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CIPAST

CITIZEN PARTICIPATION IN SCIENCE AND TECHNOLOGY

Coordination Action
Science in Society

**Publishable Finale Activity Report
&
Final Recommendations**

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The present document is the publishable final activity report of the ‘**Citizen Participation in Science and Technology**’ (CIPAST) platform, launched in April 2005 with a three year “Coordination Action” work programme.

It was funded by the European Commission under the Sixth Framework Programme for Research and Technological Development, within the thematic “Science and Society” of the Programme “Structuring the European Research Area”.

Within three years, CIPAST fulfilled the three core objectives at the heart of its work programme by

- Setting up and expanding on a European network of different actors concerned by participatory procedures in science and technology.
- Developing communication and dissemination tools such as website, discussion lists and newsletters and creating a database devoted to participation in science and technology.
- Elaborating and testing through two training workshops a corpus of tools for capacity building and training, based on an original case-studies methodology.

Our aim in this report is to provide a summary of the activities undertaken which includes the results achieved over the full duration of the project, between April 2005 and March 2008, and to put forward a corpus of policy recommendations helpful for decision makers and concerned actors.

In the first section of the report, we present the project initial objectives, the consortium members, the work performed, the results, including the assessment of the methodologies and the approaches employed in the training activities.

In the second section, we draw on some of the lessons learnt at the national, European and cross-national levels, to bring forward a series of policy recommendations that should encourage specifically actions to further build on the achievements of the project.

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Section 1 – Project Execution

1 Overview of the project

1.1 Project objectives in relation to the state-of-art

To address the controversial issues raised by techno-scientific developments, the involvement of civil society is more and more acknowledged as a crucial necessity. In order to take into account the various points of view that enrich the decision processes improving the quality of decisions, **several methodologies** have been tested and assessed to organize that involvement, through formal procedures.

In Europe, a real experience existed in that area, but was still broken up and scattered according to the variety of national political cultures and history.

In that context, and in keeping with the challenges set up by the “Science and Society Action Plan”, **the “Citizen Participation in Science and Technology” (CIPAST) project was initiated in April 2005, focusing on the objective to structure a European platform for exchanging knowledge and experience concerning participatory procedures**, as a means to foster the construction of a European culture of civil society engagement, with socio-technical issues.

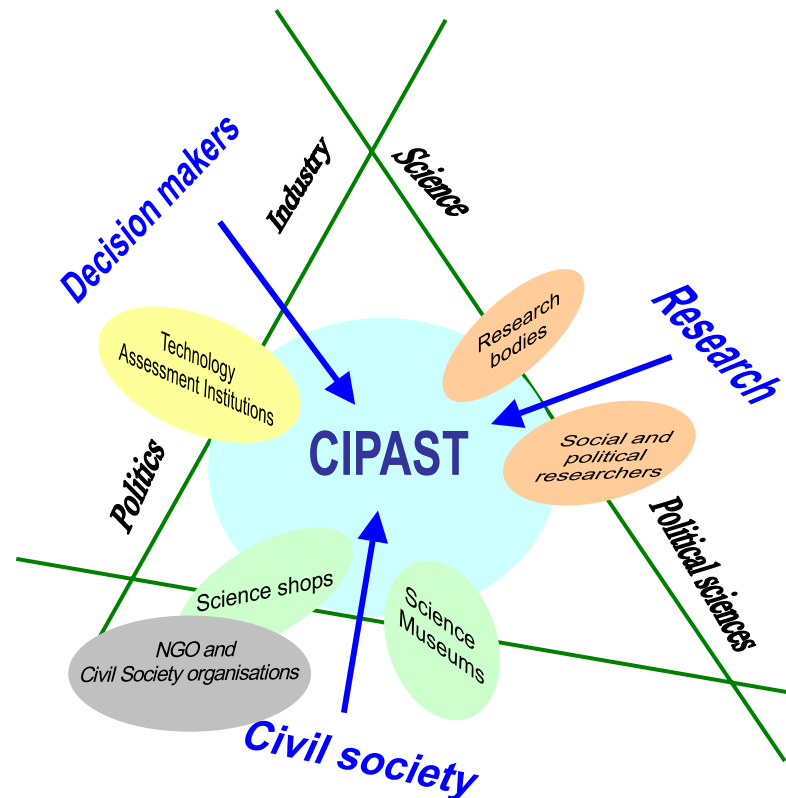
Citizen participation is carried out in various arenas and by organizations belonging to unlinked families of actors, ranging from parliamentary technology assessment offices, through science museums, science shops, as well as research institutes and academic teams, to civil society organizations such as NGO’s or patient associations.

Within a 3 year period European Commission-funded work programme, the CIPAST project aimed at bringing these diverse actors to work together on definite purpose, pooling their various capacities, and integrating their specific contextual perspectives through a common platform,. These initiatives achieved the dissemination of good practices, capacity building and critical self-reflection.

The three main objectives of the work programme were:

- **Structuring and expanding up a European network of organisations liable to implement participatory methods.**
- **Stimulating the exchange of information and experiences within this network and beyond.**
- **Fostering transfer of expertise through the implementation of training programmes to develop an integrated concept and material for capacity building.**

By building up a platform at the interface of politics and industry, academy, and civil society, CIPAST intended to become a catalyst for the different actors’ capacities and expertise in terms of participatory culture.



1.2 Project partners and work programme

Under the overall coordination of the *Cité des sciences et de l'industrie*, the CIPAST consortium gathered 12 partners with specific competences on citizen participation in science and technology, coming from different ranges:

- **two parliamentary Technology Assessment Institutions**, namely the Danish Board of Technology (Copenhagen, Denmark) and the Rathenau Institute (Den Haag, Netherlands);
- **four science museums and science centres** : *Cité des sciences et de l'industrie* (Paris, France); *Citta della Scienza* (Naples, Italy) *Deutsches Hygienemuseum* (Dresden, Germany); and *Bonn Science Shop* (Bonn, Germany);
- **two national research organizations** : *Institut National pour la Santé et la Recherche Médicale (INSERM)* (Paris, France); *Institut National de la Recherche Agronomique (INRA)* (Paris, France);
- **four academic teams involved in research policy**: *Centre for the Study of Democracy - Westminster University* (London, England); *Science & Society Interface – Université de Lausanne* (Switzerland); *Ecole des Mines de Paris / Centre de Sociologie de l'innovation* (Paris, France); and *Fondation Nationale des Sciences Politiques* (Paris, France).

For the purposes of allocating the work among partners, the CIPAST work programme was structured in three parallel subdivisions or “work packages”, which extended throughout the project.

- **Work package 1** :led by the Cité des Sciences, brought together all activities of scientific coordination and management.
- **Work package 2**, led by the Bonn Science Shop, organized the activities of networking, communication, and dissemination in which the whole consortium was involved.
- **Work package 3**, led by INRA, contributed to conceive and implement the training programmes in order to design the training toolkit.

Actions to achieve the main objectives of the project were strongly interdependent:

- On one hand, the activities of networking, communication and dissemination facilitated the preparation and the organisation of the training workshops as well as the diffusion of their outcomes. They also enabled the access to relevant information and knowledge for newcomers
- On the other hand, the implementation of the training programmes and the design of the training material enhanced the networking process, so that they nurtured a “community-building” process and facilitated the establishment of National Contact Points in European Union’s new Member States.

During the **first year of the programme**, from April 2005 to March 2006, actions that were undertaken focused mainly on designing and launching the networking tools of communication, such as website, newsletters, discussion groups, and database–, as well as on elaborating the methodologies for the training workshops.

From April 2006 to March 2007, the **second year of the programme** was dominated by the preparation, the implementation and assessment of the first CIPAST training workshop, held in Dresden, Germany, in June 2006, led to the consolidation of the CIPAST database. These actions set up the progressive establishment of a network of National Contact Points.

On the basis of these various tools and taking into account the experience gained from the first training workshop, **the last year of the programme** was characterized by the design of the second CIPAST training workshop, held in Procida, Italy, in June 2007. The project concluded in March 2008 with the design and the publishing of the CIPAST training package

2 Structuring and expanding a European network of organisations concerned by participatory methods in science and technology

CIPAST first task has been to identify partners, clients and target groups concerned by participatory procedures in science and technology throughout Europe.

Networking actions were initiated with the integration of various databases: existing national databases such as the Danish Board of Technology, the Swiss TA and the Rathenau Institute, European databases (Aarhus Convention and IFOK study) and with all partnerships that had been previously developed by the members of the CIPAST consortium. A base of 3000 contacts was collected.

Accordingly, priority was given to the involvement of actors coming from the civil society and from the new Member States of the EU.

All the different actors identified that were associated to the CIPAST project received information about ongoing initiatives concerning participatory procedures. To provide information to the network, lots of them participated to the CIPAST training programmes as trainees or as providers of expertise. They acted as information relay to disseminate at large the CIPAST initiatives.

Within three years, CIPAST achieved to set up “a network of networks” by bringing together European organisations in the field of science, technology, and society, which were already structured in European networks, such as EPTA, IGLO, ECSITE, ISSNET. Furthermore, CIPAST established structural links with other European consortiums involved in participatory processes such as ECD or PATH and used meetings of other networks (as for example the annual conference of the ECSITE network or the Living Knowledge conference of the international Science Shop Network) in order to expand its network.

In that general framework, three specific sub-projects were developed:

Surveying networks of European Patients Organisations

Drawing on the INSERM database which describes a number of 300 French national patient organisations, the INSERM-based working team followed the links between these to get access to European based organisations. 65 European patient organisations were then identified. The presentation of their main characteristics, missions, aims and activities can be now found on the CIPAST website. The institutions were selected according two criteria: their interest for research and their interest for the scientific and medical information on the diseases they are focused on. The survey also provided information about different material produced and referred to actions undertaken by these organisations; as for example: the trans-European surveys they carry out, the position papers, the specific modalities of participation with regards to European authorities, working groups, or European research projects. The outcome of this action provided a specific compatible database with the main CIPAST database.

Setting up a network of National Contact Points

In terms of networking, a major achievement was the constitution of an active network of “National Contact Points” (NPC). Coordinated by the unit Science-Society Interface of the University of Lausanne, this network was structured drawing on contacts made through the CIPAST Dresden and Procida training workshops. The roles and objectives of the NPC have been defined with the aim to be national relays to CIPAST experts in order to support the dissemination and the implementation of the CIPAST Training Package. They will also contribute to serve as national information sources to enrich and expand the database as well as the website.

Besides the members of the CIPAST consortium, the network of the NCP has added up by April 2008 and until now the following institutions: Belgium (University of Liege); Estonia (Institute of Baltic Studies); Hungary (Budapest University of Technology and Economics); Romania (National Institute for R&D in Informatics); Slovakia (Slovak Academy of Sciences); Spain (Centre for Energy and Environmental Research); Turkey (Middle East Technical University). Actors from Austria, Greece, Ireland, Norway, Portugal and South Korea are being presently contacted to team up. All the actors that we proposed to be a

CIPAST NPC have so far confirmed their willingness to assume this role, even though no funding was initially foreseen.

Creating a pool of experts in citizen participation in science and technology

During the last year of the project, we created a pool of experts. After a large consultation based on a questionnaire sent to CIPAST database contact persons, 100 experienced persons agreed to appear in the list as experts and for each of them was mentioned their specific field of expertise and activity. Science-Society Interface at University of Lausanne incorporated that list of experts into the CIPAST database web interface, to make it publicly available. An abstract was also included in the CIPAST Training Package under the name of “CIPAST Pool of Experts “

3 Stimulating the exchange of information and experience within this network

By setting up this network, CIPAST gave the opportunity to stimulate reciprocal among exchanges between the various groups of actors. The CIPAST Steering Committees contributed mainly to share expertise and good practices among the participating members. In order to achieve the aims and overall objectives, the CIPAST project implemented four tools as key instruments to develop networking, communication and dissemination: **a database, a website, the newsletters and discussion groups.**

Website, newsletter and discussion groups were launched during the first year of the project, and have been maintained and enriched throughout the project’s following periods, under co-ordination of **Bonn Science Shop, Science Society Interface, University de Lausanne** was responsible for the development of the database and for the coordination of networking, communication, dissemination activities, which have been permanently carried out by the whole consortium.

3.1 The CIPAST database: the heart of the networking activities

The CIPAST database gives access openly to some lists through the CIPAST website by **identifying reference persons, institutions and experts** that should clearly contribute to promote the development of participatory procedures in science and technology in different countries.

The cipast database also gives an overview of past or ongoing participatory processes. In addition, it provides statistics on the kind of actors, their nationalities including as well the thematic fields represented. Such lists can be downloaded in Excel and PDF formats.

Science-Society Interface at University of Lausanne ensures the management of the database, its enrichment and the updating. Persons or institutions who are interested to and be listed in the database - either as actor or with a process - are kindly asked to fill in the database registration forms on the CIPAST website.

To give a rough estimate, by April 2008, the database contained a figure of the order of 3175 actors from **2373** institutions coming from 66 countries (CIPAST e-mailing list), a list of 386

reference institutions (key institutions in the field of participation) of 26 countries, a reference list of 100 experts, and a list of participatory processes with 177 cases from 24 countries.

The CIPAST database accomplished successfully two main objectives.

On the one hand, the database of contact persons served to **networking and communication activities** by enabling the dissemination of newsletters, as well as management of both training workshops (registrations, dissemination of information, lists of participants, etc.) Additionally, it served to communicate external announcements on relevant events organized by network partners. This contributed significantly to the establishment of the CIPAST platform, as a reference source of information regarding citizen participation in Europe.

On the other hand, the database served to **foster the dissemination of good practices by offering a pool of reference institutions and experts** who can be contacted for advices, and **by presenting a detailed overview of past or ongoing participatory processes**, in Europe, and to some extent, overseas.

For instance, the database contributed to design the special issue of the CIPAST Newsletter on **Nanotechnologies**, providing information about 60 participatory processes related to this thematic.

The launch of the web interface in July 2007, allowed making the core part of the database available to a wider public and giving enhanced visibility to several EC projects, connected to citizen participation.

3.2 The CIPAST website: the main tool for communicating with a broader audience

The CIPAST website is main tool of the project to communicate with a broader audience. Under the coordination of the Bonn Science Shop, the website developed by the members of the consortium during the period time of the project, has been on line and accessible since October 2005. It is planned from today to be maintained after the end of the project, in March 2008.

Aside from giving a complete description of the CIPAST project and information about partners, the website served to promote various actions and initiatives. Specifically, it made available all the 10 published newsletters, provided a linkage to the CIPAST database giving access to the different reference lists, and offered all relevant information about the two CIPAST training workshops. In the context of the two training workshops, it served to manage the on-line registrations, to provide the preparatory documents for the case studies and to report the various outputs.

In a second section, the website provides basic resources on participatory methodologies, and access to the database including the newsletters. In the “Forum”, visitors can find a common space for sharing news and interacting with CIPAST consortium. Additionally, it gives links to other websites related to participatory procedures, as well as press releases and extra material.

Since its launch, the website frequentation constantly increased. Starting at the level of **206** in January 2006, the number of page views per month increased to an average of **20 000** in 2007 - 2008, with a maximum of **38.612** in July 2007.

The number of sessions per day constantly increasing doubled its initial mark and passed from **78** at the launch of the website to **160** at the end of the project in March 2008.

3.3 The CIPAST quarterly newsletters: a key information tool

One of the key components of the dissemination activities is the electronic newsletter on participatory procedures in Europe.

The newsletters provided the reader with detailed information on ongoing participatory projects and activities by giving short news about upcoming events in Europe and full reports on the outputs regarding the CIPAST training workshops. Bonn Science Shop edited and published **ten issues** between October 2005 and April 2008.

In March 2008, a special issue of the CIPAST newsletter on “Nanotechnology and Society” was published. It was the result of collecting many contributions by making a call through the CIPAST database contact list. The “Nano issue” gave a general overview based on the analysis of 60 participatory processes in nanotechnology governance. In most countries, they were developed as a result of political initiatives, namely in the European Union and in the United States. The gathering of this information, even if not exhaustive, provides a significant material to put these experiences into perspective and to open up debates or discussion on the roles of public participation in different national and regional political contexts.

3.4 The CIPAST discussion groups: exchanging ideas, news and experiences

The “CIPAST News and Discussion Group” was launched during the first year of activity, with the objective to keep up participants informed about the developments related to participative activities in the context of science and technology. Another aim was to build partnerships. Managed by the Bonn Science Shop, the discussion group worked on the basis of an open and free Internet mailing list.

The group mailing list helped as well to disseminate newsletters, announcements of training programmes and training tools, including other relevant initiatives undertaken by partner institutions. In spite of our efforts to encourage debates and exchanges of experience, the activity in this discussion group has been rather low.

4 Fostering the transfer of expertise through training programmes and a re-usable training toolkit.

In recent years, many experiences of public participation in science and technology have taken place in European countries. A large variety of methods have been implemented, ranging from focus groups, stakeholder roundtables to scenario workshops, citizen juries, and consensus conferences.

The successful implementation of such procedures at local, national and cross-national levels raises specific challenges that are to be tackled with a maximum of professionalism. A specific field of competence has to emerge.

In order to foster that capacity-building through organisational learning, dissemination of good practices, as well as critical self-reflection on participatory procedures, **CIPAST**

- organised, under the supervision of INRA, two important international training workshops, in Summer 2006 and 2007,
- elaborated a transferable training material based on a groundbreaking case studies methodology, relying on the experience of these two workshops

In both cases, the target audience included (potential) organisers of training programs as well as (potential) users of participatory procedures such as decision-makers belonging to political sphere, research sectors, non-profit organisations and industry. A special effort was made to identify workshop participants in the new member states of the E.U.

4.1 The Dresden training workshop

The first CIPAST international training workshop “How to design and organise public deliberation” was held in the Deutsches Hygiene-Museum in Dresden, Germany from June 26th to 28th 2006. The workshop was designed for people who expressed a strong interest in public participation in science and technology, who already organized participatory exercises or were willing to do so, or who simply wished to learn more about public participation.

After information and registration actions, 60 participants, coming from 23 countries, attended the workshop, among them 10 from Eastern Europe and also some representatives, from non-European countries, such as Australia, USA, Turkey, India and Palestine. The Deutsches Hygiene-Museum was responsible of the whole organization.

The programme was a combination of:

- general presentations delivered during plenary sessions, and addressing the main guidelines for implementing participatory procedures (basic principles, how to plan, how to achieve impact, how to evaluate be,...)
- “Poster sessions” and “surgery sessions” addressing the different methodologies through non-formal discussions with experts.
- Evening lectures and roundtables.

The workshop provided the participants with a good overview on participatory methods¹.

The Dresden workshop was a precious opportunity to expand the existing Cipast network, especially thanks to the contribution of the participants coming from countries not represented in the CIPAST consortium, specifically from new member States. Some of them proposed to become active corresponding members after the workshop. It was noticeable that Universities and Science Museums were well represented in comparison with NGO’s and governmental agencies which were under-represented.

¹ The presentations of the CIPAST Dresden workshop can be downloaded from www.cipast.org/cipast.php?section=41

4.2 From Dresden to Procida: redefining the case study methodology

Lessons learnt from the Dresden workshop can be summed up in three main aspects:

Firstly, the need to address more clearly and more formally the problems brought by the participants themselves, by giving practical answers to the questions the practitioners usually face when implementing participatory exercises. In order to achieve this objective, three new tools were developed:

- external case studies proposed by participants and elaborated according to the CIPAST methodology, with the help of the CIPAST members.
- Poster sessions with contributions from participants.
- An “Open Space” session, where participants have the possibility to debate on problems of their choices.

Secondly, the need for more active and systematic involvement of participants during the training itself.

To respond to this requirement, it was decided to structure the training methodology so as to present the case studies as active problem solving exercises.

Finally, the need to attract and get involved more actively policy makers, private sectors and NGOs representatives.

The new case studies training methodology

One of the points from the start of the CIPAST project was the fact that past or ongoing participatory experiences showed a large variety in types, addressing various categories of topics, implemented in diverse contexts. Each participatory procedure and every ‘level of decision-making’ implied different requirements and conditions for public participation and influenced the implementation of participatory procedures differently, including the aims (rationale, objectives, goals) of the exercise, the choice of methods and the appropriate way for participation, the types of participants suitable for involvement, the design of organisational structures and budget required, the type of outcomes realistically to be achieved as well as its evaluation.

Accordingly, we reconsidered the content of the Dresden case study methodology and set it up at the core of the Procida training programme **considering it as a problem-solving exercise, in which concrete solutions are proposed to face concrete situations.** Before submitting this new proposal to an international audience, the model was tested successfully with students in London (Westminster University) and in Paris (Sciences Po and EHESS).

The aim is to get participants actively involved in the learning process and become aware of some of the difficulties of designing and implementing a public participation in a practical way. The moderator presents a real-life-based problematic situation to be solved, for which no solution is given *a priori*. The participants work in small groups of 4 or 5 persons with his assistance of a moderator. The case leaders propose a set of tasks to be performed by each group, using the support materials and creating the conditions for a rich interaction on each case. The group proposes a solution based upon the analysis of specific aims and conditions; knowledge on participatory methods and tools is necessary.

The participants of the workshop has to get the support material for each case study provided, well in advance

During Procida workshop, support material included:

- a brief document presenting in a predefined way the overall context of the issue,
- a general picture of the concerned actors;
- a set of annexes with useful resources to prepare the case and information on how the real demand was issued;
- a synthesis of how the situation was envisaged by the CIPAST experts.

The tasks to be performed by the different small groups could eventually include activities such as:

- Reframing the issue from the large contextualisation given by the exercise moderator, to a more specific one;
- Selecting and evaluating the main concerned actors and their positions;
- Selecting the procedure to be used and justifying the choice;
- Preparing the press release announcing the participatory exercise, etc...

After that group session, **the real-case solution could be presented** and compared with the solutions proposed by the groups.

4.3 The Procida training workshop

The second CIPAST international training workshop “How to design and organise public deliberation” **was held in Procida, Italy, from 18th June to June 21st 2007, one year after the Dresden workshop.** More than 80 participants from 20 countries enjoyed the Mediterranean atmosphere of the island of Procida in the Gulf of Naples. The outstanding organisation by the host Città della Scienza allowed a fruitful exchange of experience and expertise and offered much scope for establishing contacts or consolidating networking.

Taking into account the feedback from Dresden, the workshop in Procida allocated more time for training through participatory exercises and allowed more interaction between participants.

Participants were invited to contribute to Procida workshop by either proposing a poster or a case study. A first announcement of Procida workshop and a call for contribution in the 5th CIPAST newsletter in December 2006 led to 26 proposals of case studies and 20 posters coming from 16 different countries. Many different participative methods and scientific fields were represented. Among the 26 proposals for case studies, 10 were selected to be prepared as problem solving exercises considering different criteria such as: country of origin, type of institution and type of participatory initiative.

Out of these 10 potential case studies, 4 were dropped out during the process due to lack of resources on the side of the proponents. Many of the other case studies were prepared as posters and presented during the poster session.²

The workshop programme was structured around two kinds of case studies:

- those aiming at designing a participatory process in a specific context with activities such as : framing the issue, identifying the actors, choosing a methodology and implementing the process (GM vine, Nanodialogue, Acceptris, Doing Dialogue, Nuclear Waste Management);
- those aiming at learning more in depth about one specific methodology (Ocean Rise, ECC, Fuel Cell City, PRISE).

Each participant had the possibility to work on at least two such studies: one proposed by the CIPAST members or one prepared by the CIPAST members on the basis of the results of the call for proposals.

The first day programme offered an introduction to citizen participation:

- “What is citizen participation?” and the Metaplan exercise
- “The basic principles of participation and how to manage them”
- Two methodology poster sessions
- The interactive training session on: “Planning citizen participation” including a group exercise on how to select an issue and a method; and “How to achieve impact?”

During the second day, CIPAST project partners offered three case studies:

- **“Ocean Rise”** : on how to design a scenario workshop on local management of ocean rises and flooding for local actors, presented by the Danish Board of Technology.
- **“NanoDialogue”** : on how to design a participative process for a cross-national consortium of science centres and science museums on emerging nanotechnologies at the European level, presented by the Centre for the Study of Democracy, University of Westminster.
- **“GM Vine”** tackled the question of how to design a participatory process for a research institute on the GM controversy, presented by INRA.

A film and a debate about the “nano-conference of citizens” organised by the Région Ile de France, France, were also presented during the evening session.

The third day of training was devoted to three parallel sessions of six “external” case studies resulting from the call for proposals:

- **“AcceptRis”**: on how to design a participatory process before implementing an emerging technology (Carbon Capture and Storage), presented by INERIS, the French National Institute of Industrial Environment and Risks.

² The presentations of the CIPAST Procida workshop can be downloaded from <http://www.cipast.org/cipast.php?section=4022>

- **“Doing Dialogue”**: on how to design a participative process involving young public, presented by a consortium of UK science centres; **European Citizens’ Consultation (ECC)** on the challenges of a cross border public participatory process, presented by IFOK Germany.
- **“Fuel Cell City”**: on how to design a participatory scenario process on the municipal use of fuel cell technology in a medium sized city, presented by the Inter-University Research Centre for Technology, Work and Culture (IFZ) in Graz, Austria.
- **“PRISE”**: on how to get lay peoples’ opinion in a case that involves complex technologies and political and ethical dilemmas, presented by the Norwegian Board of Technology;
- **“Nuclear Waste Management”** dealing with citizens’ engagement in designing future scenarios for nuclear waste management, presented by the National Radioactive Waste Management Agency of France (ANDRA).

An **“Open Space session”** took place during the afternoon and the evening of the third day. The CIPAST Open Space was the opportunity for participants to present and examine in detail specific experiences or transversal questions. It was a marketplace of inquiry, where participants offered their various topics of interest for discussion.

During the fourth day, presentations of the final block held at the *Città della Scienza* in Naples were dedicated to the question of evaluating a participatory procedure and to the assessment of the workshop as a finale conclusion.

A higher number of participants attended the Procida as compared to the Dresden workshop and only 10 people attended both. The main differences between both populations concerned: gender ratio, the nationality, and the proportion of participants from academic research and science culture. First, the proportion of women was much higher. The French participation was still reinforced, reflecting the strong network effects of CIPAST in France. The Dutch and the UK participation were much lower. Finally, the proportion of participants from academic research and science culture was lower, thanks to the relative increase of participants from NGO’s, government bodies, research centres and think tanks.

Procida workshop assessment

As for the Dresden workshop, our assessment drew on analysis of questionnaires that were filled in by the participants.

Overall, the most of the participants considered that the workshop fulfilled their expectations. The Open Space session was positively appreciated since it was handled quite professionally and gave time for participants to interact more freely.

Concerning the assessment of the case studies approach, the objective of participative learning was achieved in Procida. All the participants expressed their satisfaction, acknowledging the benefits of the practical orientation of the training and learning through interactions, and relying on rich and concrete material. This appreciation confirmed the remarkable mobilization of external participants who previously brought contributions with “external” case studies.

However, some technical points have been noted in order to improve the training methodology.

A crucial point appeared after Procida workshop: a bank of case-studies can be considered as a multidimensional resource.

It can be used, as it has been during CIPAST workshops and as it is presented in the toolkit described below, as a resource for training and capacity building.

But it can also be an effective instrument to compare and assess participatory procedures, and be as well a precious database for various researches in different fields, such as political cultures and the involvement of civil society in the contemporary democracies.

4.4 The CIPAST in Practice training toolkit: the last outcome of the project

The elaboration of the training toolkit

“CIPAST in Practice – Doing Public Participation” is the training tool kit relying on CIPAST 3 years training experience, and available on line and as a CD.

The support material for each of the selected case studies was defined, reviewed and edited between June 2007 and March 2008, right after the Procida training workshop. An editorial board of three experts from Bonn Science Shop, Rathenau Institute, and INRA was established to edit these elements, taking into account all the inputs from the observers and participants in the training workshops.

The final phase of the editing process was entirely coordinated by Bonn Science Shop. Design and layout of both the English and the French versions were subcontracted to the design office *Eichenartig* in Bonn. In April 2008, the CD was published with 300 copies. All content is available from the CIPAST website.

This product is not an “e-learning” tool; it provides material to be used by a trainer to design specific and adapted training sessions, possibly in different contexts and for different audiences, but always based on a case-study approach.

The contents of the training toolkit

Both the CIPAST in Practice CD and Website are structured in four complementary chapters: “introduction”, “design”, “practice” and “what else?”.

The different materials offered in each chapter can be downloaded, either as PowerPoint presentation or as Acrobat PDF. The PowerPoint presentations include all the additional notes made by the authors to be considered in the presentation.

- **The introductory chapter provides a general overview to the state-of-the-art in public participation in science and technology**, a presentation of the CIPAST platform, as well as guidelines on how to work with the training material, including an introduction to the case study methodology.

- **The second chapter, ‘Design’, offers important basic resources about designing participatory procedures.** The chapter is divided into six sections:
 - **“Workshop introduction”** provides elements to understand the context of citizen participation in science and technology.
 - **Section 2**, “some basic principles”, provides the main guidelines to deal with the empowerment of participants, the management of expectations, equity and fairness of deliberation
 - **Section 3**, “how to choose a method”, is the starting point for exploring a variety of participatory methods, giving some criteria and key parameters to choose the appropriate ones.
 - **Section 4** tackles the question on “how to achieve impact” when implementing citizen participation exercises.
 - The problems of “how to evaluate citizen participation”, and of why evaluating and how to measure effectiveness are addressed **in the fifth section.**

- **The third chapter ‘Practice’ contains the core of the training kit, offering a series of case-studies prepared for training workshop settings.**

Participants are put in the role of practitioners and are enabled to bring their experiences together in a learning situation. In small groups, they have to perform different tasks, which illustrate some of the difficulties of designing and implementing public participation in practice. The ‘users’ manual’ for each case study also describes how it can be applied in a learning situation and the way to work with case study ID card or working material. This training methodology is developed in the first section.

Each case study starts with a short description of the case, the training objectives, the proposed methodology and the previously required knowledge. Alongside clear guidelines on how to work with the case study including pieces of advice on when to use additional material can be found, as well as a workshop timetable.

- **The first case study, “Ocean Rise: How to design a scenario workshop on local management of ocean rises and flooding for local actors?”** guides participants step by step through the design of a scenario workshop on local management of ocean rise and flooding for local actors. It relies on a 2004-project implemented by the Danish Board of Technology.

- **The second case study, “Doing Dialogue: designing a participatory process for a consortium of UK science centres aimed at young people aged between 14-19 years old to feed into a national public consultation”.** Addressing the ethical issues raised by new developments in biology and medicine, this case study is based on an ECSITE project which ran from 2005-2007, in partnership with Thinktank including sciences museums and centres (Birmingham Science Museum, Glasgow Science Centre, Centre for Life, Newcastle and Museum of Science and Industry, Manchester).

- **The third case study, “GM Vine: How to design a participatory process for a research institute on a controversial issue?”** is developed on the basis of an initiative of the French National Institute for Agronomic Research (INRA) on GM Vine Field Trials in 2001-2002.

- **The fourth case study, “Nuclear Waste: Citizens’ engagement in designing future scenarios for nuclear waste management in France”** relies on the demand of the French National Agency for Nuclear Waste Management (ANDRA) dealing with the current French studies and controversies about the conception of a deep geological repository for radioactive waste.

- **Finally, the fifth case study, “NanoDialogue: How to design a participatory process for a consortium of science centres and science museums on an emerging issue at the European level”** is developed on the basis of the NanoDialogue initiative, coordinated by the Città della Scienza, which was held from 2005 to 2007, with EC support.

The fourth and last chapter of the training package, ‘What else?’ makes available further resources such as experts, literature and additional experiences.

5 CIPAST after CIPAST

During the three last meetings of the Steering Committee, several discussions took place concerning which would be the future of the CIPAST platform after the 3 years of existence as an EU FP6-funded project. The stake was creating an organization, conceived as an international network or platform **to ensure the maintaining of the networking activities and the realisation of regular training workshops on citizen participation using the training toolkit.** In the last SC meeting, the creation of the “CIPAST European platform for training, research and debate” was decided. As a first step, this organization would be of federal structure and having as members the former CIPAST partners. Each member will raise funds separately for specific projects, such as database, website, newsletter, and training sessions. One next immediate objective would be to organize a training session in September 2009.

Section 2 – Conclusions and Recommendations

In this second and final section, we draw on some lessons learnt throughout our work programme to put forward a corpus of recommendations meant for specific groups of decision-makers and stakeholders.

Our recommendations are mainly addressed to the DG Research of the European Commission. Yet, they are no less relevant to other European institutional players concerned by the implementation of participatory procedures, willing to support initiatives that will take over the follow-up of actions undertaken by CIPAST. More generally, the question we address here deals with the way public authorities can stimulate the development of a European culture of participation. Thus, these conclusions and recommendations should be considered, not only as a conclusive instance of the project, but also as a call for new initiatives.

Actions to be supported could be summarised in four main recommendations:

- Activating and expanding the existing networks of actors
- Furthering training programmes using the case study methodology
- Supporting (action-)research initiatives on European cultures of participation
- Creating a specific observation device on participation in the field of nanotechnologies

All these recommendations are in close interaction with one another and aim at overcoming the pitfalls and lacunae in the current construction of a European culture of engagement of society-at-large in socio-technical issues. Notwithstanding, each one entails specific challenges to be tackled.

Recommendation 1:

To foster and support the existing dynamics of European cooperation and networking between all different actors involved in participation

Cipast experience demonstrates that substantial expectations exist through Europe regarding dissemination of good practices in the field of participation. These expectations emerge in various contexts and for diverse reasons, but they globally create favourable conditions for supporting the development of active networks.

Many types of initiatives should be taken to reinforce these dynamics, but considering here the question of the types of actors and of the quality of networks, we suggest the following directions for action:

- **To consider “cross-fertilization” as a top priority.**
Most of involved families of actors already have their own professional networks (TA agencies, academic groups, science museums ...). But there is a specific efficiency in exchanging the different approaches and experiences by gathering together the various

families. Promoting a culture of participation needs actors who have a high capacity to listen and to take into account the interests and points of view of other stakeholders. The experience of workshops organized by the CIPAST shows that this type of exchange offers good conditions to enrich practical approaches of participation, by considering the complexity of situations.

– **To prioritize initiatives involving new member States.**

Through CIPAST activity, we had clearly observed a high level of expectation for capacity building coming from various institutions of new member states, including science academies, universities, local communities...

The network of “National Contact Points” (NCP) does exist, and should be an effective instrument of dissemination. It can especially put in touch various experts and actors, in order to facilitate European integration and trans-national cooperation at different levels

– **To encourage involvement of scientific research organizations.**

In the research organizations, the willingness to include civil society participation as an element of strategic decision-making is still globally slight and unequally shared. Nevertheless, the example of patient associations clearly demonstrates the efficiency of such processes and the benefits these organizations can derive from it.

Also, in the case of emergent technologies like nanotechnologies, the necessity to create the conditions of open debates involving civil society as a partner of strategic decisions is becoming more and more obvious. Our suggestion is to emphasize this dimension of collaboration through relevant initiatives targeting scientific spheres.

– **To make specific efforts to bring political and industrial decision-makers to consider participation as a positive enrichment of decision processes.**

We are in a situation in which many decision-makers recognize the limits and the risks of classical top-down models of decision, but are still reluctant to introduce participation as a possibility to improve the quality of decisions. We have observed until so far, that a practical approach based on concrete case-studies can be used as a precious and valuable support to overcome these types of hesitations.

Recommendation 2:

To support further organisation of training sessions on citizen participation in science and technology based on case-studies.

Relying on a pragmatic experience of capacity-building, CIPAST achieved to provide two different and complementary elements: firstly, a model of training workshop and secondly,, public training tools which can be used and re-assembled by potential users.

Our experience confirmed that workshops offer an original forum without any equivalence, namely because they allow gathering academic scholars, practitioners, and decision makers in an active learning process based on real life experiences.

According to our experience, it is necessary to involve participants actively in teaching and learning processes. To achieve this aim, the development of case studies as “problem solving exercises” is the cornerstone of the training programme.

Active participation was further enhanced through various complementary ways such as:

- Call for (external) case studies proposed by participants and developed according to the CIPAST methodology.
- Poster sessions with contributions from the participants, including an “open space” session, where participants have the possibility to debate on problems of their choices.
- Training participation using real and carefully documented case studies proved to be very productive for the newcomers.

We recommend strongly taking stock of the CIPAST experience and methodology in order to further up the organisation of training workshops on citizen participation in science and technology.

Recommendation 3:

To support an interdisciplinary group of researchers and practitioners to both develop a case studies database and investigate local cultures of participation.

Considered above as an instrument to feed training sessions and capacity building activities, a base of case-studies can also provide a rich material for research.

Recent research in Science and Technology Studies (STS) has shown that, while citizen participation has been the focus of much conceptualisation, experimentation and evaluation, few efforts have been made to understand how participatory processes are developing across policy-for-real decision contexts.

Moreover, participatory initiatives tend to be analyzed as if they have existed in a social and political vacuum. Conversely, our experience has shown that public engagement is always framed by local, political dynamics and contexts. Patterns of participatory practices are thus co-determined by contextual influences. Consequently there is a need for producing further methodological development and systematic evaluation combining dual dynamics between processes and contexts.

The creation and development of a large bank of case-studies based on real experiences, implemented in various contexts, could be used as an opportunity to conduct research on actors’ visions and need. It could allow investigating on the different ways national and political cultures should relate to participation in order to master and overcome the obstacles that could eventually arise.

Decoding and mapping public ways of knowing, learning and thinking about socio-technical issues in the different political contexts represents a major stake to shape a common European culture of citizen engagement linked to the governance of science and technology.

The availability of a constantly evolving and updated database, providing structured case studies for training and policy analysis, seems to be the key element to achieve this aim.

Hence, we recommend supporting and setting up an interdisciplinary research group. Such a group would have three core objectives:

- firstly : to enrich and diversify the existing case studies database
- Secondly: to contribute to training programmes.
- And finally: to perform research on local participatory cultures and suggest adaptations of procedures to local contexts.

Such endeavour should benefit from a close collaboration between both practitioners of participation and academics.

Recommendation 4:

To document the various experiences of involvement of civil society in the field of nanotechnologies.

Upstream citizen involvement in science and technology (i.e. participation of civil society before significant development and technological dissemination has taken place and before firm public attitudes about an issue have been established) has become, along with the unfolding of nanotechnology, a master narrative of current public policies in many countries.

The precedents of asbestos and biotechnologies have probably played a crucial role in that dynamics. It looks now necessary to perform a broad and comprehensive assessment of the diverse participatory processes that raise the question of the existing and potential impacts of nanotechnology as an emergent technology.

As documented in the CIPAST database and further discussed in the special nano issue of the CIPAST newsletter, a very large number of participatory initiatives have been set up in different national and political contexts involving a great diversity of actors and audiences.

In order to enact national participatory initiatives, public authorities have turned to many different kinds of expertise such as: universities and academic institutions specialized in social and political science, R&D agencies, science communication companies, NGOs, as well as science centres and museums. Yet, STS scholars have shown that, as far as co-construction of innovations is concerned, upstream public engagement is performing poorly

It proves then necessary to support a widening of the discussion that highlights public's opinion about nanotechnology. Hence, we recommend focusing on the diversity of ongoing initiatives, and drawing on the experience of the multiple professional actors who implement them across European national contexts. This would contribute to better understand the tensions and drawbacks emerging within the overall governance strategy and the constraints placed upon the effectiveness of upstream public engagement related to nanotechnology.

To conclude

Networking and capacity building for a professional implementation of citizen participation across Europe proved to have valuable functions as a means to further the cause of European integration. Hence, the researchers and practitioners who participated in the CIPAST project are looking forward to contribute to new initiatives.

However, we consider that such initiatives should rely on the many previous and ongoing ones. By outlining these findings and putting forward these series of recommendations, we hope to trigger off new calls for proposals. We also expect to encourage political and industrial decision-makers, NGOs, social scientists and practitioners, to reflect and act in regard to the ongoing implementation of public participation vis-à-vis the construction of a European identity.

The full text with findings and recommendations will be available on the CIPAST website soon and we invite you to discuss it with us on the CIPAST discussion list cipast@yahoogroups.com