



European Commission



SIXTH FRAMEWORK
PROGRAMME



Participatory Science and Scientific Participation

**The role of Civil Society Organizations
in decision-making about novel
developments in biotechnologies**

FINAL REPORT

Partners

Consiglio dei Diritti Genetici – Cdg (Genetic Rights Council), Italy



The Genetic Rights Council (GRC) is a foundation involved in research and communication, providing interdisciplinary and independent information on biotechnologies. Since 2002, the Council works as an independent scientific and cultural association, to safeguard the basic rights of living beings and the ecosystem, debating with the scientific actors and civic society at national and international levels. With its staff, made up of experts with different backgrounds (biologists, agronomists, chemists, but also philosophers and theologians, humanists and social workers), the Genetic Rights Council promotes public and self-supporting research in bioscience and biotechnologies, with

particular attention to environmental and human impacts, in developed and developing countries. Another important GRC aim is to spread scientific culture, aware of its social importance and of the necessity of a proper governance of scientific innovation.

It has shown its scientific and social expertise, and management skills, in a series of project financed by both public institutions (i.e. Ministry of Agriculture and National Food Institute) and private structures (i.e. COOP, Cariplo Foundation). Some of the most relevant projects are:

- International encounter: Science and Society, the invisible border
- Wheat or Trouble
- Agrobiotech Observatory
- MediaBiotech

Web site: www.consigliodirittigenetici.org

Zentrum für Europäische rechtspolitik an der Universität Bremen- ZERP (Centre for European Law and Politics at the University of Bremen), Germany



The Centre for European Law and Politics is committed to interdisciplinary legal, socio-legal and political research with the focus on major political and legal developments within the European Union. The Centre has an established record of research mandated and sponsored by governmental institutions and most of the researchers employed have worked in dialogue with people outside academia. The general approach of the Centre is to treat scientific projects not as questions confined to the academic world, but rather as having an important impact on society in general. This makes it an ideal partner for PSx2 as a law expert and for the

compilation and analysis of the questionnaire. Further, it will be a source of contact with other scientific organizations and CSOs in Germany and Europe.

The scholars hosted at ZERP have a great experience in research on European regulatory issues in general, and on consumer protection in particular. The publication series of the Centre (published by Nomos) includes many titles that are the result of cooperative research. Recent projects include:

The Committees of the European Union (“Comitology”): The Practice of Risk Regulation in the Internal Market and its Legal Relevance Patent Law and Biotechnology – Tension between the Private and the Public Sphere in Respect to Scientific Research.

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Directly-Deliberative Polyarchy as an Institutional Ideal for Europe? Biodiversity and the North-South Conflict

Web site: www.uni-bremen.de



European NGO network on Genetic Engineering (GENET), Switzerland

GENET

European NGO Network on Genetic Engineering

GENET is a European network of non-governmental non-profit organisations engaged in the critical debate of genetic engineering, founded in 1995. GENET's main work is to provide information on genetic engineering for the member organisations and the interested public via email lists and to coordinate activities and campaigns. At the moment GENET has 48 member organisations in 27 European countries. GENET is registered as an international non-profit association under Swiss law, but 39 of the member groups are in EU member states. All other organisations are in Switzerland, Norway and several EU accession countries. Some of the member organisations have been working on the issue of genetic engineering for up to 20 years now.

The member organisations work on a range of different aspects of genetic engineering, ranging from plant and animal breeding, agriculture and food production to human genetics and medicine, and its implications on human health, animal welfare, biological diversity, the environment as well as socio-economic development. GENET's aim is to inform interested organisations and individuals and to facilitate the citizens' involvement in decision-making processes which have to guide the development of genetic engineering. GENET's aim and its existing network makes it an ideal partner for PSx2 because through the more than 50 member organisations, GENET also has contact with the wider national and regional networks in the whole EU as well as in other European countries. Especially in Switzerland important debates with policy makers, CSOs and scientific organisations took and take place which are of interest for discussion within the EU as well. In the last years, GENET has organized several international conferences. The last one in Berlin, January 2006, attracted more than 250 participants from 35 countries for discuss political, economic and scientific issues. GENET as a network as well as individual member groups have a track record of working as CSOs with scientists and/or on scientific issues.

Web site: www.genet-info.org



GeneWatch UK (GeneWatch), United Kingdom



GeneWatch UK is a science-based policy research group established in 1998. GeneWatch aims to ensure that genetic technologies are developed and used in the public interest and in a way which promotes human health, protects the environment and respects human rights and the interests of animals. Ensuring public involvement in the decisions that are made about genetic technologies are used is an important goal and GeneWatch also aims to increase public understanding of genetic technologies. Since its formation, GeneWatch has contributed to debates about the regulation of GM crops and foods and the risk assessment process in the UK and Europe. In addition, GeneWatch has been involved in public engagement exercises, helped develop multi-criteria mapping systems and produced a wide range of information materials about biotechnology. Therefore, GeneWatch has understanding of and experience in the interface between science policy/regulation and the public.

Web site: www.genewatch.org



Comité de Recherche et d'Information Indépendante sur le Génie Génétique - CRII GEN (Committee on Research and Independent Information on Genetical Genie), France

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CRIIGEN

As its name says CRII GEN is a Committee of independent research and information on genetic engineering. It carries its work with no political stand or any militant approach, but based on scientific research. Its activities are multidisciplinary and span over a large number of area: law, science (health, environment), sociology, technical (GMO traceability) and economics. The latest publications of its members are:

- 1 CRII GEN (2004) Société Civil contre OGM, ed. Yves Michel
- 2 Lepade C., Guery F. (2001) La Politique de Précaution, Presses Universitaires de France
- 3 Dupont Y. (2003) Dictionnaire des Risques, ed. Armand Colin

Web site: www.crii-gen.org

SA Eestimaa Looduse Fond – ELF (Estonian Fund for Nature), Estonia



EESTIMAA LOODUSE FOND | ESTONIAN FUND FOR NATURE

ELF (Eestimaa Looduse Fond - Estonian Fund for Nature) is an environmental NGO established in 1991 by biologists and conservationists, whose mission is to protect Estonia's rich biodiversity through the development and implementation of nature conservation projects, to offer expertise in the formation of public policy, and to work towards increased public environmental awareness through education. ELF is cooperating in these fields with individuals, business enterprises, organizations and state institutions. ELF has a well-working network of media channels which create many opportunities for significant media coverage. It is called "Greengate" channels, including the monthly supplement to the weekly newspaper "Maaleht" and "Päevaleht" (more than 70,000 copies), the Internet portal (www.greengate.ee) and radio programme. As part of the sustainable development issue ELF has been working on the GMO matter for the last 3 years. ELF is present in the Estonian Environmental Ministry's Gene Technology Committee, which decides on GMO approvals and risk assessment questions. ELF has been through recent years commenting legislation in both environmental and agricultural sphere, with regard to GMOs. ELF has also made numerous presentations and held seminars and conferences on impacts of GMOs in environment, agriculture and socio-economic field.

Web site: www.elfond.ee

Université de Caen Basse Normandie, Institut de Biologie Fondamentale et Appliquée (IBFA), Laboratoire Œstrogène et Reproduction (Caen University, Institute of Fundamental and Applied Biology, Oestrogen and Reproduction Laboratory), France

Université de Caen Basse-Normandie



The Institute of Fundamental and Applied Biology's aim is the diffusion of knowledge, the formation of and the development of fundamental and applied research in biology.

The main research themes focus on the female and male

gametogenesis, reproduction, sex differentiation. In particular, research activities target the cellular and molecular mechanisms involved in the expression regulation of the aromatase gene.

- 1 Richard S., Moslemi S., Sipahutar H., Benachour N., Seralini G.E. (2005) Differential effects of glyphosate and Roundup on human placental cells and aromatase. *Environ. Health Perspect.* 113(6):716-20
- 2 Nativelle-Serpentini C., Moslemi S., Yous S., Park C.H., Lesieur D., Sourdain P., Seralini G.E. (2004) Synthesis and evaluation of benzoxazolinonic imidazoles and derivatives as non-steroidal aromatase inhibitors. *J. Enzyme Inhib. Med. Chem.* 19(2):119-27

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3 Nativelle-Serpentini C., Richard S., Seralini G.E., Sourdain P. (2003) Aromatase activity modulation by lindane and bisphenol-A in human placental JEG-3 and transfected kidney E293 cells. *Toxicol. In Vitro* 17(4):413-22

4 Seralini G.E., Tomilin A., Auvray P., Nativelle-Serpentini C., Sourdain P., Moslemi S. (2003) Molecular characterization and expression of equine testicular cytochrome P450 aromatase. *Biochim. Biophys. Acta* 20;1625(3):229-38

Web site: www.unicaen.fr

Università di Perugia, Dipartimento di Biologia Vegetale e Biotecnologie Agro-ambientali e Zootecniche, Sezione Genetica e Incroci - DBVBAZ (University of Perugia, Department of Plant Biology and Agro-environmental and Animal Biotechnologies, Section of Genetics and Breeding), Italy



The history of the Section of Genetics & Breeding of the Department of Plant Biology and Agro-environmental and Animal Biotechnologies is tied to the history of the teaching of Genetics within the curricula offered at the Faculty of Agriculture. In 1925-26 Genetics was introduced as a minor part within the course of Agricultural ecology; in 1930-31 it became a full course; in 1959-60, when the Institute of Plant Breeding was created, research and teaching have started to interact and grow together. The Faculty of Agriculture of the University of Perugia has always attributed great importance to genetics, and it was the first in Italy to offer a position of Professor of Plant Breeding (1959) and of Agricultural Genetics (1975). Actually, the section of Genetics and Breeding of the Department is coordinated by Prof. Fabio Veronesi.

At the time of its foundation the main research topic was breeding of grasses and leguminous fodder crops. During the seventies attention was devoted to the rehabilitation of marginal lands through the use of varieties derived from local ecotypes and improved for seed yield. In the eighties the main topics were about the genetic resources and mutants of the reproductive system in plants, while in the nineties the studies of biodiversity and biotechnology were expanded.

Web site: www.agr.unipg.it/dbvba/

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Consejo Superior de Investigaciones Científicas - CSIC (Higher Council for Scientific Research, Department of Compared politics), Spain



The CSIC is the largest public research body in Spain. CSIC is engaged in a multidisciplinary scientific and technical research and provides scientific and technical advice to all the autonomous regions, to governments, and the private sector, and technology assessment in parliaments. The Unidad de Políticas Comparadas, UPC (Department of Compared Politics), is a research unit of the Humanities and Social Science Area of the CSIC. Being a centre committed to social and political research with a focus on comparative politics, science, innovation, research and development policy, and social policy and welfare state, the UPC offers an excellent research environment for the topic proposed.

UPC studies the change in the knowledge production system, with a focus on research centres and universities as well as researchers' labour markets and professional career. UPC is also committed to the analysis and evaluation of science, technology and higher education policies, comparative policy analysis and regional RTD policies. Furthermore, the UPC has included in its fields of research the relationships between science and political systems.

The UPC is currently involved in a project focusing on the Social Policy and Welfare State area of research which is entitled NURSOPOB (New Social Risks and Welfare Policy Trajectories). Starting in 2005, NURSOPOB is funded by the Spanish Ministry of Science and Technology, and will run until 2008. The project deals with the current developments of Spanish R&D Plan, specifically in relation to social change, Welfare State and public policy reforms.

It is also taking part in an EC-funded project entitled "Policies for Research and Innovation in the Move towards the ERA" (PRIME Network of Excellence). It started in 2004 and will run until 2008. It deals with a comparative analysis of various systems and policies of research and innovation in Europe. The objective of this programme is to understand the emergence and stabilisation of new multi-actor spaces and their governance arrangements as well as to study the role of key selected actors linked to new multi-actor spaces. Biotechnology is conceived to be an area most promising for the study of multi-actors spaces, their development and dynamics since this area of technology development is highly controversial.

Some of the latest publications of CSIC personnel involved in PSx2 are as follows:

- 1 Pavone V. (2004) Bioetica, biotecnologia e biopolitica. Sogni e incubi di un'utopia dell'eugenetica liberale. La Rivista del Mulino. Bologna, 355-366
- 2 Sanz Menendez L., Cruz-Castro L. (2003) Coping with environmental pressures: public research organizations responses to funding crisis. Research Policy, vol. 32, n. 8, 1293-1308
- 3 Sanz Menendez L., Bordons M., Zulueta M. A. (2001) Interdisciplinarity as a multidimensional concept: its measure in three different research areas. Research Evaluation, vol. 10, n. 1, 39-50
- 4 Sanz Menendez, L., Cabell, C. (2000) Expectations and learning as principles of shaping the future. Nick Brown, Brian Rappert & Andrew Webster eds.

Web site: www.iesam.csic.es

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