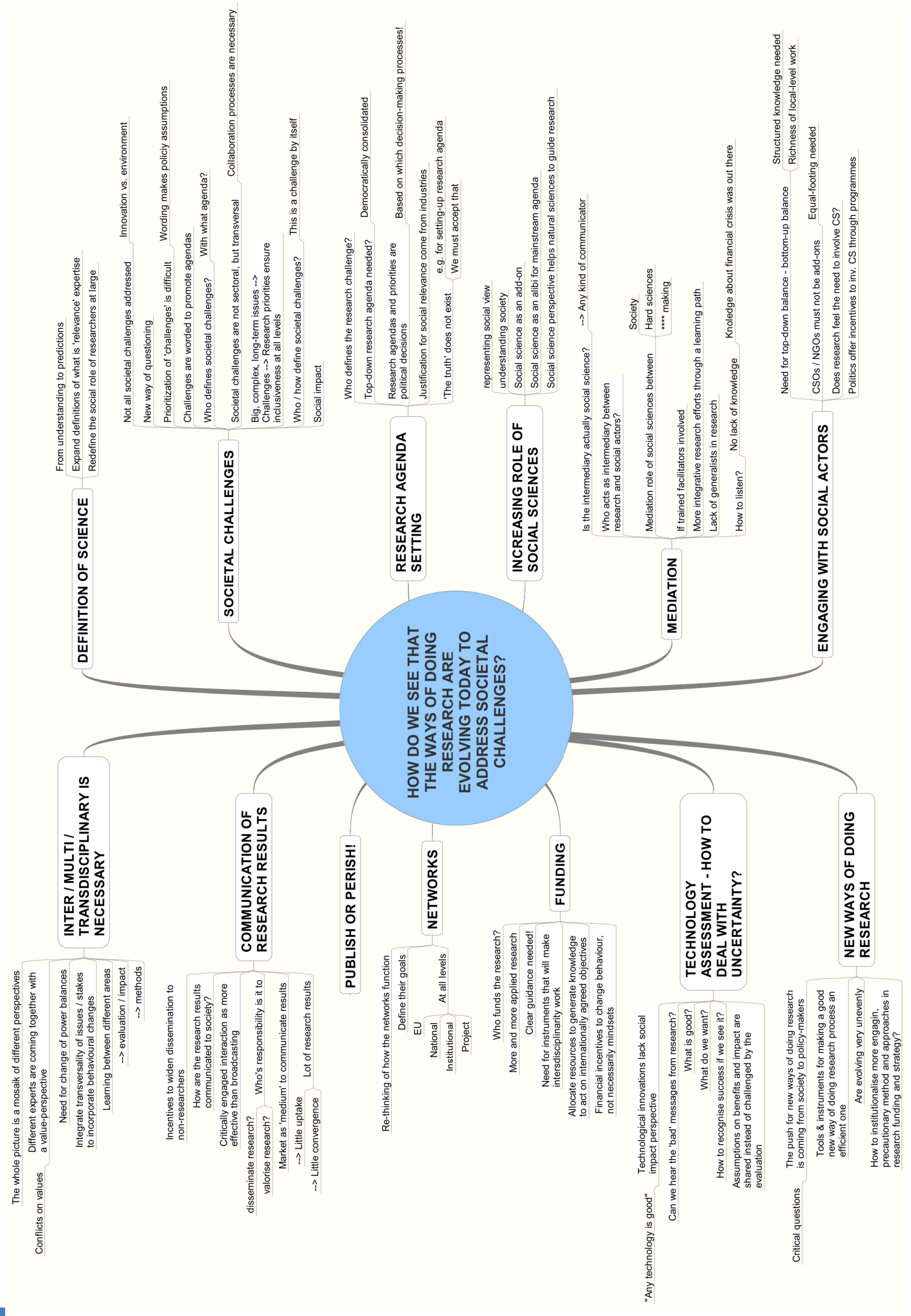
Paraskevas CARACOSTAS:	Adviser, RTD-L “Science, Economy and Society”
Gilles LAROCHE:	Head of Unit, RTD-L3 “Ethics and Governance”
Luisa PRISTA:	Head of Unit, RTD-L4 “Scientific Culture and Gender Issues”
Viviane WILLIS-MAZZICHI:	Policy Officer, RTD-L4 “Scientific Culture and Gender Issues”
Celina RAMJOUE:	Policy Officer, RTD-L3 “Ethics and Governance”
Dionysia LAGIOU:	Policy Officer, RTD-L1 “Horizontal Aspects and Coordination”
Paolo GIUSTA:	Planning & Programming Officer, RTD-R3 “Strategic Planning”

DG Human Resources

Matthieu KLEINSCHMAGER:	Internal Consultant, HR-B3 “Learning & Development Unit”

Appendix 1: New Ways of Doing Research: The Bigger



Appendix 2: Stories of NWDR

- **Ethical Aquaculture**
  (Matthias Kaiser)

SEAT (Sustaining Ethical Aquaculture Trade) was a project designed to look at ethical and sustainable aquaculture trade between Asia and Europe, with the goal of developing an ethical aquaculture food index to help importers and consumers make responsible choices. This project was motivated by appreciation of the different worlds of aquaculture production and consumption, and a desire to link them, making consumers more aware of the social realities behind the products they eat, and producers more aware of their impacts on global food chains. What was new about this project was its holistic approach to organisation and integration of the work of scientists, social scientists and ethics, a process that began during the preparation of the proposal, and that continued and intensified as the project continued. Ethical issues were furthermore put centre stage, and formed the subject of dedicated training for all partners in the consortium. Mutual learning processes as well were important to developing better understanding of the ethical and cultural values at work in Asia and Europe. This project is ongoing, and while the core objectives have yet to be met there have been some important results in terms of how research perception and methods of working have evolved. Exercises on values for example have been innovative and produced meaningful engagement with local partners, and have taught key lessons about breaking through cultural frameworks and prejudices.

- **HELIO: Development of Indicators to Measure the Contribution of Energy Systems to Ecodevelopment** (Stephane Pouffary)

The HELIO story is about the development of indicators to identify, assess, measure and publicise the contribution of energy systems and policies to ecodevelopment (sustainable and equitable development). The purpose was to examine the impact of changing climatic conditions on energy systems and prepare recommendations to help decision-makers climate-proof energy policies. The motivation for this work came from the observation that energy's role, while obvious in present and future challenges, is too often neglected when addressing ecodevelopment issues. Moreover, the lack of indicators to define the link between energy and ecodevelopment precludes the adoption of ambitious policies and mobilisation of adequate financing. The main innovation in this project was the combination of scientific rigor with citizen expertise, with non-research participation accorded the same importance as internationally recognised experts. This approach has already been successfully applied in several international projects implemented or currently under way by HELIO International: Sustainable Energy Watch (SEW), Vulnerability-Adaptation-Resilience (VAR), MEDRES EU project, The Participatory Energy Governance initiative (PEG), and TIPEE (methodology development – analysis of information for energy policies and ecodevelopment).

- **CREPE: Cooperative Research on Environmental Aspects of Agriculture in Europe**
  (Les Levidow)

CREPE brought CSOs and researchers together to carry out cooperative research on environmental issues in agricultural practices and innovations in the context of the Knowledge Based Bio-Economy (KBBE) policy framework. In CREPE, CSO partners saw opportunities to strengthen their research programmes and to extend their CSO networks. Academics sought access to wider stakeholder networks – in developing the research process and in disseminating results. Partners also sought to challenge prevalent policies regarding sustainable agriculture as a basis for policy intervention on CSO mobilisation to potentially shift policies and/or practices towards alternatives. What was new in this way of doing research was the level of close cooperative engagement between CSO

and research partners, facilitated by equal funding and autonomy of CSO partners, combined with emphasis on mutual learning processes and the creation of space for reflection on these. CSOs in particular were encouraged to reflect on their multiple identities as both researchers and activists. There have been many tangible impacts to come from CREPE. Partners have extended their networks for research and dissemination of results, had policy influence and successfully secured funding for follow-on cooperative research to explore agro-ecological methods. Moreover a series of workshops has raised the profile of CREPE internationally, one of them involving a number of other SiS funded projects inviting reflection on cooperative research with CSOs.

- **FAAN: Facilitating Alternative Agro-food Networks**
  (Sandra Karner)

FAAN (Facilitating Alternative Agro-food networks: stakeholder perspectives on research needs) engaged CSOs with research partners from five different European countries to conduct cooperative research on how policies facilitate hinder or shape the development of alternative agro-food networks. The project was driven by increasing concern across Europe about the effects of conventional food production systems operating ant European and global levels, and aimed to include viewpoints of stakeholders critical of the mainstream food production paradigm. What was new in this approach was that it was experimental, not only aiming to produce research but also with the goal of analysing the practice of cooperative research done within the project. FAAN systematically integrated different types of knowledge, and was designed from the start with strong bottom-up engagement processes and a high degree of CSO input. A transdisciplinary approach was also adopted, featuring alternation between steps of 'integration' and 'differentiation', to allow for meaningful knowledge production. The positive impacts of this project have been multiple: research was strengthened by complementary CSO expertise, and by the extension of CSO participation to other non-research actors, bringing a steady flow of "real world interventions" into the project. Researchers also gained insights into non-research partner expectations and were able to adapt project design in response to CSO needs. This made results more relevant to CSO partners, who were able to take up results in their campaign activities, something that was greatly appreciated by research partners.

- **Evaluation of HEMS (Helicopter Emergency Medical Services) in the Netherlands**
  (Wil Botman)

The HEMS scheme aimed to improve the survival rate of persons suffering severe trauma in traffic, home or work related accidents in the Netherlands. This project was driven by the controversial and hotly debated nature of the proposed initiative. Involving all relevant stakeholders in investigating the appropriateness of such a measure was therefore seen as the only way to reach a decision on the implementation of HEMS in the Netherlands. What was novel in the approach to this investigation was the use of a large scale field test (duration 5 years, investment 10 million) accompanied by evaluation research designed explicitly to link to decision making processes for implementation of the scheme. The results showed a positive benefit of HEMS on survival rates and a level of cost per life-year saved which was below the accepted criterion for the introduction of new medical treatments. This in itself however was not a sufficient basis on which to decide to implement this new means of treatment. Budgetary constraints were also important, however thanks to the communication and publicity around the experiment the health minister decided positively, and on the basis of this decision the whole of the Netherlands is at the moment covered by a network of 5 emergency medical helicopters.

- **A New Way of Making Hypotheses?**
  (Laurent Cliche)

This story highlighted the anticipated benefits of a proposed shift away from limiting hypothesis-driven approaches toward data driven approaches more conducive to dealing with issues of complexity in research; revealing unanticipated correlations; and sharing and recycling. Motivations for this approach are: the need to save time and money, the desire to promote a multidisciplinary approach with patients as actors; the aim of promoting access to new technologies; and the need to address challenges posed by orphan diseases in medical studies. New in this way of doing research is its data driven nature, the role of new technologies and new methods of analysis (involving bioinformaticians and statisticians), and the involvement of patients as 'experts' in their own diseases. The anticipated impacts of this approach are numerous, expected to lead to: the identification of new symptoms of diseases; identification of common findings amongst groups of diseases (similar physiopathology, treatments?); identification of deleterious or beneficial effects of treatments, or environmental conditions; the identification of needs, epidemiology of these diseases; the identification of specific pattern of a disease (signature); and improved screening of non-diagnosed patients. However, there will be significant challenges to be faced, for example, in obtaining funding for a project designed with emphasis on process rather than outcomes, in managing large quantities of data, in performing collaborative analyses, and in preserving database anonymity where the pharmaceutical industry is concerned.

- **FishBase: Building a Common Pool of Knowledge**
  (Cornelia Nauen)

The FishBase project aimed to build a repository of scientifically validated and standardised information on aquatic resources, and to provide equipment and training of African, Caribbean and Pacific states' nationals to improve the management of aquatic resources in these regions. Actors involved were European and other international scientists, fisheries sector administrators from 50 ACP countries, and NGOs. The goal was to create a level playing field for citizens around the world to access relevant scientific information in a user-friendly form, initially with special emphasis on ACP countries. There was also an element of justice in objectives to repatriate data and information extracted from developing countries in earlier periods under colonisation. What was new in the FishBase approach was that in building the database, resources were spent on organising already existing survey data and other scientific content in a way that allowed direct interrogation, yet enabled new questions and investment in people and institutions in ACP countries. Particular care also went into devising interfaces to help bridge the chronically large gap between information and action, enabling non-specialists to access scientifically validated information and carry out relatively sophisticated analyses. As a result of FishBase, fisheries administrations in ACP countries have used its information systems in their management work, to design surveys, to produce country lists for different reporting obligations etc. FishBase has become a resource 'par excellence' for conducting advanced research such as mapping climate effects on species distribution, ecosystems and potential for invasiveness, and has also bridged scientifically codified and local or indigenous knowledge. Furthermore, many user groups materialised that had not initially been 'targeted', such as students, sport angling communities and associated businesses.

- **Fostering MIT- Disciplinarity for Societal Issues**
  (Afonso Ferreira)

This story is about the creation of a new committee for multi, inter and trans-disciplinary project proposals, and criteria for their evaluation. The main motivation behind this initiative was the fact that governments, the European Commission, funding agencies, and several other research

actors all state that MIT-disciplinary research should be promoted, but very little has been done to provide incentives to researchers to walk this path. MIT-disciplinary researchers are not recognised, are seldom promoted, and face more obstacles than researchers working in disciplinary silos. The innovation in this initiative lies in the fact that it has been designed specifically to fostering MIT-disciplinarity by establishing transparent, fair, and effective evaluation procedures for project proposals. As a result, the first European-wide track for submitting MIT - disciplinary project proposals was established for the collaborative research across distinct fields. A dozen of such projects have been launched, grouping hundreds of researchers from practically all areas of the scientific spectrum.

- **The PICRI programme of the regional government of Ile-de-France** (Claudia Neubauer)

The PICRI (Partnerships of Institutions and Citizens for Research and Innovation) programme is supported by the regional government of Ile de France, the first public program of its kind owing to its participatory focus. This programme was set up in 2005 to fund projects that often address uncommon research questions, thus opening new avenues of research for science whilst producing results of high social relevance to CSO partners. A key enabler of the establishment of this programme was the strong political will of the regional government to strengthen direct and participatory approaches in the region. What is new about this programme is its criteria for eligibility, which aim to ensure full integration of a participatory approach. Funding conditions stipulate for example that research partners must be public research laboratories, CSO partners must be non-profit and independent of corporate or political interests and working on a collective objective of high social relevance. A multidisciplinary approach must also be integrated. A wide range of expenditures can be covered by funding, but most vitally, projects are 100% financed by this mechanism, which is especially important for CSOs. On releasing its first call 50 proposals were submitted, a number that had reached 170 by the fourth call. Moreover, the concept of the PICRI programme was adopted by the Bretagne region of France, which launched its Action pour l'appropriation sociale des sciences (ASOSC) in 2006

- **Development of Indicators of Sustainability in the Balearic Islands, Spain** (Amy Diedrich)

This story is about the development of a system of indicators for integrated coastal zone management (ICZM) in the Balearic Islands, Spain, with the Government of the Balearic Islands, the Mediterranean institute of Advanced Studies and the Economic and Social Council of Mallorca (representing civil society interests). A key driver of this project was the recognition of sustainability as a crucial goal by all parties involved: government, the scientific community and civil society in the region. The novelty in this approach lies in the use of a participative process with a multidisciplinary scientific team of natural and social scientists and civil society. The participative process was strategic (small number of groups with high representation) and incremental (partners were added over time). Where possible already tried and tested indicators were used and applied to already available data, so the focus of work was on coordinating existing data and methods rather than generating new material. Locally relevant indicators were defined in the early stages, and research objectives were prioritised and evaluated by a variety of stakeholders using social science methods. The approach to implementation has also been incremental, starting with those indicators requiring the least time and resources, and working with partners already involved in sustainability indicators. As a result of this project, the system of indicators was officially adopted by the CSO partner organisation, and endorsed by the regional government. In 2009, on this basis, a pilot was initiated in Menorca to test and adapt the implementation plan for the indicators and promote co-ordination amongst relevant agencies. Efforts are now underway to develop a proposal for a legislative decree to regulate the decision making structure needed to support the implementation of ICZM on the islands. This approach was also used to develop the

system of indicators has also been adopted by the Canadian government's department of Fisheries and Oceans to inform national policy.

- **Fostering Social Actors' Participation in Science and Policy Undertakings with Web 2.0** (Afonso Ferrerira)

This project was about an online network put in place by the Brazilian Ministry of Culture to construct policies governing digital culture with broad civil society participation. Motivation for this initiative came from the desire to establish new ways of engaging citizens in political, cultural, and innovation processes, and from evidence that social actors were keen to use online social networks. The novelty in this form of research lies in its integration of a large section of civil society in an open way, in the early stages of research, to promote new legislation. A significant result of the formation of this network was the proposal, discussion, writing, reading, consultation, revision and validation of a new piece of legislation by the network members.

Appendix 3: Mapping what needs to be supported