

7th edition of the International Summer School on Nuclear Decommissioning and Waste Management



UNIVERSITÀ
DEGLI STUDI
DI MILANO



Stakeholders' Engagement



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A great shift in societal expectation

The social dimension plays an increasing role and the technical field is now seen as responsive to societal concern, more than a pure technical domain



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Values enter into risk evaluation

What public is afraid of, reflects the common values more than the real knowledge.

Personal behaviours and attitudes, with respect to a risk, are the response to societal, political and cultural factors.

**The concept of risk involves
a judgement on values.**

“Risk is More than Just a Number”

W.F.Passchier, W.C.Rey. Risk Health, Safety & Environment ,1997.

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Values enter into risk evaluation

The **perception and acceptability** of the radiological risk from the public is context related and different reactions result from different uses of ionizing radiations.

No universally agreed level of acceptability of a risk related to technological field, for example **“How clean is clean enough ?”** in relation to a contaminated area.

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Towards participatory forms of governance



DAD

Decide
Announce
Defend

New forms of governance, are characterised by the involvement of a potentially wide range of stakeholders and the consequently abandon of the top-down expert-led approaches.

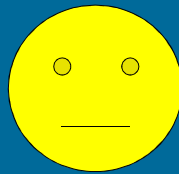
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Towards participatory forms of governance



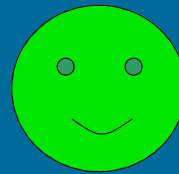
DAD

Decide
Announce
Defend



MUM

Meet
Understand
Modify



SON

Share
Open
Negoziate

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“Radiological protection must adapt to meet the needs of society and not the reverse.”

*First Villigen Workshop in 1998
The Societal Aspects of Decision Making in
Complex Radiological Situations*

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Processes of stakeholder participation

They do not represent **a threat** to an expert domain, but they are **an opportunity** for a better relationship between the field of RP and the wider society .

They allow decisions taken to be **robust** and **sustainable** and enjoying **wider acceptance**.

Public participation is a complex social process, often frustrating and time consuming, but a potent tool for good decisions and to overcome the contentious.

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IAEA NUCLEAR ENERGY SERIES No. NW-T-2.5

AN OVERVIEW OF STAKEHOLDER
INVOLVEMENT IN DECOMMISSIONING

INTERNATIONAL ATOMIC ENERGY AGENCY
VIENNA, 2009

“It is hoped that this report will **improve awareness**, amongst those who are about to become responsible for and involved in decommissioning projects, of **the range of issues which may be of concern to stakeholders** and approaches that have been used to reconcile them.”

A number of rights of the public are recognised with regard to the environment (Aarhus Conventions 1998)

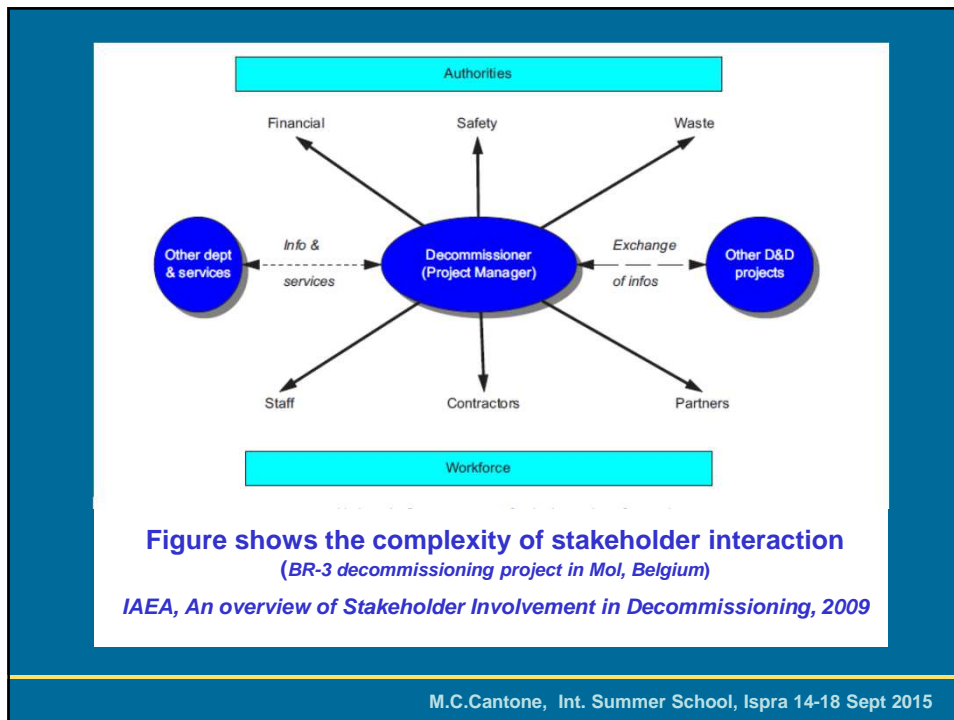
Public authorities, at the national, regional or local level, must contribute to allow these rights to become effective.

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Attention to the rights of the public (IAEA, 2009)

- The right of everyone to receive environmental information held by public authorities, including information on the state of the environment, on policies or measures taken, or on the state of human health and safety where this can be affected by the state of the environment. Public authorities are obliged to actively disseminate environmental information in their possession.
- The right to participate from an early stage in environmental decision making. Arrangements need to be made by public authorities to enable citizens and environmental organizations to comment on proposals for projects affecting the environment, or plans and programmes relating to the environment, with these comments taken into account in decisionmaking.
- The right to challenge, in a court of law, public decisions that have been made without respecting the two mentioned rights or environmental law in general.

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Which definition of a **STAKEHOLDER** ?

- one who has a **stake in something**, an event, a concern, etc. who has something **to gain or lose by**, or to have an interest in.
- individuals or organizations which may have **an interest in the results of an environmental decision** or be affected by that decision.
- *IAEA Handbook on Nuclear Law 2003* - stakeholders typically included :
 - the regulated industry or professionals;
 - scientific bodies;
 - governmental agencies, local, regional and national;
 - the media;
 - the public (individuals, community groups and interest groups);
 - and other States.
- OECD/NEA Forum on Stakeholder Confidence (FSC) - “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**.

Stakeholder risk perception

Different stakeholders have different interests with regard to nuclear activities (ND, RWM) but all stakeholders share an interest in protecting man and nature.

The great concern in the general public against nuclear installations, especially disposal facilities, seems to be based on mistrust in judgements of the authorities and only in part of the scientists.

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Stakeholder risk perception

Experiences in learning about perceptions have shown that risk perception of the layman is quite often dominated by:

- ★ little knowledge about nuclear energy;
- ★ severe accidents such as Chernobyl;
- ★ nuclear weapons;
- ★ the imperceptible nature of radioactivity:
it cannot be seen, smelt or touched.

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

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Which level of stakeholder involvement ?

Different levels of stakeholder participation involvement are offered by different techniques.

From simply transmit information to a passive audience, to an empowerment of stakeholders within the decision making process.

FSC confirms the need to clarify the level of involvement. It is important to be clear on what issues reasonably can be influenced.

NEA, Stakeholder Involvement Techniques, 2004

The basis for the decision must be clearly understood from the beginning of the process.

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Which potential effects of stakeholders ?

Bottom-up, inclusive approaches for information are likely to enhance the credibility of the decision-making processes.

Among the effects of this approaches:
substantive - concrete decision outcomes;
procedural - modifications to the process.

NEA, Stakeholder Involvement Techniques, 2004

In any case for appropriate stakeholders involvement, a process is needed and not a “one-off” or “add-on” approach.

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Is the choice of a technique for stakeholder involvement an art ?

No single method can attain a perfect score.

A number of different methods may be utilised as part of one decision-making procedure

(OECD/NEA 2002, Society and Nuclear Energy: Towards a Better Understanding)

Commonly used techniques include:

- Public hearings
- Consultative groups
- Round tables
- Scenario workshop
- Citizens' panels
- Focus groups
- Multi-actor policy workshops
- Citizen task
- Consensus conferences
- Local monitoring

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

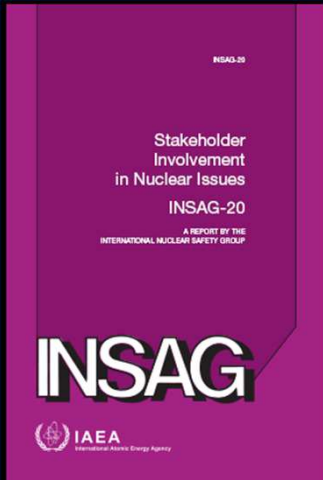
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Goals in stakeholder participation

Main societal goals are recognized :

- ★ incorporating public values into decision processes
- ★ increasing the quality of decisions
- ★ contributing to resolve conflicts among competing interests
- ★ building trust in institutions
- ★ educating and informing the public

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INSAG-20
Stakeholder
Involvement
in Nuclear Issues
INSAG-20
A REPORT BY THE
INTERNATIONAL NUCLEAR SAFETY GROUP

INSAG
IAEA
International Atomic Energy Agency

Internat. Nuclear SAfety Group

To promote open, transparent, timely, informative and easy understandable communications with society .

To suggest stakeholder communications as a contribution to the safe operation of nuclear facilities.

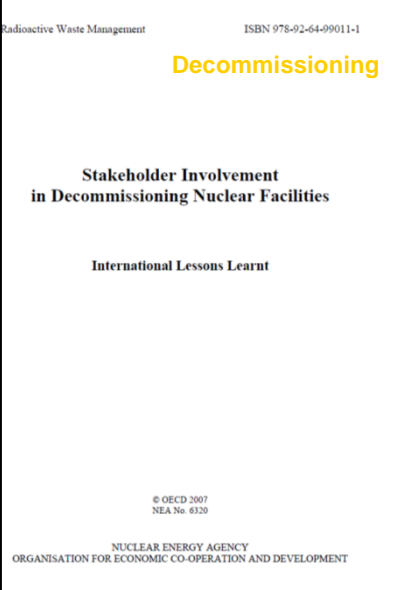
It is recommended that authorities establish procedures for interaction with stakeholders.

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Opportunities for stakeholder participation
(IAEA INSAG 20, 2006)

- ★ *Debate on the incorporation of nuclear energy in the national energy plan.*
- ★ *Decision to install a new NPP, or a waste repository.*
- ★ *Definition of the emergency plan.*
- ★ *Transport of radioactive material.*
- ★ *Dismantling and closure of nuclear installations.*
- ★ *Management of radioactive waste.*

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Radioactive Waste Management ISBN 978-92-64-99011-1

Decommissioning

**Stakeholder Involvement
in Decommissioning Nuclear Facilities**

International Lessons Learnt

© OECD 2007
NEA No. 6320

NUCLEAR ENERGY AGENCY
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

“The expectation that significant numbers of **nuclear power plants will reach the end of their operating lives** in the coming decade or so, or will be shut down **for economic or other reasons**, is resulting in increasing emphasis being given in member countries to the involvement of stakeholders in the associated decision procedures.”

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Stakeholder involvement in D&D

The need for public involvement **during the siting process for a new nuclear facility is well known**, while the role of stakeholders during the shutdown and decommissioning phases **is less well understood**.

Stakeholders have the right to be involved in the consequential decision about the strategy for decommissioning the shutdown plant typically through participation **in an environmental impact assessment process**.

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Stakeholder involvement in D&D

For successful D&D projects the suggestion is to implement the **3 Pillars of Trust**:

★ safety, ★ participation, ★ local development

Confidence in the D&D activities can be built through directly involvement.

Local and regional authorities are in charge of public information, facing local communities and media, and thus their participation is important .

D&D could result as a test on which the nuclear sector could be judged, not only on the technical quality but also on how well it is respected the participation and local development with stakeholders.

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Stakeholder involvement in RWM

A central concern of many stakeholders is to avoid irreversible decisions and actions, and they ask for an active control of a disposal facility.

Increasing attention is given to the concept of retrievability in recent years, which is considered important for public acceptance of a repository .

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Stakeholder involvement in RWM

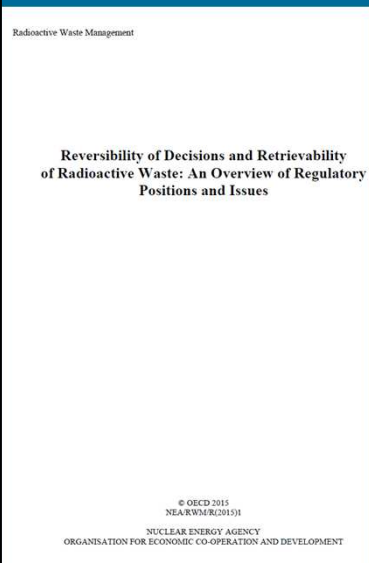
The experiences and perceptions on retrievability differ between countries.

In order to promote confidence in geologic disposal to a wide audience, it is necessary to openly discuss the pros and cons of longer-term monitoring, reversibility and retrievability.

See for example: **IGD-TP** European Technology Platforms – provide a framework for stakeholders to define research and development priorities and action plans. – a scientific and technical forum on geological repositories for high-level nuclear waste in Europe. <http://www.igdtp.eu/>
InSOTEC - Identify and clarify socio-technical challenges related to geological disposal, within their national contexts and within the international perspective - related to IGD-TP. <http://www.insotec.eu/>

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NEA report 5296 , 2004



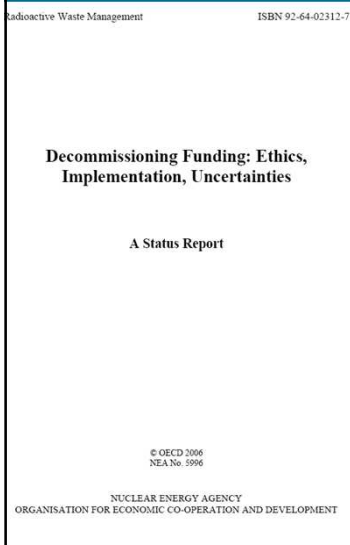
The discussion includes :

- ★ favourable conditions of issuing RWM policy,
- ★ design of the decision-making process,
- ★ social and ethical dimension,
- ★ local dimension of radioactive waste management,
- ★ stakeholder involvement,
- ★ trust in the actors.

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NEA report 5996 , 2006

Ethical principles in funding in case of relatively long time horizons.



- ★ Safety of current and future generations is the main concern of funding.
- ★ Avoiding imposition of undue burdens on future generations
- ★ Obligation to assemble and to preserve financial, technical and scientific resources.

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A chain of responsibilities

The principle of intergenerational continuity: the present generation must transfer resources and reasonable obligations to the succeeding generation, on the basis of equity and justice.

In an inflationary economy the management of funds over long timescales and the uncertainties associated with are also of concern.

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How long does such obligation last with the same level of responsibility ?

- ★ **The strong principle of justice**
(we behave considering that future generations are expected to have an equivalent quality of life as the present one)
- ★ **The weak principle of justice**
(we behave considering that future generations are expected to satisfy their basic needs)
- ★ **The minimal principle of justice**
(we don't jeopardise future generations possibilities for life)

The National Council for Nuclear Waste, an Advisory Body to Government, Sweden 2004.

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JRC SCIENCE AND POLICY REPORTS

Radioactive Waste Management Stakeholders Map in the European Union

Report May 2014

Meritelli Martelli & Gianluca Ferraro

2014

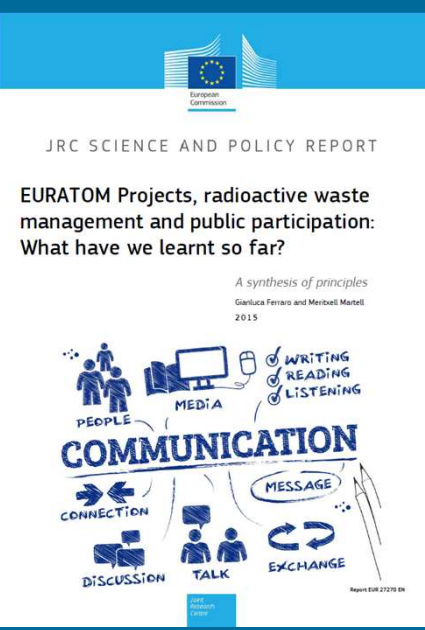
E-TRACK RADWASTE

“It is noted that categories of stakeholders and their roles and lines of responsibilities differ across countries. “

DG ENER and JRC launched an initiative Energy-Transparency Centre of Knowledge E-TRACK for the promotion of public participation in the implementation of energy policies.

.. an overview on the main actors in RWM systems in the EU 28 countries as well as the available facilities for radioactive waste management in each country.

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JRC SCIENCE AND POLICY REPORT

EURATOM Projects, radioactive waste management and public participation:
What have we learnt so far?

A synthesis of principles
Gianluca Ferraro and Meribell Martell
2015

PEOPLE MEDIA WRITING READING LISTENING
COMMUNICATION
CONNECTION MESSAGE DISCUSSION TALK EXCHANGE

JRC
Research
Centre

Report EUR 27270 EN

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“For many decades, RWM has commonly been addressed on the basis of a strong division between its technical and social dimension, with predominance of a technical focus. Only recently, the social dimension has been acknowledged by policy makers and other practitioners from government agencies and nuclear industry.

Recognising the sociotechnical nature of RWM might be a starting point for understanding the challenges ahead“

Final remarks

The impact of D&D and RWM clearly implies scientific risk analysis, but context considerations of societal, economical, juridical, and ethical nature are equally important.

Trust is crucial to loyalty and thus to the long-term safety of the projects.

Final remarks

New approaches are continuously experienced in decision making when choices implies value judgements.

As experience in stakeholder engagement grows, processes and tools are becoming established, can be generally applied, and they are instrumental in improving the quality of protection.

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Thank you for your attention

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Engaging with Stakeholders is an opportunity

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