

Radioactive Waste Management

ISBN 92-64-02087-X

# **Stakeholder Involvement Techniques**

## **Short Guide and Annotated Bibliography**

© OECD 2004  
NEA No. 5418

NUCLEAR ENERGY AGENCY  
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

## **ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

Pursuant to Article 1 of the Convention signed in Paris on 14<sup>th</sup> December 1960, and which came into force on 30<sup>th</sup> September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became members subsequently through accession at the dates indicated hereafter: Japan (28<sup>th</sup> April 1964), Finland (28<sup>th</sup> January 1969), Australia (7<sup>th</sup> June 1971), New Zealand (29<sup>th</sup> May 1973), Mexico (18<sup>th</sup> May 1994), the Czech Republic (21<sup>st</sup> December 1995), Hungary (7<sup>th</sup> May 1996), Poland (22<sup>nd</sup> November 1996); Korea (12<sup>th</sup> December 1996) and the Slovak Republic (14<sup>th</sup> December 2000). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

## **NUCLEAR ENERGY AGENCY**

The OECD Nuclear Energy Agency (NEA) was established on 1<sup>st</sup> February 1958 under the name of the OEEC European Nuclear Energy Agency. It received its present designation on 20<sup>th</sup> April 1972, when Japan became its first non-European full member. NEA membership today consists of 28 OECD member countries: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, Norway, Portugal, the Republic of Korea, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities also takes part in the work of the Agency.

The mission of the NEA is:

- to assist its member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes, as well as
- to provide authoritative assessments and to forge common understandings on key issues as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development.

Specific areas of competence of the NEA include safety and regulation of nuclear activities, radioactive waste management, radiological protection, nuclear science, economic and technical analyses of the nuclear fuel cycle, nuclear law and liability, and public information. The NEA Data Bank provides nuclear data and computer program services for participating countries.

In these and related tasks, the NEA works in close collaboration with the International Atomic Energy Agency in Vienna, with which it has a Co-operation Agreement, as well as with other international organisations in the nuclear field.

### **© OECD 2004**

Permission to reproduce a portion of this work for non-commercial purposes or classroom use should be obtained through the Centre français d'exploitation du droit de copie (CCF), 20, rue des Grands-Augustins, 75006 Paris, France, Tel. +33-(0) 1 44 07 47 70, Fax +33 (0) 1 46 34 67 19, for every country except the United States. In the United States permission should be obtained through the Copyright Clearance Center, Customer Service, +1 (508) 750-8400, 222 Rosewood Drive, Danvers, MA 01923, USA, or CCC Online: <http://www.copyright.com/>. All other applications for permission to reproduce or translate all or part of this book should be made to OECD Publications, 2, rue André-Pascal, 75775 Paris Cedex 16, France.

## FOREWORD

The Forum on Stakeholder Confidence (FSC) was created under a mandate from the Radioactive Waste Management Committee (RWMC) of the OECD Nuclear Energy Agency (NEA) to facilitate the sharing of international experience in addressing the societal dimension of radioactive waste management. It explores means of ensuring an effective dialogue amongst all stakeholders, and considers ways to strengthen confidence in decision-making processes. FSC documents may be obtained online at [www.nea.fr/html/rwm/fsc.html](http://www.nea.fr/html/rwm/fsc.html).

OECD countries are increasingly implementing forms of participatory democracy that will require new or enhanced forms of dialogue amongst a broader range of concerned parties. The 4<sup>th</sup> regular FSC meeting held in Paris in May 2003 included a topical session on Stakeholder involvement tools: Criteria for choice and evaluation.

The internal Minutes of the 4<sup>th</sup> meeting noted, in response to the discussions initiated by this topical session: “Given that FSC members have one specific issue – radioactive waste management (RWM) – to deal with, a continuing relationship and dialogue among stakeholders seems important. What is desired is a well-informed citizen, because this is – in the end – an issue of democracy. Perhaps we have suffered in our field from a lack of recognition that RWM, like others, is an issue of democracy as well as a technical one.”

At the close of the topical session, it was agreed that the FSC would prepare a short guide on stakeholder involvement techniques. The present guide approaches the topic from the point of view of radioactive waste management. However, because dialogue and deliberation techniques can be used in many fields, it will be of interest to a wide readership. It includes an annotated bibliography pointing to easily accessible handbooks and other resources.

### *Acknowledgements*

This short guide was prepared by Claire Mays, a consultant to the NEA Secretariat. Useful documents and input were provided in particular by Elizabeth Atherton of Nirex, and by Claudio Pescatore of the Secretariat. FSC members provided review comments at their 5<sup>th</sup> regular meeting (June 2004).

## TABLE OF CONTENTS

Foreword .....	3
Executive summary .....	7
1. Introduction .....	13
2. Levels of stakeholder participation or involvement .....	17
3. Potential effects of stakeholder involvement programmes .....	21
4. Setting criteria for technique selection and evaluation .....	23
5. Choosing a technique .....	25
6. Looking towards implementation.....	27
7. What techniques are available for higher level involvement?.....	29
8. Annotated bibliography.....	35
8.1 Publications by the OECD Nuclear Energy Agency Forum on Stakeholder Confidence .....	36
8.2 Guidance from FSC members and research programmes in which they have participated.....	39
8.3 Further handbooks and manuals available on the Internet .....	41
8.4 Scholarly and technical publications.....	47
8.5 Documents of interest – other sources cited in this short guide....	49



## EXECUTIVE SUMMARY

Radioactive waste management (RWM) issues are embedded in broader societal issues such as environment, risk, energy policy and sustainability. In all these fields there is an increasing demand for *stakeholder involvement*.

The FSC considers that stakeholder involvement is an integral part of a stepwise process of decision making. At different phases, involvement may take the form of sharing information, consulting, dialoguing, or deliberating on decisions. It should be seen always as a meaningful part of formulating and implementing good policy. Stakeholder involvement techniques should not be viewed as convenient tools for “public relations”, image-building, or winning acceptance for a decision taken behind closed doors.

In certain contexts the times and the means for involvement are specified by law, while in other contexts, a specific player may have to create the opportunity and the means for involving other stakeholders.

Practitioners and scholars are developing, applying, and evaluating various techniques for stakeholder involvement. A vast range of approaches exists, as well as a great number of publications describing them. There is a need for a short guide to let non-specialists:

- form an idea of what is involved in choosing a technique; and
- find their way to pertinent documents.

The present publication responds to those needs, and is intended for a general readership of persons considering stakeholder involvement.

A special effort was made to include the most easily available resource documents in the annotated bibliography. Wherever possible, an Internet link is provided.

## **Levels of stakeholder participation or involvement**

Not all participation is alike. Different levels of stakeholder participation or involvement are offered by different techniques. One approach may simply transmit information to a passive stakeholder audience. At the other end of the scale, a technique may significantly empower stakeholders within the decision-making process. This short guide includes a table describing how to choose a given level of involvement according to the situation or to the objectives sought.

Planners should be aware that stakeholders may desire, expect or be entitled to a particular level of involvement. Preliminary discussion, contact with or observation of target stakeholder groups, as well as review of statutory requirements, will help determine the appropriate level. How much involvement the organisation can – or wishes to – offer must be clearly defined. This should then be clearly communicated to potential stakeholder participants, at the outset of the programme.

## **Potential effects of stakeholder involvement programmes**

Bottom-up, inclusive approaches for information gathering and deliberation are likely to enhance the credibility of the decision-making processes. This is not the only type of positive effect that may be expected from a well-run stakeholder involvement initiative. Three classes of effects may result from the application of consultation and deliberation techniques. *Substantive* effects include: better, more acceptable choices from the environmental, economic, and technical points of view. *Procedural* effects include: Better use of information; better conflict management; increased legitimacy of the decision making process. *Contextual* effects include: Better information to stakeholders and/or the public; improvement of strategic capacity of decision makers; reinforcement of democratic practices; increased confidence in institutional players. These potential positive effects of stakeholder participation may also be quoted as justifications for involving stakeholders in policy decisions.

## **Setting criteria for technique selection and evaluation**

The technique that will be suitable for a particular situation will depend on the stakeholders to be engaged, and the aims and objectives of the consultation. Those considering stakeholder involvement will need to consider these aspects of the involvement and decide on the most appropriate technique to use. To



achieve this, the organisation must develop *selection criteria*. The same criteria may serve later to evaluate the involvement programme.

As mentioned above, the appropriate level of involvement is a fundamental criterion. It should be carefully set and communicated to potential participants.

Some handbooks listed in the annotated bibliography of this short guide may be particularly helpful in setting other types of criteria. A list should be made of desired effects and goals, as well as constraints. These will all form criteria for choosing a technique. Members of the organisation who will implement stakeholder involvement should discuss this list and the ranking of criteria. The criteria should be ranked by order of importance.

The Forum on Stakeholder Confidence observes that involvement techniques are not best used for an isolated, “one-off” or “add-on” initiative. In fact, appropriate involvement of relevant stakeholders is advisable throughout a management or decision-making process. Specific techniques will give best results, for participants and for the institutions that organise dialogue, if they support a logical step in well-defined process of management or of decision. This overall process justifies the use of a specific instrument at a given time, in order to obtain a needed output. Within this process, different issues or problems take centre stage at different times. They will frame the choice of techniques, in order to elucidate, for example: national or local considerations, or predominantly societal or technical choices.

### **Choosing a technique**

Most publications state that the actual choice of a technique is an art, and not a science. Stakeholder involvement techniques usually can be applied to a broad range of issues. As discussed above, the criteria developed in response to a specific context, constraints, desired goals and effects, will certainly differ between organisations.

For these reasons, no “one size fits all” list of criteria can be offered a priori. A definitive matrix matching techniques to criteria therefore does not exist. However, the handbooks and manuals do describe different techniques in terms of *generic* criteria (such as level of involvement, scale of consultation – intensive vs. extensive, representative character, inclusiveness, deliberative qualities...).

Experience shows that the success of a particular technique will depend also on external factors: the phase of decision, the political and cultural context.

When the organisation's ranked list of criteria is settled (or when a preliminary list has been developed), the planner should review existing techniques to form an idea of which might fit best. This short guide highlights the most attractive manuals offering a "quick entry" or rapid review of involvement techniques. When a set of potentially suitable techniques has been identified, more detailed sources may be consulted.

It will be of great value for the planner to contact and discuss experience with persons who have conducted involvement initiatives. In some cases the planner will consult and/or retain the services of a professional to set up and conduct the initiative, but the planner should perform the preparatory steps to identify the right family of techniques before "buying".

### **Looking towards implementation**

In the publications presented in the annotated bibliography, implementation advice ranges from "best practice" tips to flow charts and worksheets that may be printed out. Decisions implied by actual implementation are beyond the scope of this short guide. However, comments may be made in regard to preparing and publicising programmes.

The organisational goal of *informing or educating* implies developing appropriate public information materials. Information materials will be useful only if they can be understood and interpreted by their intended audience. Preparing adequate information material, like preparing an adequate survey questionnaire, is a skilled professional task. Each should be adapted to the "starting position" of the stakeholder population. For both information material and survey questionnaire development, it can be beneficial to perform in-depth, reduced-scale preparatory studies exploring the starting positions or "mental models" of the various stakeholders including experts.

Higher levels of involvement usually imply that participants will have the opportunity to communicate their views and judgements in detail, as well as learn from other stakeholders. Still, the planner may find preparatory small-scale studies or consultations useful for e.g., scoping the issues or identifying target stakeholder groups.

Planners of stakeholder involvement in technical areas will probably benefit from advice on communicating about risks, translating complex information into a readily accessible form, and interacting with a range of stakeholders who may not have technical training. Finally, a planner may wish

to made a broad announcement of stakeholder initiatives, or publicise their outcomes using the mass media. Appropriate handbooks are cited.

### **What techniques are available for higher level involvement?**

This short guide lists commonly-cited techniques corresponding to the higher levels of stakeholder involvement (i.e., *discussing*, *engaging*, *partnering*). The annotated bibliography points to documents that list more techniques and advise on matching them to specific needs and goals. As well, handbooks for planning, implementing, and evaluating stakeholder involvement programmes are identified in the bibliography.



## 1. INTRODUCTION

Radioactive waste management (RWM) issues are embedded in broader societal issues such as environment, risk, energy policy and sustainability. In all these fields there is an increasing demand for *stakeholder involvement*. Managers in both the public and private sectors find that such involvement can improve the quality and the sustainability of policy decisions. Best practice in RWM has therefore shifted from the traditional “decide, announce and defend” model, for which the focus was almost exclusively on technical content, to one of “engage, interact and co-operate”, for which both technical content and quality of process are of comparable importance.<sup>1</sup> Time spent dialoguing, and in bringing stakeholder input into the organisation and into the waste management programme, is now seen to be time well spent.<sup>2</sup>

Together with openness, accountability, effectiveness and coherence, *participation* today is recognised as one of the five “principles of good governance”.<sup>3</sup>

The new trend is typified by e.g. Law No. 108-153 regarding nano-technology R&D, enacted by the U.S. Congress in 2003. That law states that societal concerns must be identified through “public input and outreach to be integrated (...) by the convening of regular and ongoing public discussions, through mechanisms such as citizens’ panels, consensus conferences, and educational events, as appropriate”.<sup>4</sup> Public information, consultation and/or participation in environmental or technological decision making – and RWM in

---

1. Kotra, J. [43].

2. At the 5<sup>th</sup> Regular Meeting of the FSC in June 2004, a topical session will address “Decision-making processes at the strategic choice stage: How different stakeholders are involved, and which values are taken into account”, including presentations from Canada, France, and the United Kingdom. The proceedings will be published and available online: [[www.nea.fr/html/rwm/fsc.html](http://www.nea.fr/html/rwm/fsc.html)]

3. European Commission [41] Good governance relies on “policies designed on the basis of reasonable decisions that are well communicated and discussed with the public” (OECD/NEA [29]).

4. Section 2 (10). Consult the text of the law online via: [<http://thomas.loc.gov/cgi-bin/bdquery/z?d108:SN00189:TOM:/bss/d108query.html>]

particular – moreover are required by a number of international treaties. These include the Joint Convention<sup>5</sup> and, in Europe, the Espoo<sup>6</sup> and Aarhus<sup>7</sup> Conventions.

The OECD/NEA Forum on Stakeholder Confidence (FSC) takes “stakeholder” as a convenient label for *any actor* – institution, group or individual – *with an interest or a role to play* in the societal decision-making process around RWM.

Different stakeholders have both different contributions and different consultation needs at each stage of the decision process. In RWM, a list of possible stakeholders<sup>8</sup> might include: The general public; demographic groups (like young people); residents, representatives or elected officials of local communities; national/regional government ministries/departments; regulators; national/local NGOs or CSOs,<sup>9</sup> local pressure groups; trade unions; the media; the scientific research community; implementing organisations; the nuclear industry; contractors; waste producers; international organisations.<sup>10</sup>

The FSC considers that stakeholder involvement is an integral part of a stepwise process of decision making [6]. At different phases, involvement may take the form of sharing information, consulting, dialoguing, or deliberating on decisions; it should be seen always as a meaningful part of formulating and implementing good policy. Specific involvement initiatives may be seen as part of an ongoing relationship among the different societal partners who are concerned by issues of e.g. radioactive waste management. Stakeholder

- 
5. *Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management*. Online: [<http://www.iaea.org/ns/rasanet/conventions/jointconven.htm>]
  6. United Nations Economic Commission for Europe (UNECE) *Convention on Environmental Impact Assessment in a Transboundary Context*. Online: [<http://www.unece.org/env/eia/welcome.html>]
  7. United Nations Economic Commission for Europe (UNECE) *Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters*. Online: [<http://www.unece.org/env/pp/>]
  8. An FSC working group discussed the identity of the various stakeholders in the RWM process: Webster, S. [49].
  9. NGOs or CSOs: non-governmental organisations or civil society organisations (the latter are also called “associations”, and range from neighbourhood organizations to professional organizations or academic societies).
  10. For example, European Union Member States have information obligations to the European Commission under the *Treaty establishing the European Atomic Energy Community (Article 37)*. Online: [<http://europa.eu.int/abc/obj/treaties/en/entoc38.htm>]

involvement techniques should not be viewed as convenient tools for “public relations”, image-building, or winning acceptance for a decision taken behind closed doors.

In certain contexts the times and the means for involvement are specified by law, while in other contexts, a specific player may have to create the opportunity and the means for involving other stakeholders.

Practitioners and scholars are developing, applying, and evaluating various techniques for stakeholder involvement. A vast range of approaches exists, as well as a great number of publications describing them. There is a need for a short guide to let non-specialists:

- form an idea of what is involved in choosing a technique; and
- find their way to pertinent documents.

This publication is intended for a general readership of persons considering stakeholder involvement. Because all participation is not equivalent, insight first is offered on the different levels of involvement. This short guide then lists the positive effects that may result from stakeholder involvement arrangements. It gives pointers for setting criteria that will frame first the choice of technique for a given situation, and then the evaluation of the involvement process. The actual implementation phase is beyond the scope of this study, but relevant documents and considerations are signalled. A list is provided of typical techniques for engaging stakeholders in deliberation (a higher level of involvement that corresponds to fully airing issues and viewpoints and exploring options). Finally, an annotated bibliography of easily accessible references will help the reader choose among the wealth of handbooks and scholarly references on planning, implementing and evaluating a tailor-made involvement programme.





## 2. LEVELS OF STAKEHOLDER PARTICIPATION OR INVOLVEMENT

Not all participation is alike. Different levels of stakeholder participation or involvement are offered by different techniques. One approach may simply transmit information to a passive stakeholder audience. At the other end of the scale, a technique may significantly empower stakeholders within the decision-making process.

Health Canada [42] has proposed a public involvement continuum. The different activities seen in Table 1 below may blend into each other; no strict line can be drawn between adjacent activities.

Table 1. A public involvement continuum<sup>11</sup>

Low level of public involvement or influence		Mid level	High level of public involvement or influence	
Inform, educate, share or disseminate information	Gather information, views	Discuss through two-way dialogue	Fully engage on complex issues	Partner in the implementation of solutions

Planners should be aware that stakeholders may desire, expect or be entitled to a particular level of involvement. Preliminary discussion, contact with or observation of target stakeholder groups, as well as review of statutory requirements, will help determine the appropriate level. How much involvement the organisation can – or wishes to – offer must be clearly defined. This should then be clearly communicated to potential stakeholder participants, at the outset of the programme. Box 1 below gives insight from Forum on Stakeholder Confidence experience.

---

11. Adapted from Health Canada [42].

### **Box 1. The need to clarify the level of stakeholder involvement**

Reports by FSC member organisations [8] confirm the need to clarify the level of involvement, and the degree of two-way communication that can be expected by participants:

- Consulting the public when the legal scope for them to influence the decision is small causes anger, so it is important to be clear on what issues reasonably can be influenced.
- The basis for the decision must be clearly understood.
- It is important to be clear about the information sought and the feedback to be provided by the decision maker.
- People want to see that they have influenced the process and have had a meaningful impact on the outcome.

In Table 2, guidance is offered on fitting the different levels of public involvement to the needs of the situation.

Table 2. **Guidance on choosing different levels of public involvement**<sup>12</sup>

<b>In what cases may it be appropriate to involve the public?</b>	In matters of health, safety, local impacts of RWM activities; development and implementation of legislation and regulations; development of policies, statutes and new programmes; preparation of business plan; issues with social, economic, cultural or ethical implications; sharing or disseminating information; resolving questions that revolve around conflicting values.
<b>Inform/educate when:</b>	Factual information is needed to describe a policy, programme or process; a decision has already been made (no decision is required); the public needs to know the results of a process; there is no opportunity to influence the final outcome; there is need for acceptance of a proposal before a decision may be made; an emergency or crisis requires immediate action; information is necessary to abate concerns or prepare for involvement; the issue is relatively simple.
<b>Gather information/views when:</b>	The purpose is primarily to listen and gather information; policy decisions are still being shaped and discretion is required; there may not be a firm commitment to do anything with the views collected – in this case, advise participants from the outset.
<b>Discuss or involve when:</b>	Two-way information exchange is needed; individuals and groups have an interest in the issue and will likely be affected by the outcome; there is an opportunity to influence the final outcome; organiser wishes to encourage discussion among and with stakeholders; input may shape policy directions and programme delivery.
<b>Engage when:</b>	It is necessary for stakeholders to talk to each other regarding complex, value-laden decisions; there is a capacity for stakeholders to shape policies that affect them; there is opportunity for shared agenda setting and open time frames for deliberation on issues; options generated together will be respected.
<b>Partner when:</b>	Institutions want to empower stakeholders to manage the process; stakeholders have accepted the challenge of developing solutions themselves; institutions are ready to assume the role of enabler; there is an agreement to implement solutions generated by stakeholders.

---

12. Adapted from Health Canada [42].



### 3. POTENTIAL EFFECTS OF STAKEHOLDER INVOLVEMENT PROGRAMMES

Bottom-up, inclusive approaches for information gathering and deliberation are likely to enhance the credibility of the decision-making processes. This is not the only type of effect that may be expected from a well-run stakeholder involvement initiative. Three classes of effects may result from the application of consultation and deliberation techniques. These are:

- *substantive* (concrete decision outcomes);
- *procedural* (modifications to the process of deciding); and
- *contextual* (“side” effects).

Table 3 lists the potential positive effects of stakeholder participation. These may also be quoted as justifications for involving stakeholders in policy decisions.

Table 3. **Potential positive effects of participatory approaches**<sup>13</sup>

<b>Category</b>	<b>Potential effects</b>
<b>Substantive effects</b>	<ul style="list-style-type: none"> <li>• More pertinent choices from the environmental point of view</li> <li>• More pertinent choices from the economic point of view</li> <li>• More pertinent choices from the technical point of view</li> <li>• More socially acceptable choices</li> </ul>
<b>Procedural effects</b>	<ul style="list-style-type: none"> <li>• Improvement of the quality of the informational basis of decision processes and better use of information</li> <li>• Better integration of the wider context that determines the range of choices for the decision</li> <li>• Opening up the domain of choices considered</li> <li>• More dynamic processes</li> <li>• Better conflict management</li> <li>• Increased legitimacy of the decision process</li> <li>• Improvement of the effectiveness of the process in terms of costs and time</li> <li>• Improvement of the power of influence of less organised interests</li> </ul>
<b>Contextual effects</b>	<ul style="list-style-type: none"> <li>• Better information to stakeholders and/or the public</li> <li>• Improvement of strategic capacity of decision makers</li> <li>• Changes in the perception and conceptualisation of the social context</li> <li>• Modification in traditional power relations and conflicts</li> <li>• Reinforcement of democratic practices and citizens' involvement in public domains</li> <li>• Increased confidence in institutional players</li> </ul>

---

13. Adapted from van den Hove, S. [48].

#### 4. SETTING CRITERIA FOR TECHNIQUE SELECTION AND EVALUATION

The decision to involve stakeholders may reflect different needs or goals, as suggested by Table 2 above. Different types of consultation or deliberation processes hold the potential to give different effects, as seen above in Table 3. Finally, each organisation (as well as each target set of stakeholders) has specific constraints. For these reasons, it is important to match the stakeholder involvement technique to needs and constraints, desired effects and goals. To achieve this, the organisation must develop *selection criteria*. The same criteria may serve later to evaluate the involvement programme.

As mentioned above, the appropriate level of involvement (Table 1) is a fundamental criterion. It should be carefully set and communicated to potential participants (Box 1).

Further criteria could be drawn from Table 2 of involvement goals, or Table 3 of potential effects. Some handbooks listed in the annotated bibliography of this short guide may be particularly helpful in setting criteria. "*Participation works!*" [26, pp. 7-8] suggests that a list should be made of desired effects and goals, as well as constraints. These will all form criteria for choosing a technique. Members of the organisation who will implement stakeholder involvement should discuss this list and the ranking of criteria. The criteria should be ranked by order of importance.

The Environment Council [19] provides questions and points that members could discuss ("Key steps for engagement – Step 1 – identify purpose, people and constraints", pages 14-18). If the organisation seeks to develop or restore social trust through engaging with stakeholders, members might wish also to discuss the material provided by the E7 [17] ("Implementation suggestions", Chapters 5-8).

Diverse criteria that were chosen by local authorities for community purposes are mentioned throughout "*Participation works!*" [26]. Samples include: "Method chosen should be adapted for use by a variety of stakeholders; adapted for use by different sized groups; be easily recorded; fit within a limited

time slot of an evening or half a day; break through traditional opposition of arguments in order to develop a picture that reflects the diversity of a community (...)

Criteria for the process or the outcome of stakeholder involvement should also be used for the later evaluation of the initiative. Evaluation is discussed by the FSC topical session [5] and by RISCUM II [13], and in the U.S. Federal Register [30]. See the annotated bibliography for other documents dealing with evaluation.

In every case, the Forum on Stakeholder Confidence observes that involvement techniques are not best used for an isolated, “one-off” or “add-on” initiative. In fact, appropriate involvement of relevant stakeholders is advisable throughout a management or decision-making process. Specific techniques will give best results, for participants and for the institutions that organise dialogue, if they support a logical step in well-defined process of management or of decision. This overall process justifies the use of a specific instrument at a given time, in order to obtain a needed output. Within this process, different issues or problems take centre stage at different times. They will frame the choice of techniques, in order to elucidate, for example: national or local considerations, or predominantly societal or technical choices.



## 5. CHOOSING A TECHNIQUE

Most publications state that the actual choice of a technique is an art, and not a science. Stakeholder involvement techniques usually can be applied to a broad range of issues. As discussed above, the criteria developed in response to a specific context, constraints, desired goals and effects, will certainly differ between organisations.

For these reasons, no “one size fits all” list of criteria can be offered a priori. A definitive matrix matching techniques to criteria therefore does not exist. However, the handbooks and manuals do describe different techniques in terms of *generic* criteria (such as level of involvement, scale of consultation – intensive vs. extensive, representative character, inclusiveness, deliberative qualities...).

A study by Rowe and Frewer [38; quoted in 29] notes two families of criteria for selecting a technique, related to process considerations, and, to the acceptance by the public of the technique. “Generally speaking, if methods of public involvement were measured against these criteria it becomes evident that no single method can attain a perfect “score”... Invariably a number of different methods may be utilised as part of one decision-making procedure” [29, p. 80].

Finally, experience shows that the success of a particular technique will depend also on external factors: the phase of decision, the political and cultural context.

When the organisation’s ranked list of criteria is settled (or when a preliminary list has been developed), the planner should review existing techniques to form an idea of which might fit best. The most attractive guides offering a “quick entry” or rapid review of involvement techniques include [9; 18; 27; 31].

When a set of potentially suitable techniques has been identified, more detailed sources may be consulted. Some handbooks point the reader to detailed information. The Internet is also a useful tool for searching out methodological descriptions and case studies.

One means for weighing techniques is to consult very pragmatic advice on their implementation. Guides providing such advice are also mentioned in the bibliography.

It will be of great value for the planner to contact and discuss experience with persons who have conducted involvement initiatives. Such conversations could take place at different points as the planner moves through the steps suggested above. As the desired technique comes into focus, planners should try to exchange with persons who have used that one in particular. Some guides suggest specific contact information. In some cases the planner will consult and/or retain the services of a professional to set up and conduct the initiative, but the planner should perform the preparatory steps to identify the right family of techniques before “buying”.

## 6. LOOKING TOWARDS IMPLEMENTATION

In the publications presented in the annotated bibliography, implementation advice ranges from “best practice” tips to flow charts and worksheets that may be printed out. The outstanding publication by the U.S. EPA [20] contains extremely detailed briefs and checklists for implementing 19 public participation techniques.

Decisions implied by actual implementation are beyond the scope of this short guide. However, comments may be made in regard to preparing programmes at different levels of involvement (see Table 1).

The organisational goal of *informing or educating* implies developing appropriate public information materials. Information materials will be useful only if they can be understood and interpreted by their intended audience.

*Gathering information* from stakeholders is sometimes accomplished by large-scale public consultation techniques (polls or surveys). Almost everyone has been annoyed one day by a survey whose questions or multiple-choice responses did not match the way one would express one’s own opinion. Survey items will deliver meaningful results only if they are built up from an understanding of how people indeed construe the issues explored by the survey.

Preparing adequate information material, like preparing an adequate survey questionnaire, is a skilled professional task. Each should be adapted to the “starting position” of the stakeholder population. For both information material and survey questionnaire development, it can be beneficial to perform in-depth, reduced-scale preparatory studies exploring the starting positions or “mental models” of the various stakeholders including experts.<sup>14</sup>

Higher levels of involvement usually imply that participants will have the opportunity to communicate their views and judgements in detail, as well as learn from other stakeholders. Still, the planner may find preparatory small-scale studies or consultations useful for e.g., scoping the issues or identifying target stakeholder groups.

---

14. See Vári [7].

Planners of stakeholder involvement in technical areas will probably benefit from advice on communicating about risks. The U.S. NRC offers a risk communication handbook [15; 16] to support those who must translate complex information into a readily accessible form, and those who must talk and interact with a range of stakeholders who may not have technical training.

Finally, a planner may wish to make a broad announcement of stakeholder initiatives, or publicise their outcomes. Guidance may be found in a European Commission manual on successful communications using the mass media [23].

## 7. WHAT TECHNIQUES ARE AVAILABLE FOR HIGHER LEVEL INVOLVEMENT?

“Different processes provide different roles for the participants – for example, as users of a service, as self-interested individuals, as citizens within a collective, as interactive group members, or as individuals with fixed views or people who can debate and develop views. Most of the new consultation processes are more deliberative, enabling participants to develop positions and consider issues in relation to the common good rather than individual interests, and thus act as citizens”.<sup>15</sup>

Box 2 lists techniques corresponding to the higher levels of stakeholder involvement (i.e. *discussing, engaging, partnering*; the list roughly respects this increasing order of involvement, although different sources disagree on how the techniques respond to this criterion). These techniques have features of two-way, deliberative dialogues. They are in harmony with suggestions in favour of decision-making models that integrate both analytic and deliberative processes.<sup>16</sup> Box 3 highlights related conflict resolutions techniques, while Box 4 describes combination techniques.

---

15. Nirex [10], p. 8.

16. The “analytic-deliberative” model was presented by the National Research Council of the U.S. National Academy of Sciences. The components are defined as follows: “Analysis uses rigorous, replicable methods, evaluated under the agreed protocols of expert community such as those of disciplines in the natural, social, or decision sciences, as well as mathematics, logic, and law to arrive at answers to factual questions. Deliberation is any formal or informal process for communication and collective consideration of issues” (NRC [36], pp. 3-4). In this model, analysis and deliberation are not only complementary, but also strongly interrelated: “Deliberation frames analysis and analysis informs deliberation. Thus, risk characterization and decision making more generally is the output of a recursive process, not a linear one” (ibid., p. 20). This model describes a mutual learning process among parties involved in the analytic and the deliberative aspects of decision making.

## Box 2. Commonly cited techniques for informing deliberation through stakeholder involvement<sup>17</sup>

**Public hearings:** Regulated, formal arrangements for times and places at which members of the general public and other types of stakeholders can give evidence or question public authorities about decisions under consideration.

**Deliberative polling:** Like opinion polling, but collects views after persons have been introduced to the issue and have thought about it. Meant to give an indication of what people would think if they had the time and information to consider the issue (instead of reacting “cold”). Includes a feedback session, sometimes with a high media profile (e.g. broadcast by television along with documentary inserts).

**Focus groups:** Small groups of invited or recruited persons discuss a theme or proposal; provides insight on their reactions, values, concerns and perspectives, and an indication of how group dynamics influence opinions.

**Citizen advisory groups:** Small groups of persons who represent various interests or expertise (e.g. community leaders) meet on a regular or ad hoc basis to discuss concerns and provide informed input.

**Consultative groups:** Forums that call together key representatives of civil society (NGOs and CSOs), economic and political spheres, to make policy recommendations and to improve the ongoing dialogue between these actors.

**Nominal group process:** A structured group interaction technique designed to generate a prioritized list of high-quality ideas within two hours or less. It is particularly helpful for setting goals, defining obstacles, and gathering creative responses to a particular question.

**Multi-actor policy workshops:** Small groups mixing key stakeholders and technical experts, aimed at collecting a range of viewpoints on what are the important question raised by the dialogue issue. These may allow an innovative view of the problem to emerge, along with new approaches to its solution.

**Charette:** From 20 to 60 persons work co-operatively to find solutions to a given problem within a set time period (usually one day). An experienced facilitator is needed. This technique is of interest to assemble practical ideas and viewpoints at the beginning of a decision process, and to address difficult matters involving many different interests.

**Delphi process:** Persons with different expertise or interests relevant to a problem participate in a series of planned, facilitated discussions (either face-to-face or by correspondence). It is used to develop fact-based decisions and strategies reflecting expert opinion on well-defined issues. Because input is anonymous, more equal consideration may be given to the diverse views.

---

17. Drawn and adapted from van den Hove [39], NRC [36], Ney & Mays [44], and Health Canada [42].

## Box 2. Commonly cited techniques (cont'd)

**Round tables:** representatives of different views or interests come together to make decisions on an equal footing. May last for several days. Most valuable when used at the beginning of a process to set broad policy orientations.

**Citizen task forces:** Persons with some special knowledge or representing some interest of the community may be appointed to a temporary task force, organised to consider in depth some issue on which decision is required. The group meets a number of times, often in the company of organising entity representatives, to consider information and formulate recommendations.

**Study circles:** Five to 20 people agree to meet together 3-5 times to discuss a specific topic (or, meetings are scheduled on a weekly or monthly basis for more complex sets of topics). Information materials are provided over time. Emphasises co-operative and integrated learning and mutual respect. Useful to monitor or document the evolution of a group's thinking in regard to a particular issue and generate recommendations based on a shared body of knowledge. A **study group** may call on different modes of participation (e.g., electronic) from a wider group of participants, and does not track change over time in regard to new information and learning.

**Scenario workshop:** A local meeting where scenarios are used to stimulate vision making and dialogue between policy makers, experts, business and concerned citizens. It is a technique of technology assessment in which the workshop participants carry out the assessments and develop visions and proposals for technological needs and possibilities. Allows the exploration of different possible future technological strategies and at the same time facilitates actual cooperation in the direction of the strategy chosen.

**Referendum:** For reasons of cost, the only very large-scale public decision format is the popular vote. All normally registered voters (or all persons meeting a stated criterion) can express their opinion. While this technique enjoys a high level of perceived legitimacy, complex decisions must be reduced to their simplest binary form to be proposed to the ballot. Setting up such a procedure can be an efficient way of attracting citizens' attention to the issue at hand and allowing citizens to collect information about the different positions taken by public figures.

**Consensus conferences:** These are organised at a national level, usually by a "neutral" organisation. A small group of volunteer citizens is chosen to be representative of the public at large, or, to represent a spectrum of viewpoints. They meet for several weekends to learn about the dialogue issue and to question relevant experts. The citizen participants then produce a report with their conclusions and recommendations, to be delivered to public decision makers.

## Box 2. Commonly cited techniques (cont'd)

**Citizens' juries:** Participants are recruited by lottery to serve their community by taking part in deliberations on a planning decision that will affect a geographically situated population: e.g., to designate precise a site for a (conventional) waste management installation. The organising institution, or delegate staff, propose some number of decision options among which the jury must choose. These options could be developed beforehand by the institution alone, or with the input of other consultative techniques.

**Citizens' panels:** Citizens' panels are similar to juries, except that they also develop a range of options before deciding upon one.

**Participatory site selection:** Committees grouping citizen representatives and various types of technical experts work together over a significant period of months or years to develop solutions acceptable from both a technical and societal point of view. Auxiliary techniques may be used to inform or consult the larger community (e.g., information campaigns, referendum) and the committee may extend its lifetime to monitoring the installation.

**Local monitoring, oversight and information committees:** Instated at the time of site (pre-) selection, or created when a risk-producing installation is built, such committees are a mechanism for ongoing involvement and dialogue among stakeholders and with the general public. In some countries these committees are required by law; in other contexts, they may be created to improve relationships between the community and institutional personnel and contribute to better risk management. Different levels of empowerment are provided to these committees: in some contexts, they take major decisions (e.g., they can require installation closure if certain safety requirements are not met); at the other end of the scale, they serve primarily as a forum for exchange and dissemination of information. They typically include representatives from elected bodies and from civil society organisations (chambers of commerce, environmentalist groups...), and they may be of small or very large size (6 to 90 persons, depending on the definition given to "affected public" and the system of representation that is chosen). The management of the industrial installation, or of the organisation responsible for the risk-producing site, as well as safety authorities and other national stakeholders, may be represented on the oversight committee as members, or they may be permanent or occasional interlocutors.

Stakeholder involvement techniques may be focused on any suitable dialogue issue. In the given case, the dialogue issue could be radioactive waste management overall, or any of the specific decisions, options, steps, or issues (ethical, economic...) that make up part of radioactive waste management.



Clearly, not every technique on the list can be used by every type of organisation, nor be applied to every type of policy issue or every decision stage. Advice on adapting techniques to phase is given by [9].

The list that follows is by no means exhaustive. Also, the short generic description offered here may not correspond exactly to specific examples familiar to each reader: this is because, under a single technique label, field practitioners may design slightly different implementations.

The annotated bibliography points to documents that list more techniques and advise on matching them to specific needs and goals. As well, handbooks for planning, implementing, and evaluating stakeholder involvement programmes are identified in the bibliography.

Box 3 mentions related techniques for “alternative dispute resolution” (i.e. they offer an alternative to going to court, or make it less likely that the parties will need to go to court later).

### Box 3. **Alternative dispute resolution**

**Policy dialogues:** A small group is created to facilitate informal but structured dialogue between a range of stakeholder representatives and policy actors, often in the aim of generating useful suggestions or options for consideration by political decision makers.

**Regulatory negotiation or negotiated rule making:** Representatives of interested and affected parties work together with regulating government agency personnel to draft proposed rules. Participants are mandated by the group they represent, or are chosen because of some recognised expertise. Participants need negotiation skills. The function of such negotiation is to fine-tune regulation before its application, so as to avoid legal or other challenge, and to improve its responsiveness to the needs of affected parties.

Combinations of techniques may be used to obtain and integrate different stakeholders' input into decisions (Box 4). Large-scale national dialogue processes, too, may use a combination of techniques.

#### Box 4. Combination techniques

**“Deliberative mapping”**: A set of universities in the United Kingdom proposes this technique for judging how well different courses of action perform according to economic, social, ethical and scientific criteria generated by participants. The aim is to form a basis for more robust, democratic and accountable decision making that better reflects public values. Deliberative mapping combines assessments by individual specialists and members of the public or citizens. A software-supported multi-criteria mapping technique and citizens' panels are each used. This approach is described in briefs available at [[www.deliberative.mapping.org](http://www.deliberative.mapping.org)].

**“Three-step procedure”**: Renn, *et al.* [47] have developed a three-step procedure for stakeholder input into public policy decisions. Interest groups each generate a “value-tree analysis” to identify and weight their preferences and concerns in regard to the dialogue issue. Experts then participate in a “modified Delphi process” in which they judge how each policy option will affect the outcomes of concern to the interest groups. Finally, a panel of randomly selected citizens deliberates on the Delphi results, expert presentations, further fact finding, and panel members' own views, to deliver a report and action recommendations to public decision makers.

Finally, new information and communication technologies (ICT) may offer the potential to engage citizens. This challenge was addressed by a major OECD study [27; 45]. Among the existing initiatives some targeting young people might be mentioned: the Schools Website [13] and the Radio-Democs game [[http://www.delib.co.uk/radio\\_democs](http://www.delib.co.uk/radio_democs)].

## 8. ANNOTATED BIBLIOGRAPHY

The sources cited in this short guide and other useful documents are referenced and briefly described. They are divided into four categories:

1. The **Forum on Stakeholder Confidence** has a number of publications concerning stakeholder involvement techniques. Most of these can be downloaded from [<http://www.nea.fr/html/rwm/fsc.html>].
2. Some **FSC member organisations** have published guidance on public participation. A review of involvement experience in RWM was produced by the EC-sponsored research programme RISCOM II, in which a number of FSC members participated.
3. Persons interested in stakeholder involvement (implementation and evaluation) have a great choice of **resources on the Internet**. These include short practitioner's handbooks or detailed manuals. The U.S. Environmental Protection Agency in particular has amassed significant experience in this field, and it is shared in user-friendly manuals.
4. **Scholarly or technical publications** can be useful in the planning stage. They provide insight on the rationale for stakeholder involvement, and reflect on what participation implies for the organisation, for the public, and for society. Detailed case studies can help the planner "walk through" a dialogue process in order to better anticipate events and needs.

All of these documents are *easily available*, through the Internet or publishers. In a fifth category are listed documents of interest but which are more difficult to obtain, and the other background references quoted in this short guide.

## 8.1 Publications by the OECD Nuclear Energy Agency Forum on Stakeholder Confidence

The FSC Workshop Proceedings contain contributions worth re-reading when thinking about stakeholder involvement techniques. A few in particular are mentioned below, along with other NEA documents cited in this short guide.

- [1] OECD/NEA (2000), *Stakeholder Confidence and Radioactive Waste Disposal*. Inauguration, First Workshop and Meeting of the NEA Forum on Stakeholder Confidence in the Area of Radioactive Waste Management. OECD, Paris.

*Online:* [<http://www.nea.fr/html/rwm/reports/2000/nea2829.pdf>]

Brown, P., “The Canadian experience with public interveners on the long-term management of nuclear fuel”, pp. 53-57. [Suggestions were received from participants and organisers on how to improve a process of public hearings and written input.]

Thegerström, C., “Ten years of siting studies and public dialogue: The main lessons learnt at SKB”, pp. 65-66. [Advice is offered to the persons who must provide the driving force behind e.g. a siting process. Methods for involvement are not reviewed, but the necessary attitude is described.]

Vanhove, V., “Working with Local Partners: The ONDRAF/NIRAS approach to the disposal of short-lived low-level waste”, pp. 131-137.

This is the FSC’s first introduction to the Belgian local partnership concept. In two Flemish municipalities, community representatives and implementer staff have worked together in committee over a period of years to build an integrated socio-technical proposal for a repository. (A third local partnership was formed subsequent to this publication. **Proceedings of the FSC Belgium Workshop, centred on the three local partnerships, are forthcoming in 2004.** *The summary of this event is available online at:* [<http://www.nea.fr/documents/2004/rwm/rwm-fsc2004-4.pdf>]

- [2] OECD/NEA (2002), *Stepwise Decision Making in Finland for the Disposal of Spent Nuclear Fuel*. Workshop Proceedings, Turku, Finland, 15-16 November 2001. NEA #03616, ISBN: 92-64-19941-1. OECD, Paris. *Ordering information online:* [<http://www1.oecd.org/scripts/publications/bookshop/redirect.asp?662002161P1>]

Hokkanen, P., “Public participation in the Environmental Impact Assessment: One alternative of involvement”, pp. 59-60. [The author, a political scientist, shows the benefits and the stumbling blocks associated with the use of the EIA as a tool of information and involvement in the RWM process.]

Rosenberg, T., “What could have been done? Reflection on the radioactive waste battle as seen by below”, pp. 65-70. [A major figure in the local resistance to deep disposal reflects on the formal involvement process as a piece of theatre whose script was “written in advance”.]

- [3] OECD/NEA (2003a), *Public Confidence in the Management of Radioactive Waste: The Canadian Context*, Workshop Proceedings, Ottawa, Canada, 14-18 October 2002. NEA #04292, ISBN: 92-64-10396-1. *Ordering information online:*  
[<http://www1.oecd.org/scripts/publications/bookshop/redirect.asp?662003211P1>]

O’Connor, M., “Building relationships with the wastes”, pp.177-190.

Presents an interesting argument regarding the need in the RWM process for participation and deliberation by affected communities. Three components must be taken into account: the “scientific side of the story” (the need to measure and manage radiological risk), the social dimension (building relationships with the wastes so that relevant communities can interact with the sites and what is stored there), and the political and economic side (the need to develop partnerships that can implement agreed solutions). Each calls for deliberative attention.

- [4] OECD/NEA (2003b), *Public Information, Consultation and Involvement in Radioactive Waste Management*. An international overview of approaches and experiences. NEA/RWM/FSC(2002)3. OECD, Paris. *Online:*  
[<http://www.nea.fr/html/rwm/reports/2003/nea4430-publicinfo.pdf>]  
Also available in French.

This is the analysis of the public involvement questionnaire sent to all NEA Radioactive Waste Management Committee member organisations in 1999 (updated in 2002). Organisations from 15 countries described public outreach or participation initiatives. The report summarises these initiatives and their outcomes, highlighting “what went wrong and what went right”.

- [5] OECD/NEA (2003c), *Stakeholder involvement tools: Criteria for choice and evaluation*. Proceedings of a Topical Session at the 4<sup>th</sup> meeting of the NEA Forum on Stakeholder Confidence. OECD, Paris *Online:*  
[<http://www.nea.fr/html/rwm/docs/2003/rwm-fsc2003-10.pdf>]

Speakers at the FSC Topical Session review: the justification for involving stakeholders in environmental governance; the Danish Consensus Conference approach for providing public input to parliamentary decisions; **criteria for evaluating dialogue processes (including online engagement) and outcomes**. The session rapporteur shows how selecting involvement techniques is part of a larger planning process in which not just methods, but context and goals also must be considered.

- [6] OECD/NEA (2004), *Stepwise Approach to Decision Making for Long-term Radioactive Waste Management Experience, Issues and Guiding Principles*. NEA #4429, ISBN: 92-64-02077-2. Online: [<http://www.nea.fr/html/rwm/reports/2004/nea4429-stepwise.pdf>]

This Secretariat paper states the case for stepwise decision making in radioactive waste management, and for why stakeholder involvement should be an integral part of the process.

- [7] Vári, A. (2003), *The mental models approach to risk research: A radioactive waste management perspective*. Secretariat Paper. Online: [<http://www.nea.fr/html/rwm/docs/2003/rwm-fsc2003-7-rev1.pdf>]

Information efforts may fail if materials reflect the “expert” view without responding to the audience’s prior understanding and interests. Similarly, opinion polls will not deliver meaningful results if the questions asked are not pertinent to the way people think about the issues. The “mental models” approach developed at Carnegie-Mellon University consists of detailed interviews with different types of stakeholders in order to scope out the various manners of construing the issues. In this way, information and consultation techniques can be successfully adapted and communication among groups facilitated.

- [8] Vári, A. (2004), “An overview of the reports of nine organisations on addressing issues raised by stakeholders”. In OECD/NEA, *Addressing Issues Raised by Stakeholders: Impacts on Process, Content, and Behaviour in Waste Management Organisations*. Proceedings of a Topical Session at the 5<sup>th</sup> meeting of the NEA Forum on Stakeholder Confidence. Online: [<http://www.nea.fr/html/rwm/docs/2004/rwm-fsc2004-8.pdf>]

Nine FSC member organisations reported on specific experiences in soliciting and considering stakeholder input. Summary tables state, for each experience, the decision and decision maker, the stakeholders and the involvement techniques, and the impacts on processes and outcomes. Most frequently used techniques are listed, along with important lessons learnt.

The Proceedings in which this overview appears also include texts by the U.S. NRC and by Nirex, reporting instances in which stakeholder input was seen to be needed and was gathered, and detailing the impacts on decisions and on organisational activities. As well, the French underground laboratory programme is described as an outcome of stakeholder demands on the RWM process.

## 8.2 Guidance from FSC members and research programmes in which they have participated

- [9] Nirex (2002a), *Review of consultation techniques for radioactive waste management*. Nirex Technical Note, interim version, document number 365521 (March), authors E. Atherton & J. Hunt. Harwell: Nirex. Available online (search with Author Name "Atherton"):  
[<http://www.nirex.co.uk/index/ibiblio.htm>]

This document (36 pages) should be "**the first stop**" in a journey toward stakeholder involvement. It is a **user-friendly review of 16 techniques ranging from opinion polls through stakeholder workshops to Internet consultation**. In tables, each process is tagged in terms of its features, type of participants and their recruitment. The features are explained in separate text and include e.g., "deliberative, inclusive of views, empowering of participants, outputs, contribution to institutional credibility". Another matrix lays out the stages of a decision and consultation programme related to radioactive waste, and **identifies possible techniques to apply at each stage**. An appendix briefly examines each technique in terms of its advantages and disadvantages, and points to examples of its use in RWM or other fields.

- [10] Nirex (2002b), *The front end of decision making*. Nirex Technical Note, interim version, document number 367478 (March), author E. Atherton. Harwell: Nirex. Available online (search with Author Name "Atherton"):  
[<http://www.nirex.co.uk/index/ibiblio.htm>]

"This technical note [15 pages] outlines Nirex's views on the mechanisms that can be used in the first stages of a decision-making process to engage with stakeholders, including the public, and identify their issues and concerns." As such it includes a clear discussion of the value of consultation and key principles and issues. More pragmatically, it **mentions eight techniques and why they might be used** at the front end of decision making. Reporting and evaluating consultation processes are briefly considered as well.

- [11] Nirex (2002c), *Environmental assessment and consultation as part of a stepwise process for radioactive waste management*. Nirex Technical Note, interim version, document number 385684 (April), author E. Atherton. Harwell: Nirex. Available online (search with Author Name "Atherton"):  
[<http://www.nirex.co.uk/index/ibiblio.htm>]

In 19 pages this report outlines how consultation techniques can be used within the umbrella processes of Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA). For each broad stage of these assessments, a few suggestions are given on choice of technique and target stakeholder groups.

- [12] RISCOM II (2001), *Stakeholder dialogue: experience and analysis*. RISCOM II Deliverable 4.1, prepared by J. Hunt, K. Day and R. Kemp. Available online: [<http://www.karinta-konsult.se/RISCOM.htm>]

The overall aim of the EC-funded research programme RISCOM II is to “enhance transparency and public participation in radioactive waste management”. This report “reviews and analyses European and North American experience in conducting dialogue in relation to RWM”. It includes 38 pages of text and tables, including useful definitions and country-by-country review of site-related consultation. A 21-page appendix briefs on the RWM and consultation situation (at time of publication) in 12 countries.

- [13] RISCOM II (2003), *Dialogue processes: Summary report*. RISCOM II Deliverable 4.11, prepared by E. Atherton, T. Hicks, J. Hunt *et al.* Available online: [<http://www.karinta-konsult.se/RISCOM.htm>]

This report (41 pages) describes the RWM dialogues undertaken in the UK under the RISCOM project, and their evaluation. A **Discussion Group, a Future Search exercise, a Scenarios Workshop and a Dialogue Workshop** were conducted. As well, an experimental **Schools Website** was developed for students aged 15-16 years. Each experience is **described in a frank and thoughtful manner, then evaluated on process criteria** like “transparency and legitimacy, equality of access, inclusive and ‘best’ knowledge elicited”, etc. Organisational issues also are highlighted, such as staff training to provide them with the skills to talk with the public in non-technical language and listen to their concerns. Finally, the theoretical and practical lessons learnt are presented. Then the results are matched against the RISCOM “Model of Transparency”, which is intended to help unfold the complexity of communication and decision making.

Note that the evaluation criteria suggested by this study are reviewed and analysed in the FSC Topical Session (reference [5] above) in the contributions by E. Atherton and A. Vári.

- [14] NRC [U.S. Nuclear Regulatory Commission] (2003), *Report of the Public Communications Task Force*. Available online (using access number ML032730836 or search using title): [<http://www.nrc.gov/reading-rm/adams.html>]

An eight-member internal task force evaluated current public communication effectiveness at the NRC and determined the needs of the agency. Ten strategic recommendations are explained and justified. This report (23 pages) treats the agency’s performance with realism, making its recommendations all the more pertinent and understandable. The reader will find an integrative vision of what public communications should be. As well, the forthrightness of the report could **facilitate the assessment of current performance** in other large organisations with a public mission.



- [15] NRC [U.S. Nuclear Regulatory Commission] (2004), *Effective Risk Communication: The Nuclear Regulatory Commission's Guidelines for External Risk Communication*. Prepared by J. Persensky, S. Browde, A. Szabo (NRC), L. Peterson, E. Specht, E. Wight (WPI). Available online: [<http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0308>]

This pocket handbook (70 pages) condenses state of the art knowledge on risk communication, defined as “an interactive process used in talking or writing about topics that cause concern about health, safety, security, or the environment”. Clear advice is given for crafting effective messages, communicating complex technical information, answering difficult questions, communicating in a crisis situation... This publication will be useful to persons **developing technical support documents for a stakeholder dialogue**, and for those persons who will be in **direct interaction with stakeholders during the involvement process**. It is well indexed, and includes references to a number of useful web-based resources.

- [16] NRC [U.S. Nuclear Regulatory Commission] (2004), *The Technical Basis for the NRC's Guidelines for External Risk Communication*. Prepared by L. Peterson, E. Specht, E. Wight (WPI). Available online: [<http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr6840>]

This report (112 pages) documents the scientific literature used to produce the handbook cited above. An annotated bibliography is provided, providing **valuable pointers not only to academic studies on risk communication but also, to practical references and manuals**. The publication also details the risk communication challenges identified in their work by NRC employees.

### 8.3 Further handbooks and manuals available on the Internet

- [17] E7 (2000), *Social trust and the electricity industry. An E7 contribution*. E7 Working Group Report. Montreal: E7 Network of Expertise for the Global Environment. Online: [[http://www.e7.org/PDFs/ST\\_&\\_Electricity\\_Industry.pdf](http://www.e7.org/PDFs/ST_&_Electricity_Industry.pdf)]

This 44-page brochure is devoted to the concept of “social trust”. For the E7, social trust is based on 7 behavioural principles that organizations should respect: competence, commitment, consistency, fairness, respect, caring, and empathy. Implementation suggestions are given for each principle, and these suggestions often concern stakeholder involvement issues. The brief bullet points in this brochure **could provide discussion material when setting up criteria for choosing/evaluating a technique**.

- [18] Environment Agency (2000), *Evaluating methods for public participation: Literature review*. R & D Technical report E135, prepared by J. Petts and B. Leach (U. Birmingham). Bristol: Environment Agency. *Online*:  
[<http://www.eareports.com/ea/rdreport.nsf/cb25ea8bb5cda7ce8025670d0046afca/d8f40013bb15fcb9802569a1003b8b64?OpenDocument>]

This report (68 pages) discusses arguments and United Kingdom requirements in favour of public input to environmental policy making. It examines how public participation can be implemented and managed and gives advice on fitting methods to goals. **Tables present 25 methods and discuss their advantages and disadvantages** (including consideration of cost). The review also presents **criteria for the “choice, design, implementation and evaluation of public participation methods”**, with special attention devoted to deliberative qualities. It identifies “remaining knowledge gaps” where more research on participation is needed. Although this thought-provoking scholarly report is not presented as a handbook, it is easy to read and **should be consulted if a well-argued formal justification of stakeholder involvement must be prepared.**

- [19] Environment Council (2003), *Best Practice Guidelines on Public Engagement for the Waste Sector*. London: The Environment Council. *Online*:  
[<http://www.the-environment-council.org.uk/docs/Waste%20Sector%20Guidelines.pdf>]

This 35-page publication in collaboration with the UK National Resource and Waste Forum targets conventional waste management. It builds on experience by local authorities, waste management companies, and waste/resource management professionals in engaging with their community, statutory or strategic stakeholders. **Seven key steps for engagement** (from planning to evaluation) are reviewed, using comprehensive lists of questions that the planner should ask in order to choose and conduct activities. **The discussion is very practical and gives the planner a good idea of exactly what needs to be arranged.**

- [20] EPA [U.S. Environmental Protection Agency] (1996), *RCRA public participation manual (Chapter 5, Public participation activities: How to do them)*. Washington, D.C.: EPA Office of Solid Waste. *Online*:  
[<http://www.epa.gov/epaoswer/hazwaste/permit/pubpart/manual.htm>]

This huge manual responds to the U.S. “Resource Conservation and Recovery Act (RCRA) Expanded Public Participation Rule” and sets out to show practitioners and stakeholders exactly how public information and input into site remediation can be achieved. As such it is oriented toward fulfilling specific permitting requirements and many parts of the manual are not directly relevant to this short guide. However, **Chapter 5** (143 pages, downloadable separately) provides **3- to 6-page clear and practical briefs on 19 techniques including community interviews, focus groups, hotlines, public meetings and hearings**. Provided are basic information on how to set up and conduct the activity, its advantages and

limitations, and extremely pragmatic operational checklists (even detailing the physical materials needed). Appendices (also downloadable in separate files) include interesting resources like the “Environmental Justice Public Participation Checklist” (Appendix D). Note that the entire manual is available also in Spanish.

- [21] EPA [U.S. Environmental Protection Agency] (2001), *Stakeholder involvement and public participation at the U.S. EPA. Lessons learned, barriers and innovative approaches*. EPA-100-R-00-040. Online: [<http://www.epa.gov/publicinvolvement/pdf/sipp.pdf>]

This short report (20 pages plus notes and bibliography) reflects on the lessons learned over the course of two decades of stakeholder involvement efforts. These lessons revolve around topics like: “establishing trust”; “credible data and technical assistance”; “recognise links between environmental, economic, and social concerns”. Each is expressed through brief, explicit references to EPA experience. The level of detail remains quite general. Overall the tone is one of reassurance; by learning about the many mistakes made along the way and the barriers encountered, the reader may avoid some of them. The section on innovative approaches to stakeholder involvement mentions a variety of events set up locally by EPA, year by year. This document does not give a systematic matrix or detailed information that will help practitioners choose among techniques, but it may spark ideas.

- [22] EPA [U.S. Environmental Protection Agency] (2003), *Community culture and the environment: A guide to understanding a sense of place*. EPA-842-B-01-003. Washington D.C., EPA Office of Water. Online: [<http://www.epa.gov.ecocommunity/pdf/ccecomplete.pdf>]

This extensive and detailed manual (293 pages) “offers a process and a set of tools for defining and understanding the human dimension of an environmental issue”. The aim is to achieve a “**community cultural assessment**”. It skilfully draws on research techniques from anthropology, cultural geography, political science and sociology. Early chapters combine short checklists of overall steps and advice on using the assessment outcome. Chapter 4 then provides in 50 pages **detailed flow charts on conducting the assessment, and worksheets that may be copied and filled out**. Matrixes indicate which techniques (from census review to community advisory boards) may be applied for different assessment needs. Resource annexes point to further information on each research technique. The discussion of 15 dimensions of community (e.g. boundaries, economic conditions, education, activism, infrastructure, governance, leisure, health, religious practices...) will be **particularly interesting to persons who must organise knowledge-gathering about a local community**.

- [23] European Commission (2004), *European research: A guide to successful communications*. Online:  
[[http://europa.eu.int/comm/research/conferences/2004/cer2004/pdf/rtd\\_2004\\_guide\\_success\\_communication.pdf](http://europa.eu.int/comm/research/conferences/2004/cer2004/pdf/rtd_2004_guide_success_communication.pdf)]

This attractive 40-page brochure was written for research leaders in the European Commission 6<sup>th</sup> Framework programme to aid them in disseminating the results of their research. It will be useful to anyone who has to **design an information campaign or publicise stakeholder involvement initiatives or results**. Concrete advice for improving user interface on websites, writing press releases or holding press conferences, and using other mass communication media is provided.

- [24] IAP2 [International Association of Public Participation] (2000-2003), *The IAP2 Public Participation Toolbox*. Online:  
[<http://iap2.org/practitionertools/toolbox.pdf>]

In ten pages, some forty-five techniques are mentioned. The toolbox is simply a table naming techniques “to share information” (these are the most numerous), “to compile input and provide feedback”, or “to bring people together”. This table lets the planner quickly identify a type of technique that may be appropriate for a given situation, but does not point the way to more information. Three types of comments are offered for each technique. “Always think it through” offers short advice to orient the planner’s choice. “What can go right” and “What can go wrong” refer to strong or weak points of the technique.

- [25] Ministère de l’Équipement, des Transports et du Logement (2002), *Concertation/Débat public: Quelques leçons de l’expérience*. Collection “Les repères”, January. La Défense (France): Conseil Général des Ponts et Chaussées, Service de l’Information et de la Communication (+ 33 1 40 81 21 22).

This **French-language** pocket book (112 pages) offers general but structured advice to “all those who conduct and accompany” infrastructure, transport and urban planning and siting, whether they organise stakeholder involvement or simply participate. Written from a public planner point of view, it addresses the different types of stakeholder who are officially involved in such actions, and cites experience in French localities. Seven fundamental rules are briefly enunciated (e.g. “guarantee room for controversy”, “keep arrangements flexible”).

- [26] New Economics Foundation/UK Participation Network (1998), *Participation works! 21 techniques of community participation for the 21<sup>st</sup> century*. London: NEF. Online:  
[[http://www.neweconomics.org/gen/z\\_sys\\_PublicationDetail.aspx?PID=16](http://www.neweconomics.org/gen/z_sys_PublicationDetail.aspx?PID=16)]

This attractive set of information briefs is now out of print, but available on the web. Its preface states: “Everyone says participation works. But what does participation really mean, and what makes it really happen? This handbook

contains 21 proven techniques from around the world. It shows how to choose between them, how to use them properly and where to go for more information.” **Advice and examples are given in regard to setting criteria for selection.** Professional UK contact information is provided for each technique. The short case illustrations mainly focus on municipal initiatives to inform and involve residents in major planning decisions, or on preparing such initiatives. Another type of initiative is “social auditing” of an organisation with a public mission. The techniques listed here depend on highly motivated people to lead innovative, introspective processes. They often involve resource-intensive approaches like providing a 3-D model of an area to help envision how it could be changed, or organising community event days. The tone of the handbook is enthusiastic.

- [27] OECD (2001), *Citizens as Partners: OECD Handbook on Information, Consultation and Public Participation in Policy Making*. OECD, Paris. *Online:*  
[<http://www1.oecd.org/publications/e-book/4201141E.PDF>]  
Available in Portuguese and Russian; overview in Spanish. Consult:  
[<http://www1.oecd.org/publications>]

This **excellent introductory** pocket handbook (112 pages) targets large-scale communications between public officials and the population, but the thoroughly professional advice offered will be useful for planning and evaluating smaller initiatives. Five suggestions are detailed in a clear, pragmatic way: “build a framework, plan and act strategically, choose and use the tools, benefit from new information and communication technology, put principles into practice”. It mentions tools for information, consultation, and active participation. Ten “tips for action” draw on the experience of OECD countries who contributed to the foundation study on strengthening government-citizen relations [45]. These tips (e.g. “start from the citizen’s perspective – watch timing – be prepared for criticism – involve your staff”) will **prepare the planner who must take responsibility for the involvement initiative.**

- [28] OECD (2003), *Engaging citizens online for better policy making*. Policy brief. OECD Observer, Paris. *Online:*  
[[http://www.oecd.org/publications/Pol\\_brief](http://www.oecd.org/publications/Pol_brief)]

This **informative and pragmatic policy brief** (7 pages) draws on a major study [38]. It delivers **10 guiding principles** for successful online consultation of the public, **a matrix** to match tools for online engagement to each stage of policy-making, **7 issues** that should be addressed by **evaluation**, and the **five main challenges** for the future of engaging citizens through **new information and communication technologies (ICT)**.

- [29] OECD/NEA (2002), *Society and Nuclear Energy: Towards a Better Understanding*. ISBN 92-64-18494-5. OECD, Paris. *Online*:  
[<http://www.nea.fr/html/ndd/reports/2002/nea3677.html>] *Also available in French.*

Chapter 4 (25 pages) of this easily available booklet contains a good discussion of public participation in nuclear decision making. It considers levels and justifications for involvement, and how participation may facilitate the development of trust. In a section on “innovations” in participation, short **pragmatic descriptions of various consultation and survey techniques** are provided. Especially interesting is the more **detailed consideration given to the use of Geographical Information Systems (GIS)** for mapping the areas that may be affected by a siting decision. GIS may be used to layer on information about how different affected groups perceive the space. This chapter also reviews the technique selection criteria proposed by Rowe and Frewer [38].

- [30] U.S. Federal Register (2000), *ADR Program Evaluation Recommendations*. (65) 59200, 59208-14 (October 4, 2000). *Online*:  
[<http://www.epa.gov/adr/evalu.pdf>]

“Alternative and appropriate dispute resolution” (ADR) techniques are used by the U.S. EPA for resolving environmental conflicts in communities. This excerpt from the Federal Register contains detailed recommendations on ADR **programme evaluation**. This document of 20 pages presents a convincing argument in favour of the organisational feedback that can be obtained from evaluating stakeholder interactions, and **outlines very practical steps and criteria for evaluation**. It also contains advice on **presenting and disseminating the results** of evaluation. The recommendations may be adapted to stakeholder dialogues even when these do not address highly contentious situations.

- [31] U.S. Institute for Environmental Conflict Resolution (2002), *Best practices for effective public involvement in restricted-use decommissioning of NRC-licensed facilities*. Report developed for the U.S. Nuclear Regulatory Commission Office of Nuclear Material Safety and Safeguards, Decommissioning Branch. *Online*:  
[<http://www.nrc.gov/materials/decommissioning/best-practices-report3.pdf>]

This handbook is perhaps the **most detailed of the short guides** presented in this bibliography. In 56 pages it discusses the reasons for public involvement in decommissioning and presents guidance on planning and implementing stakeholder involvement programmes in this area. Six group discussion techniques are reviewed to help the planner match them to the goals and level of involvement sought. Each page includes point-by-point “best practices tips” that will be pertinent in many participation settings. The handbook cannot deliver a tailor-made, do-it-yourself dialogue programme, but **the reader will feel as if an experienced practitioner accompanies him or her in thinking about each step.**

#### 8.4 Scholarly and technical publications

- [32] Beierle, T.C. and Cayford, J. (2002), *Democracy in practice: Public participation in environmental decisions*. Washington, D.C.: Resources for the Future (ISBN: 1891853538).

This book (208 pages) reports a systematic study of 239 U.S. cases to evaluate whether, and when, public participation does improve environmental decision-making. The authors show that “public participation has not only improved environmental policy, but it has also played an important educational role and has helped resolve the conflict and mistrust that often plague environmental issues”. Seen among the key factors for success are agency responsiveness and participant motivation. **“For policy makers, political leaders, and citizens [the book] provides concrete advice about what to expect from public participation and how it can be made more effective.”**

Note that a **summary presentation** by J. Cayford is available in OECD/NEA (forthcoming in 2004) *Stakeholder participation in decision-making involving radiation: Exploring processes and implications*. 3<sup>rd</sup> Villigen Workshop, Villigen, Switzerland, 21-23 October 2003. Watch [<http://www.nea.fr>] for publication.

- [33] HSE [U.K. Health and Safety Executive] (2001), *Stakeholder participation methods: Scoping study*. Contract research report 317/2001 prepared by G. Breakwell (U. Surrey) and J. Petts (U. Birmingham). Norwich: Her Majesty’s Printing Office. *Ordering information online:* [<http://www.publications@wrcplc.co.uk>]

This technical paper (16 pages) examines how “difficult-to-access publics” can be reached and thereby included in consultations. “DAP” include minority or disadvantaged social groups, SMEs and micro firms, etc. This is not a handbook but it contains thoughtful information on how to get people’s attention and influence their behaviour, factors that turn off attention and participation, etc. This paper could be used as **background in planning a consultation that requires reaching out to a very broad public.**

- [34] Joss, S. (editor) (1999), Special issue on public participation in science and technology. *Science and Public Policy*, Volume 26, No. 5, October.

This scholarly collection includes detailed case studies of five methods for public involvement (from focus groups to web-based consultation) as well as theoretical analysis.

- [35] Joss, S. & Bellucci, S. (editors) (2002), *Participatory technology assessment: European perspectives*. London: Centre for the Study of Democracy (University of Westminster).

This scholarly book, based on the EC-funded EUROPTA research programme [<http://www.tekno.dk/europta>], reviews the use of citizens' panels, scenario workshops, consensus conferences and other participatory techniques to assess societal choices. Sixteen cases include urban traffic, drinking water, genetic modification, and electricity production modes. General factors for effective and efficient management of participatory arrangements are identified.

- [36] NRC [National Research Council] (1996), *Understanding risk: Informing decisions in a democratic society* (P.C. Stern and H.V. Fineberg, editors). Washington, D.C.: National Academies Press.

With a mix of theory and practical examples, this book builds the case for an **"analytic-deliberative" process** involving scientific experts, affected persons and decision-makers. It targets getting the "right" science and the "right" participation to address risk issues effectively. An appendix gives a brief description of a number of involvement techniques.

- [37] Renn, O., T. Webler, and P. Wiedemann (eds.) (1995), *Fairness and competence in citizen participation: Evaluating models for environmental discourse*. Boston: Kluwer Academic Publishers.

This scholarly book presents detailed case studies of seven models for public participation in environmental decision-making (from planning cells to regulatory negotiation). It analyses how well these approaches handle conflict and complexity, as well as other pertinent criteria. This is a **major reference for persons interested in the rigorous, theory-based evaluation of participatory approaches**.

- [38] Rowe, G. & Frewer, L. (2000), "Public participation methods: A framework for evaluation". *Science, Technology and Human Values*, Vol. 24, No. 1, pp. 3-29.

This paper in fact addresses not evaluation, but, selection of techniques for public participation. It is based on a study of techniques that have been used for diverse issues in the UK, and groups them according to two families of criteria: process criteria (related to the effective construction and implementation of a participation procedure) and acceptance criteria (related to the potential public acceptance of a procedure).

These criteria are quoted and recalled in the easily available OECD NEA study on "Society and Nuclear Energy" [29].



- [39] van den Hove, S. (2001), “Approches participatives pour la gouvernance en matière de développement durable : Une analyse en termes d’effets”, in Froger, G. (ed.) *Gouvernance et développement durable*. Basel: Helbing & Lichtenhahn.

This chapter (38 pages; **in French**) reviews participative arrangements in terms of their substantive, procedural and contextual effects on the societal management of sustainable development. Interesting consideration is given to protecting against the possibility that participation may be used to justify decisions without shaping them.

Elements of this chapter are discussed in van den Hove, S. [48].

## 8.5 Documents of interest – other sources cited in this short guide

- [40] COWAM Network (2003), *Nuclear waste management from a local perspective. Reflections for a better governance*. Final report for EC DG RTD Contract No. FIKW-CT-2000-20072. Paris: Mutadis. *Online*: [<http://www.cowam.com/documents/COWAM-FR2003.pdf>] *Also available in French*.

COWAM, or Communities and Waste Management, is a European Commission-sponsored networking and research initiative. The final report (58 pages) from the first stage of the programme (2000-2003) gives a multi-stakeholder view of how local, regional and national partners have been – or should be – involved in making RWM decisions that will have impacts on the local community. “[...W]aste management is a global problem looking for a local solution. For this reason, there is an increasing need to have society, and notably directly concerned local people, involved in the decision-making process. [...]he involvement of the regional and local communities in the decision-making process appears more and more to be a key dimension.” The report details seven local case studies, and delivers the recommendations developed during the COWAM process, in itself an example of stakeholder involvement.

- [41] European Commission (2001), *European Governance: A White Paper*, COM(2001) 428. *Online*: [[http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001\\_0428en01.pdf](http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0428en01.pdf)]

- [42] Health Canada (2000), *Health Canada policy toolkit for public involvement in decision making*. Ontario: Ministry of Public Works and Government Services Canada. *Not available online. Paper copies are said to be available through the Corporate Consultation Secretariat of Health Canada, but no contact information is given.* [<http://www.hc-sc.gc.ca/english/index.htm>]

This manual (152 pages) organizes over 3 dozen techniques by level of involvement. It briefly describes each one in 2-4 pages, reviewing when each one is most useful and its potential pitfalls. Includes consideration of logistics and costs.

[43] Kotra, J. “Is there a new dynamic of dialogue and decision making?”, in OECD/NEA [1], pp. 139-140.

[44] Ney, S. & Mays, C. (2000), *Thinking about pension reform: Discourse, politics and public participation*. Inception Report to the EC Programme on Improving the human research potential and the socio-economic knowledge base. Vienna: International Centre for Cross-disciplinary Research ICCR. Available from C. Mays, consultant to the NEA Secretariat.

Annex B (7 pages) describes nine participatory techniques organised according to type of output (information or decision), scale (large or small), and process (bottom-up or top-down).

[45] OECD (2001), *Citizens as Partners: Information, Consultation and Public Participation in Policy Making*. OECD, Paris. Online: [<http://www1.oecd.org/publications/e-book/4201131E.PDF>]. Also available in French. Overview available in Italian, Portuguese, and Spanish. Consult: <http://www1.oecd.org/publications>

[46] OECD (2003), *Problems and promise of e-democracy: Challenges of online citizen engagement*. OECD, Paris. Online: [<http://www1.oecd.org/publications/e-book/4204011E.PDF>]

[47] Renn, O., Webler, T., Rakel, H., Dienel, P. C., and Johnson, B. (1993), “Public participation in decision making: a three-step procedure”. *Policy Sciences*, 26, 189-214.

[48] van den Hove, S. (2003), “Participatory approaches for environmental governance: Theoretical justifications and practical effects”, in OECD/NEA [5], pp. 18-25.

[49] Webster, S., “Stakeholders and the public: Who are they?”, in OECD/NEA [1], pp. 97-98.

## ALSO AVAILABLE

### NEA Publications of General Interest

*NEA News*

ISSN 1605-9581

2005 subscription: € 49 US\$ 56 £ 31 ¥ 6 600

*Nuclear Energy Today*

ISSN 92-64-10328-7

Price: € 21 US\$ 24 £ 14 ¥ 2 700

### Radioactive Waste Management

*Geological Disposal: Building Confidence Using Multiple lines of Evidence* (2004)

First AMIGO Workshop Proceedings, Yverdon-les-Bains, Switzerland, 3-5 June 2003

ISBN 92-64-01592-2

Price: € 50 US\$ 63 £ 35 ¥ 6 400

*The Regulatory Control of Radioactive Waste Management* (2004) – Overview of 15 NEA Member Countries, ISBN 92-64-10650-2

Price: € 50 US\$ 63 £ 35 ¥ 6 400

*Engineered Barrier Systems (EBS) in the Context of the Entire Safety Case* (2003)

Workshop Proceedings, Oxford, U.K., 25-27 September 2002

ISBN 92-64-10354-6

Price: € 45 US\$ 52 £ 30 ¥ 5 700

*Stepwise Approach to Decision Making for Long-term Radioactive Waste Management* (2004) –

Experience, Issues and Guiding Principles, ISBN 92-64-02077-2

Free: paper or web.

*Engineered Barrier Systems (EBS): Design Requirements and Constraints* (2004) – Workshop Proceedings, Turku, Finland, 26-29 August 2003, ISBN 92-64-02068-3

Free: paper or web.

*The Handling of Timescales in Assessing Post-closure Safety* (2004) – Lessons Learnt from the April 2002 Workshop in Paris, France, ISBN 92-64-02161-2

Free: paper or web.

*Safety of Disposal of Spent Fuel, HLW and Long-lived ILW in Switzerland* (2004)

An International Peer Review of the Post-closure Radiological Safety Assessment for Disposal in the Opalinus Clay of the Zürcher Weinland, ISBN 92-64-02064-0

Free: paper or web.

*Features, Events and Processes Evaluation Catalogue for Argillaceous Media* (2003)

ISBN 92-64-02148-5

Free: paper or web.

*The Regulator's Evolving Role and Image in Radioactive Waste Management* (2003)

Lessons Learnt Within the NEA Forum on Stakeholder Confidence

ISBN 92-64-02142-6

Free: paper or web.

*The French R&D Programme in Deep Geological Disposal of Radioactive Waste* (2003)

An International Peer Review of the "Dossier 2001 Argile"

ISBN 92-64-02136-1

Free: paper or web.

*Public Information, Consultation and Involvement in Radioactive Waste Management* (2003)

An International Overview of Approaches and Experiences

ISBN 92-64-02128-0 (Bilingual)

Available on the web.

*Engineered Barrier Systems and the Safety of Deep Geological Repositories* (2003) – State-of-the-art Report, ISBN 92-64-18498-8

Free: paper or web.

*SAFIR 2: Belgian R&D Programme on the Deep Disposal of High-level and Long-lived Radioactive Waste* (2003) – An International Peer Review

ISBN 92-64-18499-6

Free: paper or web.

**Order form on reverse side.**



OECD PUBLICATIONS, 2 rue André-Pascal, 75775 PARIS CEDEX 16  
Printed in France.