



EUROPEAN
COMMISSION

Community research

DELIVERABLE (D-N°:5.2)

Interaction with stakeholders in the technical review in practice

Author(s):

**A. MRŠKOVÁ, T. HRNČÍŘ, DECOM
J. DEWOGHELAERE, Mutadis**

Reporting period: e.g. [01/01/2013 – 31/12/2013](#)

Date of issue of this report : [13/03/2014](#)

Start date of project : [01/01/2012](#)

Duration : [24](#) Months

Project co-funded by the European Commission under the Seventh Euratom Framework Programme for Nuclear Research & Training Activities (2007-2011)		
Dissemination Level		
PU	Public	X
RE	Restricted to a group specified by the partners of the SITEX project	
CO	Confidential, only for partners of the SITEX project	

SITEX



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2 Foreword

The objective of the FP7 program SITEX project coordinated by IRSN is to set up a network capable of harmonizing European approaches to technical expertise in geological repositories for radioactive waste. Lasting 24 months, SITEX brings together 15 organisations representing technical safety organisations (TSOs) and safety authorities, as well as civil society outreach specialists.

SITEX plans to help establishing the conditions required for developing a sustainable network of technical safety experts who have their own skills and analytical tools, independently of the operators, and who are capable of conducting their own research programs in coordination with research activities performed by operators. It is expected that this network will be able to provide technical support for regulators within corresponding decision making and licensing processes. Stakeholders involved in these processes could be another target group for expertise independent from the implementer of geological repositories. This type of support is an issue solved by the WP 5 of SITEX.

WPs of the SITEX are predominantly oriented to enlarge the expertise within the geological disposal safety (licensing) documentation reviewing processes, i.e. by establishing a network of competent and independent organizations providing the technical support for regulatory authorities.

The focus and position of the WP 5 within the project SITEX is slightly different. Its objective is to propose arrangements for interacting with stakeholders (general public) in the process of technical expertise and sharing, where needed, expertise approach with various stakeholders, in a manner more integrated than when only communication or dissemination is envisaged (e.g. by sharing expertise activity with volunteers). A specific aspect is to learn about the possibilities of the future expertise network to contribute in developing stakeholder's technical capabilities for ensuring this valuable and constructive interaction.

3 Summary

Overall objective of WP5 was to propose arrangements for interacting with stakeholders (general public) in the process of technical expertise and sharing, where needed, expertise approach with various stakeholders, in a manner more integrated than when only communication or dissemination is envisaged (e.g. by sharing expertise activity with volunteers).

In a first stage compilation study was prepared on recent approaches for stakeholders involvement mainly into any decision-making processes (deliverable D5.1 of SITEX).

This study altogether with results of other SITEX work packages served as a background for preparation of the SITEX European workshop, which aim was to discuss interaction with stakeholders in the technical review process, description of the possible ways and conditions to be met for allowing such implication in the framework of the Aarhus convention.

A specific aspect is to learn about the possibilities of the future expertise network to contribute in developing stakeholder's technical capabilities for ensuring this valuable and constructive interaction.

Compilation of past actions and learning of ways of interacting with stakeholders in the process of technical review was discussed in the workshop and it is reported in this report.

Since the 1990s, in the field of hazardous activities in general and in the nuclear field in particular, a general trend of evolution has developed in Europe towards reinforced information and participation of the public to decision-making processes and towards more inclusive governance frameworks. Several research projects have been performed regarding the COWAM European Research Program (2000-2009), the RISCUM or the IPPA projects.

This report presents the outcomes of the conclusions of the SENEK SITEX workshop discussions on interaction between civil society and expertise function with regards to three areas of the expertise function: along the decision making process, along safety case review and R&D processes. In addition, some recommendations for the future SITEX network interactions with civil society on European level are presented in the last sub-section.

4 Workshop organization

4.1 WORKSHOP FRAMEWORK

Intention of the SITEX European workshop was to group together partners of the project and various public stakeholders in order to exchange on the work of the project and to debate about conditions to be met for enabling transparent expertise.

The remainder of this document gives an overview of the main topics, discussions and findings of this SITEX European workshop.

With respect to SITEX project intention and especially WP5, goals of the SITEX workshop were set as follows:

1. Investigating case studies of Technical Experts interacting with Civil Society, discussing the purpose of engaging the public.
2. Presenting and discussing the SITEX findings regarding the definition of the expertise function and its activities.
3. Mapping the needs for the public to engage in the RWM decision-making process, Identifying opportunities for Civil Society & Technical Experts interactions.
4. Presenting and discussing the potential activities of the SITEX network for the future, Identifying further opportunities for SITEX to interact with Civil Society, Regulators and, where appropriate, with Waste Management Organizations.

4.2 WORKSHOP METHODOLOGY

Workshop was organized combining presentations and discussion activities.

To fulfil the goals of the workshop and to achieve fruitful discussion the agenda was divided into 3 sessions:

- Session 1 - Case studies presentations & discussions;
- Session 2 - Further developing interactions between civil society and experts in the context of RWM : discussing the SITEX proposals;
- Session 3 Developing a European network of expertise function as a sustainable entity, foreseen interactions with the civil society.

Each of the session consisted of presentation followed by discussion. Discussion were organised by various manners as it is described further.

4.3 PARTICIPANTS

It has to be noted, that participants were selected and invited very carefully keeping in mind their experience and ability to actively participate on discussion and bring some new ideas.

On the one hand representatives of presented cases were invited, keeping balance each case was represented by representatives of implementer, public and independent expert.

Further representatives of implementer - IGD-TP, on the one hand and on the other hand representatives of NGOs and civil society were invited, partners from parallel projects as InSOTEC and IPPA and some more experienced independent experts were as well as among 26 participants.

Unfortunately some participants refused from various reasons to participate but finally optimal balance between implementers, public and independent expert was achieved and atmosphere of the workshop was in general very friendly and calm.

4.4 SESSION I - CASE STUDIES PRESENTATIONS & DISCUSSIONS

4.4.1 Session content and methodology

During this session 3 case studies representing successful interaction between stakeholders and implementer in decision-making process were presented.

- The Asse citizen advisory group and expert advisory group process in Germany (*Anne Minhans, Markus Stacheder, Claus-Jürgen Schillmann*)
- The Group of Pluralistic Experts on the mining sites of uranium in Limousin, France (*Yves Marignac, Didier Gay*)
- The ARGONA Interaction Panel on "Siting and safety case" in the Czech Republic (*Hana Vojtechová*)

Presentations were followed by transversal discussion related to the particular case. Content of presentations and discussion is reported in Annex 2.

To achieve deeper, more particular and broader answers to prepared questions further discussion was organized behind 3 roundtables, each with 8 participants. Discussion were facilitated and reported.

Further, the session was dedicated to roundtable discussions in 3 parallel working groups, where participants were asked to distribute themselves in equal and balanced manner.

Discussions were self moderated by participants, but each group was hosted by experienced participant and notes were made from the discussion.

Working groups were asked to focus on discussion on the topics resulting from the 5.1 Deliverable and to answer following questions:

What is the purpose of engaging the public in the expertise function?

- Improving the quality of expertise?
- Taking on board the values of the public in the expertise?
- Raising the knowledge and capacities of the stakeholders from the public?
- Creating opportunities for concerned members of the public to develop their own expertise?
- Improving the RWM Safety?
- Developing long-term societal vigilance on RWM?

4.4.2 Synthesis and conclusions of Session I roundtable discussions

4.4.2.1 WHAT IS THE PURPOSE OF ENGAGING THE PUBLIC IN THE EXPERTISE FUNCTION?

A first question raised by this roundtable was whether the participants share a common understanding of the definition of expertise.

The definition of expertise used in SITEX is: “individuals and organisations involved in providing information into the decision-making process”. However, it was acknowledged that the term of “expert” covers at the same times different areas of expertise, different types of experts (academics, experts from TSOs, experts from civil society organisations) and different qualities of expertise (from scientific and technical expertise based on knowledge, experience, diplomas and peer recognition to topical and local knowledge based on the experience of life in a territory).

Different participants also discussed the definition of the “public”. The notion of “public” in the expertise function can be understood very broadly as “any lay person that is or potentially is interested in the issue at stake” or can be more restricted, e.g. to knowledgeable people.

After this discussion about the definition of an “expert” and of the “public”, the participants identified different purposes for engaging the public in the expertise function:

- Engagement of the public can contribute to modify the framing of the issue by incorporating new views, ideas and dimensions, in the formulation of the questions to which the expertise processes try to bring an answer. In this perspective, engagement of the public can be a means to bridge the decision-making processes and the corresponding expertise processes with the concerns of the public and bringing RWM issues in the context of people’s problems.
- It can also be a means to enable the public to channel new ideas and information pieces in the expertise process (e.g. by contributing by topical and local knowledge), thus contributing to the quality of expertise.
- Engagement of the public in expertise processes has also a stretching function (“there is a need for external people that question everything”) on the expertise process and the decision-making process.
- It can also be a means to improve the trustworthiness of the expertise process in the eyes of the public.
- It also can have a function of raising interest of the public and avoiding that public interest emerges only when it is too late for the public to influence the decisions.
- Engagement of the public in the expertise process is also a means to improve the sustainability of long-term vigilance on radioactive waste by enabling engagement and competence building of local actors in a position of vigilance over their territory, as well as of civil society actors
- Some participants suggested that the main function of the public was to work as a watchdog – essentially watching and bringing only few proposals.

- Different participants underlined that representativity was not a purpose when considering the engagement of the public in the expertise function.
- Finally, some participants considered public engagement in the expertise process as a means to smooth the decision-making process by avoiding polarisation, taking into account political dimensions and finding balance between pros and cons of public ideas.

Participants stressed that complexity of RWM issues and engagement of local actors and civil society actors (at the local and the national level) are interrelated. On the one hand, facilitating public engagement in the decision-making process is a mean to address complexity of issues by taking on board a plurality of dimensions of RWM issues (e.g. local socio-economic development, vigilance on possible health and environmental impacts, incorporation of local knowledge in the process, ...) that has to be addressed in a robust decision-making process. On the other hand, for institutional actors, engaging with civil society actors moves the decision-making perspective from an unidirectional perspective (decide and explain) to a process of mutual experimentation and co-evolution between the institutional actors and civil society actors, in which the issues at stake are reframed and the roles and relationships of actors and the governance framework evolve as a result of interactions.

4.4.2.2 HOW TO IMPROVE THE QUALITY OF EXPERTISE?

Three different conditions for improving the quality of expertise were identified by the participants:

- Mutual understanding: experts must understand the public and be able to ask the right questions. This means in particular that experts should be able to establish meaningful links between the concerns of the public and the questions posed to expertise by the decision-makers. This also means that the expertise processes should be open to reframing of the questions posed to the experts in order to incorporate views, perspectives and concerns of the public.
- Trustworthiness: conditions of trust of the public in the expertise process do not rely only on the competence of the experts. Factors like the position of experts, their possible proximity to some stakeholders (e.g. implementers or civil society actors), the plurality (or absence of plurality) of experts engaged in the expertise process, are also of key importance for trustworthiness of the expertise process.
- Innovation: the public may bring new dimensions or information in the expertise process. Ordinary people can bring “local expertise” (based on their life in the area). Moreover, as they envision all possible dimensions of life on the territory impacted by RWM issues, local actors are able to help envisioning the complexity of the problems on site. Some participants noted that expertise processes incorporating information and views from the public have the advantage of bringing new details but at the cost of more time and resources. Finally, participants stressed that institutional experts (regulator) should decide what ideas go against safety.

4.4.2.3 HOW TO TAKE ON BOARD THE VALUES OF THE PUBLIC IN THE EXPERTISE?

The participants discussed different examples of valuable issues raised with the public regarding information on radiation in daily life:

- In the framework of the ETHOS project in Chernobyl-contaminated Belarus (1996-1999), a team of experts worked with villagers to improve practical radiation protection in daily life. This enabled identifying that the use of fertilising the gardens by ashes from the stoves may result in concentration of contamination in gardens. Even if the impact in terms of doses was low, it was very important for villagers to stop this practice in the perspective of passing cleaner gardens to future generations.
- In France, the surveillance of the closed uranium mines led to the creation of a Pluralistic Expertise Group (GEP Mines) with a mission to build a critical assessment of the technical documents related to the surveillance of old uranium mining sites and inform local actors and the public. This group was set up in 2006 in a context of controversies about the health and environment impacts of these mining sites. The GEP Mines gathered experts from public institutions (TSOs, universities), State administrations in charge of environmental protection, mining and nuclear safety, members of NGOs, representatives of the operator of the mines and foreign experts. This enabled tackling issues of health and environment protection raised by local actors.
- Participants also mentioned an experience of cooperation with a Fishermen's Association to acquire data about local habits of fishermen in Slovenia.

The participants stressed that it is important to take on board a variety of views in the expertise process in order to tackle the issues and concerns raised by civil society and local actors. Here, the competence and skills of the experts are as important as their situation vis-à-vis the different stakeholders (proximity with some of the stakeholders, diversity of views as regards controversial points, ...).

It was also raised that, from the point of view of local actors, it is important to have face-to-face interactions and personal contacts with the experts. However, experts, notably from TSOs noted that this could be uneasy for the experts and require from their part training and experience.

Variety of views in the expertise process and face-to-face interactions are notably conditions for defining common questions that are relevant for the different stakeholders and can be tackled by the means of an expertise process.

The participants also stressed that reflexivity is a key condition for taking on board the values of the public in the expertise process. In effect, as the expertise process unfolds, the views of the public can evolve (either spontaneously or as a result of the expertise process). Feedback loops are thus necessary to ensure that the expertise process is still in line with the concerns of the public.

In order for the expertise process to be trustworthy in the eyes of the public, it is also necessary to feed back to the stakeholders and the public not only knowledge produced but also the perimeter of uncertainty that has been identified. In pluralistic expertise processes,

it is also necessary to report not only the points that are subject of consensus between the different types of experts but also the point of disagreements or of divergent interpretation.

Finally, the participants have identified three questions to address in the design and implementation of an expertise process:

- Do the different stakeholders (and in particular the different experts in a pluralistic expertise process) have an equal access to data? And how is this equal access granted?
- How to connect expertise processes to values and expectations of the public?
- How to feedback meaningful results to the public?

4.4.2.4 HOW TO RAISE THE KNOWLEDGE AND CAPACITIES OF THE STAKEHOLDERS FROM THE PUBLIC?

Access to knowledge and expertise capacities is a necessary condition for civil society actors to engage in decision-making processes and into related expertise processes. TSOs can play a key role in facilitating this access of civil society to knowledge, skills and expertise.

Although a certain basic level of knowledge is necessary to build dialogue on issues like RWM encompassing technical dimensions, access to this basic knowledge is not enough (and training of civil society actors is only one aspect in the raising of knowledge and capacities of civil society actors). Participants stressed that this action of capacity building should be seen as a steady process of empowerment of civil society in which civil society actors raise and consolidate their knowledge and their capacity to interact with expertise processes (though not forcedly becoming experts themselves). It is a process of continuous experimentation of interactions between experts and civil society, of mutual adaptation of the roles of civil society actors and experts and other actors (e.g. regulator or operator), in which goodwill is needed on both sides. These interactions can take place at the local, regional, national or European level.

Progressing in this process of experimentation notably necessitates for decision-makers (notably operators and regulators) to consider interactions with the public not only as an information process or a way to gain acceptance of already prepared decisions to a joint framing of decisions in which civil society actually influences the decision-making process. A key issue for TSOs is then to create regular opportunities for concerned members of the public to develop their own expertise and interact with experts and other actors. However, it is only possible to create opportunities for civil society to engage, not to decree the engagement.

Funding and safe meeting places are necessary, as well as independent organisations to organise the interactions in order to bring credibility to the interaction process. However, some participants noticed that there is an irreducible discrepancy of resources between civil society actors and institutional actors in terms of time and expertise. If some arrangements can contribute to the reduce this discrepancy (support from independent experts and TSOs for facilitating access to expertise, funding of travel costs for civil society actors...), civil

society actors will always remain in a position of David versus Goliath when interacting with resourced organisations like operators or regulators.

Finally, some participants raised the issue of the situation and origins of actors facilitating capacity building of local actors, as people from the area affected by a possible RWM project may not want to accept any advice from people living outside.

4.4.2.5 HOW TO IMPROVE THE RWM SAFETY?

Participants recognised that public involvement is a means to improve the decision-making process and enhance the safety, as the public can bring a contribution to the safety or security of a RWM site by e.g.

- Adding local knowledge of the territory to the knowledge basis that grounds safety
- Contributing to the quality of surveillance by exerting long-term (intergenerational) vigilance over the RWM activities and their potential impact. This vigilance is complementary to institutional surveillance.
- Participating to the conservation of memory of the RWM activities and sites.
- Challenging the arguments of the operator and regulator, thus playing a role of stretching of the decision-making process.

When considering a long-term perspective, civil society and in particular local actors can contribute to the robustness of the surveillance of a RWM site. In effect, continuity of institutions is not guaranteed over periods larger than a few decades. A local community continuously exerting vigilance is a factor of stretching the institutions as local actors can also exert vigilance over the continuity of the surveillance system (at least the continuity of the functions exerted by this system rather than the continuity of the institutions that are part of this system).

Some organisations, like local commissions, can help structuring and supporting the contribution of civil society to safety. They can also be a tool for keeping awareness of the local community, by informing the public on a regular basis from a community point of view that is different than the one of the regulator or of the operator.

Finally, the participants also made the following general comments at the end of this session:

- People need to see benefits as well as from their engagement and development.
- Institutional actors have to be clear about the rationales for facilitating engagement of civil society actors.

4.5 SESSION II

4.5.1 Session II methodology

Authorised World cafe method [1] was selected for Session 2, as it is a simple, effective, and flexible format for hosting large group dialogue. As the aim of this session was to discuss on 3 SITEX work packages and further network, it was not possible to have global discussion. Methodology of World cafe was a bit adapted to the particular goal of the workshop - to have discussion on 4 various topics on one hand, but on the other hand to obtain opinions of every participants to each topic in short time. For this reason 4 cafe tables were prepared, each with particular topic and the SITEX work package leader as a host behind the table. The role of the host was to present the topic of the table and results of previous discussion as well as make a note from discussion in form of mind map. Participants circulated around 4 tables in 30-minute intervals and discussed the topic of the table. Mind map was selected as simple and creative support to evaluate discussion and keep its focus on the important topic (See Annex 3). Finally results of 2 hours discussions were presented in common session. More photos and presentations can be found on the SITEX project web page [2].

4.5.2 Roundtable I – expertise function – hosted by Christophe Serres (IRSN)

The first roundtable was addressing the expertise function through 4 topics:

- What does expertise function means?
- How do participants understand transparency
- What are the conditions for independency of expertise
- What are the conditions for competence of expertise

At first, the participants to the roundtable acknowledged that more robust decision-making processes are desired. A possible means for this, as identified by the participants, is the introduction of “checkpoints” in the decision-making process. These “checkpoints” play a double role:

- Regularly checking that the public is properly protected
- Enabling at regular occasions the participation of the public in the decision-making process. The discussion left a question open in this regards: how and whom to choose as participants from the public.

As regards transparency, the participants noted that decision-making processes should give the public access to information in conformity with the requirements of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. This includes an open approach from the decision-makers and an acknowledgement of what is known and what is not known at a particular step of the decision-making process, as radioactive waste managements is marked by uncertainties (notably considering the large time scales which are at stake). Ensuring access to information also includes the identification of the pros and cons of a particular solution. Finally, the participants stressed that the decision-making process should be defined clearly (who is involved, when and how, how to take into account the results of public participation, ...).

As regards independency of expertise, some participants stressed that, ideally, the expertise function should be independent from both the operator of RWM and the regulator. However, it was acknowledged that there are not totally independent experts but rather different levels of dependency, which can evolve through time. This raised the issue of the criteria for independency. Independency can be considered as a characteristic of the expert himself (leading to criteria and processes aimed at checking of the dependency links of the expert) or as a characteristic of his actions and mentality (thus leading to criteria, processes and tools for checking that the expert acted independently). Taking this into account, it is important that the experts are clear about their positions and situation, their actions, their dependencies and the funding of expertise. There is also a need to determine what level of dependency is acceptable for the public. Finally, participants identified plurality of views and expertise sources as a means to reinforce the trustworthiness and independency of expertise processes. Independency of experts was also linked in the discussions to the notion of whistleblower: expertise processes performed with a sufficient degree of independence should be able to listen to whistleblowers. Finally, the participants raised the issue of the conditions and means to secure whistleblower in the European Union. Some suggested that European legislations could bring a contribution to this point.

As regards competence of expertise, the participants stressed that competence is not only related to the scientific and technical capacity of experts in their field of expertise. It also relates to the capacity of experts, individually and together, to identify and address complex problems through a holistic approach and be open to new ideas and areas of work (even not comfortable ones).

The issue of proximity between experts or expertise processes and the public was also raised. It relates both to the way expertise processes collect information and to how they feed information and communicate with the public. Some participants stressed that improvements of the interactions with the NGOs can lead to forget the communication with the public at large. Conversely, the engagement of NGOs and other civil society actors (including experts from or in close connection to civil society) can help feeding back information to the general public in a relevant way.

Finally, some participants noticed that there is still little interest of decision-makers and politicians in general in involving the public in decision-making. They also regretted that propositions for involving the public are sometimes identical to the views and proposals that existed 30 years ago, thus showing that, in some contexts, few lessons were learnt from the experience of interactions with the public.

4.5.3 Roundtable II - Decision Making Process (WP2) - hosted by Frederic Bernier (FANC)

The first roundtable was addressing the role of civil society in decision-making processes through the following questions:

- At what time and at what stage should civil society enter the decision making process?

- On what level of governance (local, national, European) should civil society interact with decision making process
- How to ensure a mutual understanding between the regulatory & expertise functions and the civil society?
 - What are the necessary conditions to build this mutual understanding?
 - Would documents or dialogue processes, aimed at facilitating the interpretation and understanding of safety requirements guiding the development of repositories, foster mutual understanding and involvement of the public society?
- What would be the most suitable way(s) of identifying the needs of the public society?
- If yes, what topics would need to be treated in priority?
- What are the needs for harmonization from stakeholder's point of view?

As regards the timing of interactions with civil society, the discussion showed that developments are needed on clear identification of how and when to enter the decision making process. Stakeholder's expectation is to take part of decision making even before the conceptual phase, when energy strategy is prepared. Asking civil society to cooperate only on the final stage of the nuclear energy cycle - waste and spent fuel management - without discussion on the activity that produced the waste is not acceptable anymore. Interactions with civil society should take place at any stage that is required by the public.

The following moments and procedures in decision-making processes concerning nuclear energy were identified by the participants as opportunities to organise effective interactions with civil society and taking into account civil society views earlier than the RWM facility conception phase:

- The conception of the energy strategy and the SEA procedure
- The new build of nuclear facilities and the EIA procedure
- PLEX EIA (prescribed under ESPOO)
- Decommissioning of nuclear facilities
- Choice of the general options of waste management (what to do with the waste)

Looking for the most suitable ways for civil society and experts interaction three scopes were identified:

- Dialogue between Implementer and civil society - oriented on information and action toward waste management strategies implementation;
- Technical dialogue between Expert function and Society with various level from clarifying of technical issues up to interaction with civil society on development of safety case;
- Particular dialogue with regulatory function is focused on licensing process and regulatory decision, on nuclear safety issues.

Participants underlined that there is a need to develop suitable communication and participation tools enabling local actors and civil society actors to engage into technical

issues. In particular, processes of interaction with civil society should give sufficient time or local actors and civil society actors to develop their skills and competences and give them access to expertise resources necessary to address their own concerns and address the justification of choices. These processes should also constitute open spaces creating conditions for genuine interactions and discussions rather than polarised discussions focused on the defence of or opposition to predetermined options or technical concepts.

Notably, the participants identified peer reviews as a good opportunity for civil society to engage. Finally, the participants also acknowledged the existence of a structured mobilisation of civil society at the European level through the European NGO Nuclear Transparency Watch (NTW) and stressed that this initiative can also provide a suitable platform for interactions between institutional actors and civil society. This NGO gathers civil society actors and elected representative having different views on nuclear energy but sharing the urge for transparency in the decisions regarding nuclear energy in Europe. Inspired by the model of Finance Watch in the financial sector, NTW ambitions to constitute an expertise resource for civil society at the European level in order to facilitate the engagement of civil society in nuclear issues and provide European decision-makers with expertise and informed views from civil society in order to complement the expertise of institutional actors and nuclear operators.

The participants stressed that mutual understanding is required to guarantee continuous dialogue between civil society and expert function. If there is no common understanding of fundamental issues, it is not possible to discuss more specific aspects like siting; therefore understanding has to be a goal behind any interaction. It has to be as well accepted, that it is nonsense to initiate discussion with civil society on decisions taken 10 years before. But again, having in mind for future decisions, we have to learn from previous failures.

This mutual understanding should notably be built on fundamental aspects like decision processes (what is the decision processes, its different steps, what are the opportunities for civil society to influence the decision-making process, ...), standards (rationales for the choice of existing standards, technical aspects, issues and dimensions implicitly or explicitly encompassed in the choice of standards, ...) and the safety principles and requirements.

Mutual understanding should notably be built about the expertise that serves as a ground for public decision-making, notably the outcomes of R&D programmes informing the decisions of the decision-makers (including the limits of these results and the perimeter of uncertainty that still exists) and the basis of the safety case (safety strategy adopted by the implementer and safety concept). One of the key conditions for this mutual understanding to be built is the access of civil society to the documents (in conditions that do not de facto impede or strongly restrict the capacity of civil society to exploit these documents).

Key conditions for the regulatory body to gain trust of civil society are: transparency, competence, openness, listening and responding (notably by explaining how interactions with civil society are taken into account in the decision-making process).

The participants finally addressed the issue of intergenerational management of civil society interactions. They stressed that, as waste management and especially waste disposal is questions of many generations, this topic strongly influence long-term decision-making. A

certain level of flexibility to come back on previous decision is needed. But there is lot of question without answer concerning intergenerational management, e.g.

- What if conflict between generation positions?
- How to guarantee continuity in decisions direction across generations?
- What is to be done in case of major change?
 - Implementer need to study the impact of the change on the conclusions of the safety case
 - Regulatory body's experts need to communicate on the outcomes of the updated safety case review

As a conclusion, the participants noticed that there is a wealth of historical experiences in Europe in the field of interaction with civil society at all governance levels. In the views of the participants, this experience should be researched to draw its key lessons and applied.

4.5.4 Roundtable III - Safety Case Review (WP4) - hosted by Muriel Rocher

The discussion on safety case review was structured by three questions:

- **How and what stakeholders can enter a review process?**
- **At what time or what stage safety case review should civil society enter the process?**
- **Is there any example of interaction in review process?**

The participants acknowledged that, as interactions with civil society are necessary in the RWM decision-making process, it is in particular the case for the process of reviewing the safety case. The participants addressed different topics that should be answered more thoroughly in further developments of the reflection on the safety case review processes:

- What is the aim of interactions? For the participants to the workshop, participation of civil society actors in the safety case review should first aim at defining the rules and identifying the limitations of the process. Interactions with civil society should also enable discussing the requirements and principles that ground the safety case (e.g. to open safety IAEA principles to public). These interactions should also enable to clarify uncertainties that are associated to the safety case. Finally, interactions with civil society are also a way to build mutual confidence and respect between institutional actors and civil society actors through credible and understandable dialogue.
- Why should experts interact with civil society in the safety case review process? The participants underlined that interactions with civil society in the safety case review process is a means to broaden the aspects and issues taken into account in the safety case, while at the same time addressing the concerns of the public. For some participants, interactions with civil society are also a means to avoid or minimise the crystallisation of blocking issues. In this perspective, early interactions with civil society can enable identifying possible conflicts in the beginning of the process – thus

leaving time and margins of manoeuvre for addressing them – rather than at the end of the process, when time and means are lacking to address these conflicts.

- Who should be included in the interactions? In the perspective of the Aarhus Convention, any actor who wants to participate in the decision-making process on an environmental issue (including RWM) should be enabled to do so. The participants identified particular categories of actors that should be paid particular attention in the process of safety case review:
 - actors having specific knowledge (e.g. non-institutional experts or actors with particular knowledge about the territory and local community);
 - people affected by the proposed RWM design and arrangements;
 - experts, notably experts from civil society (but also other experts e.g. academic experts who do not belong to the operator or to TSOs). The issue here is not to achieve “representativity” of the experts engaged in the safety case review process or guarantee the independence of experts but rather to achieve sufficient plurality in order that a wide range of expertise and views could reinforce the robustness of the review process. Issue of experts independence was emphasized by participants again.
 - While discussing the role of the Government or political actors in the safety case review process, the participants agreed on the views that their role was not to engage in the review process but rather to fund the expertise process – including funding of the engagement of non-institutional experts.
- When should interaction be initiated? The participants stressed that the interactions process should start as early as possible, from the conceptualisation phase (similar to the scoping phase in Environmental Impact Assessment procedures). Discussion should then continue on a regular basis, as the safety case is an evolving document.
- How to start and organise interactions? The participants stressed that the interaction process should be well structured with regular meeting points, sufficient funding and experience feedback enabling to adjust the process in light of experience (thus introducing reflexivity in the process). Mutual respect between the different experts and non-expert actors engaged and agreement on the knowledge basis used were quality factors identified by the participants. The participants to the workshop also underlined that the issues to be discussed should be adapted to the level at which the discussion takes place (e.g. European level for issues like EU legislation, national level for SEA-related issues, Project level for EIA-related issues) and to the moment in the decision-making process (e.g. technology selection, site characterisation, ...)

Finally, participants identified some challenges that should be kept in mind while starting interaction between civil society and expertise function in the safety case review process (these challenges are not specific to the safety case review process and arise in any interaction process):

- Definition of problematic issues (some issues have never been on the table)
- Determination of the goals of each participant

- Organization and moderation issues
- Funding of the whole process (and its different steps)
- Defining the criteria of pluralism and/or independence in a pluralistic expert group
- Intergenerational safety, in particular the issue of continuity of institutions and of the memory of information

4.5.5 Roundtable IV -Research and development (WP3) - hosted by Václava Havlová

The discussion on safety case review was structured by three questions:

- What does civil society expect from experts in the research area (level of scientific knowledge? Level of communication the knowledge)? What is expected from public experts and from experts with a public status? How to build and keep confidence of civil society to experts?
- What does the civil society considers as “independency” Must TSO be completely independent from WMO (independency versus isolation)? How to cover all scientific needs that arises from safety assessment review to be independent? How does civil society considers interaction and joint actions with Waste Management Organisation (WMOs) and other R&D bodies?, Sharing knowledge, tools and installation?
- European governance of research (IGD-TP)
- What are the expectations for transfer of scientific knowledge and information towards civil society? How to keep precision and “update” of scientific information being sent towards SC?

The discussions with the participants led to the following conclusions:

- Public does not expect from experts to deeply understand everything. People generally require to distinguish what is known and what is unknown, to quantify risks and to describe uncertainties.
- People wish to have difficult topics translated and explained in a simple form (a participant from civil society thus stated: “You are the expert; we do not understand all details provided in scientific language. You have to adapt the language so that it is understandable for us”).
- Sharing of resources is an important issue of international co-operation in deep geological repository development.
- It is needed to clarify, what is understood and accepted as “independency of expert”. It is difficult for most of scientists to be independent because of “mainstream” opinions.
- All questions from the public must be addressed as serious and important.
- People want to see public money spent wisely. We have to develop system on national/international level to involve people and govern all the system adequately. At the moment within the EU we do not have a system of public control where the money goes. People know that their money are spent but have no influence how to spend it. Some participants suggested that, for this purpose, the European Council could create a citizen council.
- Independent reviews should be financed by different sources of funding, like research itself.

The participants also identified new questions to answer:

- What is better – resort to cooperation with dependent expert with high expertise, or independent one but with less experience? - It is not only a question of independence but also a question of confidence. In real life we have many times problem with limited financial resources, people, time etc.
- How to manage sometimes-conflicting requirement of competence and independence. Even if being brilliant researcher, can they be independent?
- Can be contradictory topics raised?
- How to guarantee a sufficient level of independency of experts in the particular context of post-communist countries, where still political influence on reviewers can be very strong?

4.6 SESSION III

The last session of the workshop was dedicated to presentation of future plans for SITEX network with very short concluding discussion.

4.6.1 Survey on governance of European Technology Platforms in the nuclear field

A survey on governance of European Technology Platforms in the nuclear field (see annex 4) was presented with aim to investigate opportunities for interactions between expertise functions and civil society in the context of European research on radioactive waste management. In its conclusions, the survey identified different challenges for European research in the field of RWM, which are presented below.

A first challenge is related to the organisation of interactions between TSOs, regulators and operators in the field of RWM research. In effect, as shown in the presentation, the new research framework programme, Horizon 2020 clearly calls for balanced cooperation between all stakeholders for a given technology. Within this framework programme, the “Innovation Union” calls for “pursuing a broad concept of innovation”. In the field of RWM, how does this broad notion of innovation (including social innovation) could be put into practice in the field of RWM? And what will be the consequences on research?

In the RWM field, DG Energy has expressed a strong concern in preserving the independence of regulators required by the RWM European directive. In effect, according to art. 6.2 of the RWM Directive, regulators should be strictly independent from “any other body or organisation concerned [...] with the management of spent fuel and radioactive waste, in order to ensure effective independence from undue influence on its regulatory function.”

As regards cooperation between TSOs and RWM operators, the question of the conditions under which TSOs could develop common research activities with RWM operators is open. In the field of European R&D on Gen II and III nuclear reactors, NUGENIA is an example of a structure seeking for balanced cooperation between TSOs and nuclear power plant

operators¹, with a balance of power between these two categories of actors in the governance structure of the NUGENIA association. Is the same type of cooperation possible in the field of RWM and at what conditions?

The survey also enabled to draw lessons from the analysed European technology platforms as regards the engagement of civil society in European RWM research. This field of research is marked by an increasing importance of the European level, in particular through European technology platforms and future European public-private partnerships, while EURATOM 202 calls for participation of civil society in EU research. However, the experience of European technology platforms in the nuclear field shows that it is difficult for civil society organisations to participate in research activities at the European level through traditional processes of public consultation on documents, through exchange forums or through direct participation to the activities of European technology platforms (for instance, the temporary participation of Greenpeace to IGD-TP as a member of the platform). Civil society stakeholder fatigue can be observed in this context: taking part to the activities of European technology platforms appears as unproductive spending of time and resources from the point of view of civil society organisations. The analysis of the shortcomings of civil society participation to European research in RWM through IGD-TP activities demonstrate the need for a robust framework for cooperation with civil society enabling:

- Clarity on possible roles and contribution of civil society actors
- Preservation of the identity of CSOs and other actors
- Implementation of the Aarhus Convention (information, participation, justice)
- Adequate support to CSOs engagement in European research

In this context, a future SITEX network appears as an opportunity for better liaison between research on RWM and civil society stakeholders. In effect, participation of civil society organisations (CSOs) in European research raises not only questions about resources, but also questions about the access of CSOs to expertise on highly technical issues in RWM research. European structuring of public expertise function as developed in SITEX can then represent an opportunity for cooperation between TSOs and civil society at the European level as the SITEX network can play an empowerment role for CSOs in RWM research. In particular, the future SITEX network can help CSOs to access expert support in order to

- Build and refine autonomous understanding of the stakes for civil society embedded in European research on RWM – including in the future Preparatory Phase
- Identify opportunities to make these stakes duly taken into account (in the meaning of the Aarhus convention) into European research on RWM
- Initiate participatory research actions with social and technical experts
- Influence European research governance frameworks in order to ensure their inclusiveness

¹ According to its statutes, NUGENIA's purpose is to "advance the safe, reliable and efficient operation of the nuclear power plants by facilitating the cooperation among its members" (which include TSOS and NPP operators)

4.6.2 SITEX functions and opportunities for cooperation

Finally SITEX functions and proposal for opportunities of interactions under SITEX project were presented as it will be reported in Deliverables 6.1 and 6.2 of the SITEX project.

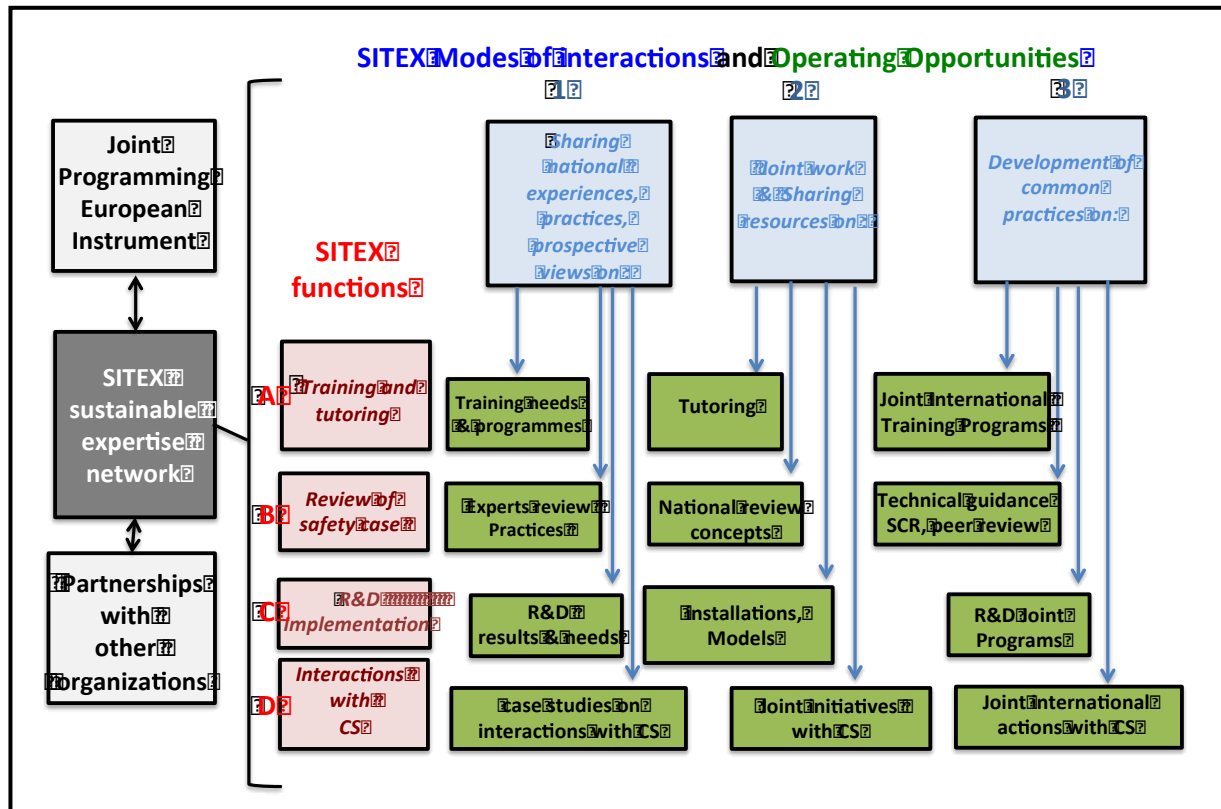


Figure 1: Framework of SITEX network

5 Outcomes of potential interventions of civil society along DMP

In the nuclear field, the relationships between expert organisations, in particular technical support organisations (TSOs), and civil society appears of key importance for developing access of the public to information and participation of the public to decision-making processes. Various processes of interaction between experts and civil society have thus developed in Europe since the mid-1990's, involving different types of experts: institutional experts (TSOs), civil society experts, independent experts (university, foreign experts not engaged in the national context...).

Several cases studies have been performed by the SITEX project (see deliverable D5.1 of the SITEX Project) on the interactions between the civil society and the experts in the context of nuclear safety. Four different types of outcomes have been identified as a result of those interactions: the improvement of expertise, the improvement of decision-making, the competence building and the access of civil society actors to reliable and relevant information. This preliminary investigations will have to be further completed in the future in order to develop a more in depth understanding of the conditions and means of a common safety culture between the experts and the civil society and a more detailed characterisation of the (actual and potential) contribution of those interaction to the safety of radioactive waste management.

5.1 IMPROVEMENT OF EXPERTISE

As regards the improvement of expertise, the interaction processes have led in different cases to some kind of improvement of the quality of the expertise process and its results (e.g. better definition of reference groups of exposure scenario taking into account local ways of life). This includes development of new processes and methods for performing expertise with local actors and civil society taking on board the priority and concerns of the civil society. Interactions between experts and civil society also improved reliability of the results of the expertise process, in particular in the cases where experts of various backgrounds (and different views vis-à-vis the considered technologies) are involved in the expertise process.

5.2 IMPROVEMENT OF DECISION-MAKING

As regards improvement of decision-making, the interaction between experts, decision-takers and civil society has led in different cases to improve the quality and reliability of the decision-making process. This includes identification of commonly agreed solution between civil society, local actors and decision-makers but also adaptation of the decision-making process to allow the different stakeholders to contribute to the quality of decisions. This also includes the development of mutual understanding between experts and decision-makers on the one hand and local actors and civil society actors on the other hand, notably the development of a common language between the different involved categories of stakeholders.

5.3 COMPETENCE BUILDING

The considered interactions between experts and civil society have also contributed to reinforce the skills of the considered actors. On the one hand, local actors and civil society actors have developed their capacity to address technical issues according to their priorities, in the perspective of a continuous involvement along the decision making process. On the other hand, TSOs and experts have developed their capacity to interact in a relevant and fruitful way with local actors and civil society and to take advantage of those interactions to improve the quality and relevance of their expertise (and for instance introduce new issues in the scope of the expertise or reframe certain issues according to the concerns of the civil society (e.g. for instance while implementing the concept of reversibility as a result of societal influence on the decision-making process). It is also noted that the civil society can contribute to maintain on the R&D agenda issues related to geological disposal safety that would not otherwise be addressed by the institutional players.

5.4 ACCESS OF CIVIL SOCIETY ACTORS TO INFORMATION

These interaction processes have most often resulted in a better access of local actors and civil society actors to relevant information according to their questions and needs. In particular, the work of “technical mediation” (mediation between civil society and institutional experts) carried out by non-institutional experts (from NGOs or other institutions having some proximity with the civil society) appears in particular as a key factor for fostering effective access of civil society to information on issues involving a high degree of technicality, such as radioactive waste management.

5.5 CONTRIBUTION TO A LONGER-TERM EVOLUTION OF GOVERNANCE: INTERACTION PROCESSES AS “CHANGE INCUBATORS”

Taking a step back and looking beyond the strict scope of the various complex interaction processes, we can see that they almost all fit in a longer-term process of evolution of the governance of radioactive waste management (and also of nuclear activities in general) towards a greater openness to different stakeholders, especially civil society². This process is a long-term process of co-evolution between expert bodies and civil society.

In this process of co-evolution over a long time, the interaction processes between experts and civil society, limited in time, space and in the scope of considered issues, can be considered as “change incubators”. Indeed, they open, usually off the usual system of governance, a bounded space where the different actors (especially civil society actors and TSO) can safely experiment with new types of interactions and enter in a process of collective learning. Should favourable conditions be met, the improved mutual understanding of actors, the experimentation of new roles and the new formulation of issues resulting from the interactions may contribute to changes in longer-term relationships

² [Constructive democracy and governance of technology](#): The conditions of democratic governance in a complex technical and social process: the example of the European project Cowam-in-Practice in the management of radioactive waste, Sylvain Lavelle, Gilles Hériard-Dubreuil, Serge Gadbois Claire Mays and Thierry Schneider - Governance Review (Canada) - Winter 2010 (Vol.7, No. 2)

and mutual positions of the actors. These contribute to a process of longer-term evolution of the radioactive waste management governance (and, more generally, nuclear activities).

The expertise function contribute to this process of co-evolution in different ways, including:

- Supporting the engagement of civil society actors and strengthening their skills in the framework of interaction processes (foreseen in the legal or regulatory framework), or initiating themselves such (pilot) processes.
- Adapting their culture and practices to accommodate the active contributions of civil society as an added value to the quality of safety, expertise and decisions.
- Directly supporting an autonomous, continuous and long-term process in which civil society develops skills, capacity to engage in issues of public interest, networking capacities.

The potential contribution of civil society to this process can be summarized by the following Figure:

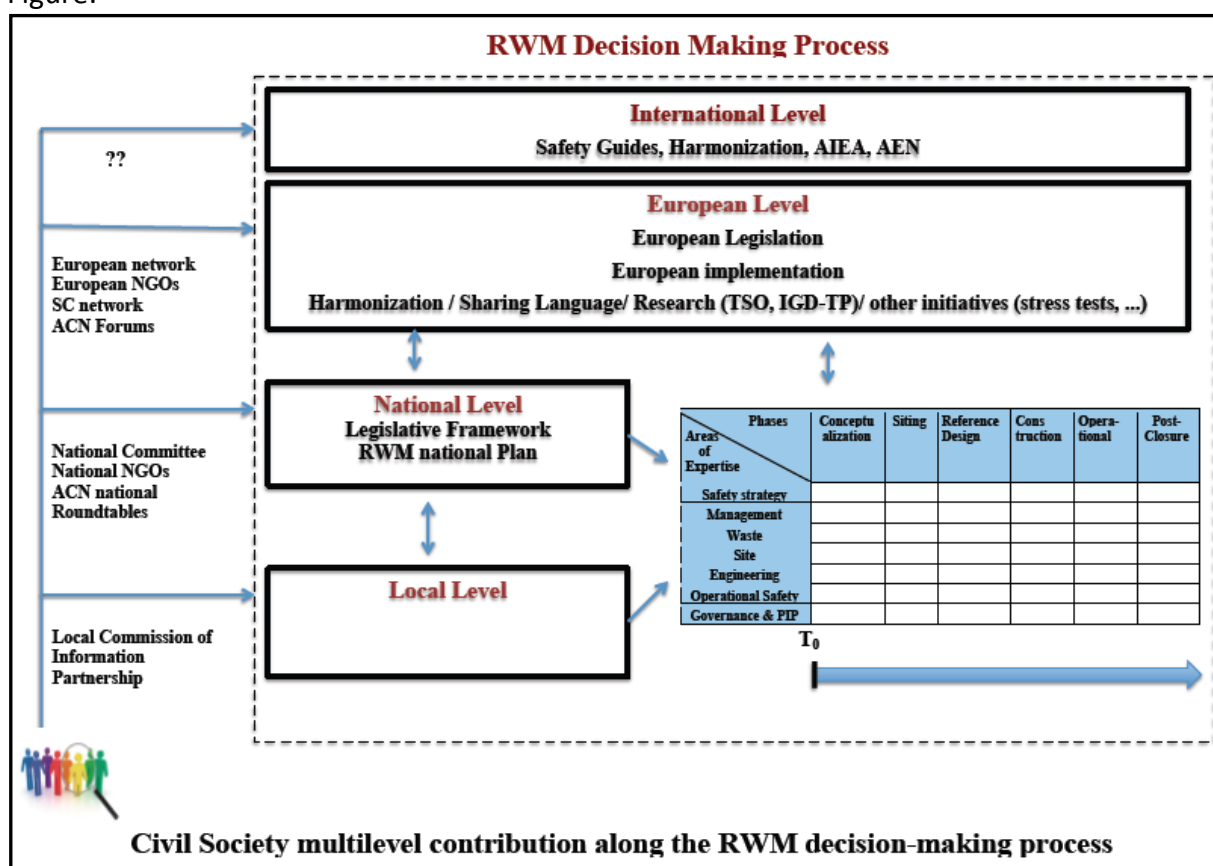


Figure 2: Civil Society multilevel contribution along the RWM decision-making process

6 Interactions between the civil society and the expertise function along the decision-making processes

In order to facilitate the interactions between the expertise function and the civil society, it is necessary to go towards a harmonization of the legislation and to develop specific tools and methodologies regarding the involvement of the “concerned” public, and also to take into account the intergenerational aspects of the management of the interactions with the civil society and its expectations.

6.1 HARMONIZATION OF LEGISLATION REGARDING THE INVOLVEMENT OF THE PUBLIC

Necessary conditions for entering a decision making process are to be recognised as an “affected” public. There is not one standard baseline for public participation across European countries, nor definition of concerned stakeholders, who could participate on official decision-making process, for various levels of decision-making processes as well as for various purposes. Therefore understanding of who is concerned stakeholder can vary country by country. None of one directive defines particularly the strategy of public involvement into the decision-making process and it is upon national regulator or implementer to decide what level of participation is adapted to particular processes. It is mentioned in the Directive 2011/70/EURATOM that participation of civil society in decision-making should be effective. Standard format of public access to information along the decision-making process in Radioactive Waste Management (RWM) involves public consultation along the official licencing processes. Again, legislation can vary country by country, but in the case of RWM the licensing process generally entails the successive steps of Environmental Impact Assessment (EIA) process, siting and construction licensing and finally nuclear installation licensing by nuclear regulator.

At an international level, trend towards reinforced public information and participation has notably led to the signature in 1998 of the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters by the European Commission and 39 European and Eurasian countries including the EU Member States. It should be noted for instance that the Aarhus Convention clearly establishes the right of the public to access environmental information **“Without an interest having to be stated” (article 4-1 a)**. At the European level, the provisions of the Aarhus convention for information and participation of the public have been incorporated into several European directives (although to a certain extent only) related to regulation of radioactive waste management or, more generally, of activities with potential impact on the environment. These directives notably include:

- The European Directive on the assessment of the effects of certain public and private projects on the environment (Environmental Impact Assessment – EIA – Directive). The original directive was issued in 1985 (Directive 85/337/EEC) and was amended in 1997,

2003 and 2009. The 2003 amendment aimed to align the provisions on public participation with the Aarhus Convention. The initial Directive of 1985 and its three amendments have been codified by DIRECTIVE 2011/92/EU of 13th December 2011.

- The European Directive 2001/42/EC of 27th June 2001 on the assessment of the effects of certain plans and programmes on the environment (Strategic Environmental Assessment – SEA – Directive).
 - The Directive 2011/70/EURATOM of 19th July 2011, establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste (articles 10(1), 10(2) and 12(1))

Regarding the national legislation framework, important differences exist between countries in practices on consulting interested parties and the public. Harmonization of public or stakeholder involvement seems however to be difficult to propose, given it is very depending on the country laws and political systems. Nevertheless, experience from cases of involvement might be better shared. Another disharmony among countries is regarding the understanding of the “sensitivity” of information (that would justify a deny of public access). Some information may be considered as “safety sensitive” in one country, while not in another country. Anyhow, it is not simple to reach a common consensus. It would be worth to better define the appropriate condition to consider some information as “safety sensitive”.

6.2 SPECIFIC TOOLS AND METHODOLOGIES

Developing a mutual understanding between CS & experts necessitates appropriate tools for enabling communication between the parties. The civil society must be provided with relevant and reliable information in due time, while the conditions for an actual dialogue should be established in order to avoid inefficient polarised discussions.

The regulatory body, including the expertise function, is expected to develop exchanges with the civil society on a regular basis on :

- The fundamental safety issues, like safety principles & requirements,
- Each steps of the decision-making process,
- The successive outcomes of Safety Case Review (making explicit the position of the authorities on Safety Strategy and Safety Concept adopt by the implementer),
- The outcomes of the R&D programmes that is developed by the expertise function.

A common understanding on the fundamental safety issues, makes it possible to discuss the specific aspects along the successive steps of the decision-making process. It is therefore not appropriate to initiate discussions with civil society only at a later stage, whereas many decisions have already been taken 10 years before. Therefore the civil society has to be involved quite early in the process of the development of a geological repository project.

It is not unambiguous which is the most suitable tool for interaction with civil society in DMP. There are number of tested participative attitudes.

The formal options for achieving public participation in the decision making process depends on type of the process and national legislation. There are a number of available processes, as advisory group, citizen’s panel, expert or focus groups partnerships etc. The PIPNA survey

(December 2012)³ commissioned by DG ENER is proposing institutional and legal procedures tools in order to achieve public participation in the nuclear sector along the decision-making process. The IPPA 7 FP7 project has also developed a mapping of public participation tools in various decision-making processes (not only in waste management contexts) together with a toolbox to support decision makers in the selection of the proper tool for interacting with the public:

- **Reference tools for public information and participation at national level:** a way to facilitate interactions with civil society at national level is the creation of a permanent national reference committee involving institutional actors and local, regional and national concerned citizens and civil society organisations (CSOs) together with elected representatives. The reference committee is to participate in the initial preparation of the national framework, in the preparation and corresponding update of the different sections of the national programme, in the preparation of 3-year reports to the European Commission, in the self-assessments of the national framework, in the preparation of the siting process, in the implementation of the siting process, as a third party guaranteeing the practical conditions for public information and participation at the local and national level. Conditions should be also set up to provide national and local CS stakeholders with relevant expertise from diversified sources.
- **Reference tools for public information and participation at local level:** For all phases of the decision making-process, an engagement of local actors in the national reference committee could foster mutual understanding. Regarding the siting phase, approaches involving new roles for local communities & stakeholders (see e.g. Sweden, Belgium, Slovenia & the UK) should be developed with voluntary engagement of local communities and stepwise decision-making process for progressive engagement of local communities with right to withdraw at different steps according to defined procedures (so-called “veto right”). These approaches implies also organised forms of local democracy, knowledge building & clarification of issues between the various components of the local community, NGOs, RWM organisations, sometimes regulators; resources to support local engagement and local democracy, including access to various sources of expertise and clear separation between support to engagement of local actors and support for local development. For operating and post-closure phase, the creation of a permanent Local Committee of Dialogue and Information attached to the RWM site, gathering local stakeholders to follow-up the activity of the site and provide independent information to local population can be a reference. (see e.g. the Local Committees in France, the UK or Sweden). It is also to consider of building an intergenerational ‘contract’ between the local and the national community including territorial development, a system of vigilance and monitoring including contributions of the national and the local levels, and a system of memory of the RWM sites shared between the national and the local

³ Public Information and Participation in Nuclear Activities (PIPNA) : Assessment of good practices on the participation of civil society in the development of nuclear activities - Final report 5th December 2012 - Contract NO. ENER/D2/2011-539

http://ec.europa.eu/energy/nuclear/studies/doc/20130128_pipna_final_report_05-12-2012.pdf

level and possibly with the EU and/or international level (see e.g. UNESCO World Heritage system).

- **Suitable ways to interact:** Looking for the most suitable ways for civil society and experts interaction three scopes were identified:
 - Dialogue between implementer and civil society - oriented on information and action toward waste management strategies implementation;
 - Technical dialogue between Expert function and Society with various level from clarifying of technical issues up to interaction with civil society on development of safety case;
 - Particular dialogue with regulatory function is focused on licensing process and regulatory decision, on nuclear safety issues.

However, it seems that does not matter which methodology or tool for interaction or combination will be finally applied to the process, success of the story can not be guaranteed as many unpredictable external factors enter the process. In any case, expectation of civil society, as mentioned above (see 8.1.4), needs to be reflected and sufficient time has to be accommodated for discussion to satisfy all participants. An open/safe space has to be guaranteed to keep discussions neutral, not polarised.

6.3 INTERGENERATIONAL MANAGEMENT OF THE INTERACTIONS WITH THE CIVIL SOCIETY

As waste management and especially waste disposal are topics to be dealt with on many generations, these are issues that lead to consider the long-term decision-making process. A certain level of flexibility to come back on previous decision is needed. But there is lot of question concerning intergenerational management, which have to be answered, e.g.:

- How to achieve some consistency in the development of RWM long-term strategies across generations (to start with the foreseen operational phase of geological disposal that would last at least 100 years)?
- What in case of major change?
 - Implementer need to review the impact of the change on the Safety Case
 - According to the issues to be discussed and timing of the decision-making, what are the appropriate levels of interaction (local, regional, national) between the regulatory and expertise function with the civil society?
 - Ensuring sustainability of any decisions, agreements or interaction in such a long/term process means to develop very good tools for keeping records and distributing proper information to all actors.

This is area, where historical experiences need to be researched and applied and surely new ideas will be evolved.

6.4 EXPECTATIONS OF THE CIVIL SOCIETY

Implementing transparency in the context of RWM makes it necessary to create conditions for the public to have an effective access to relevant and reliable information as well as to have an access to independent sources of expertise and as a minimum requirement to the expertise function of the public authorities. Representatives of civil society commonly do not have sufficient knowledge and resources to enter discussions on an equal footing with the

proponents of the projects. The availability of supporting independent experts during the DMP, providing the public with independent review and explanations of the available documentation of the project, is therefore a necessary component of transparency.

The discussion during the SITEX Workshop in Senec has also underlined the need for some kind of clarification regarding the principle of independency of the expertise function. There are specific institutional settings for expertise functions in the various considered countries. Public or private institution carries some expertise functions and independency can be understood in several ways. It is also understood that, in the reality, no expert or scientists can be absolutely independent because of the necessary cooperation in research areas, or as result of a lack of available researchers in nuclear sector in each country. It is expected that clear guidelines should be drawn in this area in order to determine what is the acceptable level of reliance, especially in the context of Eastern member states of the EU.

Resulting from SITEX workshop discussion in SENEC, development is needed on clear identification how and when should civil society enter the decision making process. Stakeholder's expectation is to take part to the decision making at the earliest stage, even before conceptual phase, when energy strategy is prepared. To ask civil society to cooperate only at the final stage of the nuclear energy cycle without interaction in earlier stages of project development is not acceptable anymore.

In general it can be noted that early interaction with expertise function should forego any decision making process. It could be some kind of deliberative discussion on Energy Strategy SEA. A frequently observed bad practice in some European countries is to shorten the official observation process and subsequently there is not sufficient time to open real discussion with stakeholders.

In summary, the basic requirement of civil society regarding entering the decision-making process can be summarised as follows:

- Start participation processes even earlier than conceptual phase
- Open discussion during preparation of Energy Strategy SEA, New build EIA as well as Plant Life Extension (PLEX) EIA (prescribed under ESPOO)
- Include in the interaction with the public any topic related to waste management, including decommissioning and legacy waste management.
- Introduce flexibility for enabling the public to interact with the decision-making process when he feels appropriate

The understanding of the nuclear waste management varies according to the knowledge and past experience of the public. Where understanding and exchange with expertise function is needed to support decision-making process quality, the list of relevant topics is very long. The most important topics were identified by stakeholders during the SITEX workshop as follows:

- Fundamental aspects of waste management background in each national context
 - Decision process, history and rational of already done decisions, subsequent strategic decisions ;
 - Norms and standards determining certain decisions and waste management itself ;
 - Safety principles & requirements;

- Position of regulator and regulatory body's experts;
 - Regular update on the R&D programme of the expertise function;
 - Regular update on the Safety Case review progress; (i.e. Safety concept; Safety strategy adopt by the implementer).

Mutual understanding is required to guarantee a continuous dialogue between the civil society and the expertise function. If there is no common understanding of fundamental issues, it is not possible to discuss more detailed aspects of each stage of the decision-making.

7 Interactions to be developed in the SCR process

The public participation during the Safety Case Review process is not regulated by legislation (contrary to the participation during the decision making process). Safety case results are basic determinants for decision-making at any stage of Geological Disposal development. Jointly to the public participation in the decision-making process, specific interactions are therefore needed between the civil society and the expertise function along the Safety Case Review process.

In the context of SCR process interactions should provide both the public and the experts with a common understanding of few topics and common answers of several questions that rose up during discussion between stakeholders during the SITEX workshop in SENEC:

7.1 WHAT IS THE AIM OF INTERACTION?

Without any clear goal for interaction, it is difficult to convince participants of the seriousness of the process. On the other hand, each participant brings his own goal and its role and position should be made clear at the introductory meeting. Rules and limitations for a particular case has to be defined as well as

General requirements of SCR & safety principles need to be defined at the beginning of interaction. According to the considered phase of SCR can be focused on various topics, such as, for instance the clarification of uncertainties. Finally, the interaction process is expected to contribute to mutual confidence and mutual respect (as an outcome of a credible and understandable dialog).

7.2 WHY SHOULD INTERACTIONS WITH THE PUBLIC BE ORGANISED DURING THE SCR?

A reason for organising interactions with the public along the SCR is to avoid, as much as possible, misunderstanding on the purpose and scope of SCR and to provide the public with a clear vision of the respective role of the actors of the SCR as well as with relevant information on the most problematic issues identified by the expertise function regarding the Safety Case, and the corresponding options implemented as a result of the SCR. It is also an opportunity for the expertise function to identify the priorities and particular concerns of the public vis-à-vis the safety of Geological Disposal or particular issues regarding the DMP. An additional reason for organising interactions is to take advantage of the participation of the public along the SCR to identify and investigate some particular or problematic issues that have not being dealt with, or have not been properly addressed. It is for instance foreseen that interacting with the CS will represent an opportunity to address the intergenerational dimension of safety and the problem of continuity of institutions and memory in the context of the Geological Disposal successive steps of implementation.

8.3.3 who should be included?

Experiences with interaction with civil society in SCR are very limited; therefore there is no definite answer to this question. Certain categories of the civil society have specific knowledge to share with the experts (regarding e.g. locality, particular technologies etc.) and

representatives of the affected communities are worth to be included into the process. However as it is stated by the Aarhus Convention, any person claiming to have an interest in the issue should be welcome. It should however be understood from the beginning that this kind of interactions is representing a significant amount of resources from both sides. In some cases (e.g. the case of French Pluralistic Expertise process in France, or the engagement of CSOs in the SCR in Sweden) specific resources are foreseen in order to make it possible for CS to engage in the SCR.

7.3 WHEN IS IT WORTHY TO BEGIN INTERACTION?

The answer to this question is very similar to the answer of the question regarding the participation requirements in the decision-making process. This mean, that participative process should start as early as possible, at the stage of conceptualization phase. Discussion needs to continue on regular basis, as Safety Case is a living document.

8.3.5 Processes and tools to organize interaction

The interactions between experts and CS along the SCR are expected to entail a strong technical dimension. Some of the already mentioned tools can be used, adjusted to the number of interaction process participants and their background. Facilitation or moderation of the process should be implemented especially at the beginning of the process. Goals, expected outputs, mutually agreed quality criteria for the process & rules of the participatory process should be discussed and approved by the participants prior to the beginning of the process that should be well structured with regular meetings and milestone. Sufficient funding has to be made available to keep the same level of interaction along the process. Improvement based on feedback experience is expected.

8 Interactions to be developed along the development of expertise function R&D

This purpose of this sub-section is to review the public expectations & the conditions for ensuring sustainable interactions between the expertise function and the civil society, along the development of the expertise function R&D.

8.1 EXPECTATIONS OF CIVIL SOCIETY REGARDING THE ROLE OF THE EXPERTISE FUNCTION IN R&D

The Senec workshop raised different expectations of civil society actors regarding R&D:

- It is generally expected by the public that the experts should make explicit what is known and what is unknown on a scientific basis, quantifying risks and describing uncertainties. R&D is expected to cover the most problematic areas where additional scientific knowledge is required.
- The most difficult technical topics are expected to be translated and explained in a simple form without pointless details while provided in valid scientific language.
- Sharing of R&D resources is also perceived an important issue as well as possible synergies as a result of international co-operation in the perspective of improving national SCR.
- International cooperation is also perceived as a mean for enhancing the reliability of the expertise function and its capacity to fulfil the identified needs for R&D.

8.2 GOVERNANCE OF R&D AND PUBLIC PARTICIPATION

Several research program have been developed in the past addressing the need for appropriate patterns of governance in order to make it possible for the public to engage in the decision-making of RWM. Some knowledge is now available on the practical application of various tools and methodologies supporting the involvement of the SC in the context of RWM. The R&D is an important dimension of the expertise function and the CS is expecting some kind of interactions at the different stages of the R&D process. It was notably raised by the CS the opportunity to take on board potential area of research in the SITEX SRA (e.g. the development of “RWM PLAN B” as potential alternatives in the case of a potential SC failure of the “reference RWM solution”). This includes both technical areas of research and societal aspects of RWM to be identified with CS. Some specific topics regarding the governance of R&D and the potential role of the public have been identified during the discussions in the SITEX workshop in SENEC. A particular concern is regarding the potential interactions with WMOs as a result of joint actions along the R&D development and the potential contradictions vis-à-vis the principle of independency of the expertise function.

This question is also linked with setting of an appropriate framework for the governance of European research, as the existing European Technological Platform in the RWM area (IGD-

TP) is more specifically initiated and governed by operators. Developing interactions with the public along the R&D process also raises the question of the potential goals (and expectations) of the public for engaging along the successive steps of the process (R&D framing, reviewing the results and impacts on the SCR). Further research and experimentations are needed in this perspective. A particular attention here should be given to Horizon 2020 potential developments in this area and more specifically on the future development regarding the development of social sciences in the context of nuclear activities (e.g. for instance the PLATENSO project or the future development of Insotec). In addition, since EU funds for R&D are public funds there are strong expectations from the public regarding how this money is to be spent and what kind of political control or influence is expected to drive the allocation of public funds in this new context of the European Technological Platforms. Appropriate R&D governance is expected to be implemented in order to govern the R&D process adequately and to allow the CS to be involved at appropriate stages.

9 Expected interactions between CS and SITEX network

9.1 GENERAL CONCLUSIONS AS REGARDS POSSIBLE CONTRIBUTION OF THE SITEX NETWORK TO THE INTERACTIONS WITH CIVIL SOCIETY

The discussions with the participants of the Senec workshop enabled identifying several main topics to deepen in order to develop interactions between the SITEX network and civil society actors:

- Public engagement brings an effective contribution to the quality of the decision-making process and SITEX provides a clear framework of the expertise process that is operated in the decision-making. The civil society is expecting from experts to adopt a broader vision and not to limit their scope to a narrow perspective (e.g. linkage between RW and energy strategy, to question the so-called need for transmutation reactors as a solution for RWM). The SITEX network interactions with civil society can be focused in the future to bring this broader vision under the light of various structures on national as well as European level.
- The expertise is not the monopoly of technical experts and civil society representatives are prepared to bring elements of expertise in the DMP. Experts from the society are not bound to one area of rationality. In this perspective they are more inclined to grasp the complexity of decision-making processes. This specific civil society multidimensional approach is a key factor of quality improvement of the expertise.
- The SITEX workshop in SENECA was perceived as an appropriate platform supporting the development of future cooperation and interactions with the civil society. SITEX should continue on providing such platforms for structured and equitable discussions between experts and the public and also according to the needs with other categories of stakeholders engaged into RWM and more specifically in the development of geological disposal. As suggested improvements, professional facilitators could be involved to achieve purpose-driven discussion.
- SITEX has to cooperate in the future with existing civil society networks and CSOs operating at EU level, such as Nuclear Transparency Watch, REC, Greenpeace, Friend of the Earth, etc.

From the discussions in the Senec Workshop, it can be stated that SITEX network and its potential future interactions with the civil society are expected to bring under the light the particular dimensions and steps of the Geological Disposal development (DMP, SCR and R&D) and to contribute to clarify the very specific needs (knowledge, expertise, interactions with the public) at each level and stage, bringing a platform for sharing experience and preparing common ground for SCR at European level.

9.2 INTERACTIONS WITH CIVIL SOCIETY AS A FUNCTION OF THE FUTURE SITEX NETWORK

This function of the SITEX network is defined as the network activities related to interactions with civil society. It includes:

- Determining the opportunities and possibilities to interact with civil society and at what level of governance considering existing interactions at the local and national levels;
- Identifying needs for interaction with society along the safety review activities (notably R&D, training, Review of Safety Case), along the decision-making steps on RW disposal;
- Contributing to the development of interactions between experts and civil society in order to increase the contribution of the public to RW disposal safety;
- Contributing to the development of the mutual understanding on safety culture;
- Contributing to the reliability of the democratic decision-making process - due to various historical context understanding of democracy vary across the European countries. SITEX can support harmonisation of attitudes to decision making process;
- Contributing to competence building and access of civil society actors to information (via better understanding as well as transparency).

The SITEX network could interact with civil society at different levels of governance and at different steps of the decision-making process. SITEX as a network of independent expertise functions can provide a space for safe discussion among various partners. On the other hand, SITEX has capacity to provide further research activities not only on technological topics, but as well as sociological research focused on increasing quality and sustainability of dialogue with stakeholders and decision making process.

Potential types of services provided by this SF to the national organizations of experts

The starting point for any interaction with civil society organized under SITEX network should be a European level and conceptualisation phase. Further prioritisation of the interaction needs to be aligned in strong cooperation with stakeholders.

On the one hand existing initiatives needs to be supported on various levels, as ACN or NTW, on the European level, cooperation and coordination of common actions in cross cutting issues. On the other hand existing local and national comities

To achieve useful results of any interaction, the initiatives for interaction has to be driven by clear purpose e.g. to achieve common understanding of some key points, identifying education and training topics or implementing some guides for safety review as for example Handbooks for post-accident recovery actions were tested under EURANOS project.

SITEX network support for national organisations can be focused on local/national actions or supportive global networking actions on European level. Interaction with civil society/stakeholders can run on various levels:

- interaction between particular SITEX participants with associated stakeholders on local/national level with support of SITEX network

- interaction on supranational level between SITEX network participants and stakeholders organised by network
- interaction on European level between SITEX network and European institutions and international stakeholders

Research activities should be followed by “safe space” discussion of various stakeholders. As a result of safe space discussion/workshops, new topics for research agenda and other activities should come out.

Under SITEX network a working group for interactions with civil society can be created, with a focus on:

- preparation of workshops and other interacting activities
 - determining clear goals of interaction with civil society on various level
- selection of priorities and topics for workshops
- selection of priorities and topics for research agenda
- networking with other initiatives involving stakeholders
 - search for overlapping and cross-cutting topics
 - common training and education of stakeholders on nuclear issues
 - common support/financing of local/national stakeholders groups

10 References

1. The World Café - method in <http://www.theworldcafe.com/method.html>, 2013
2. SITEX project website at <http://sitexproject.eu/#public>, 2013
3. Salzer, P. et al: Recent approaches for stakeholder involvement, SITEX project deliverable D5.1, November 2013

Annex 1 – Programme of the Senec workshop

Independent Technical Expertise Interacting with Civil society on Radioactive Waste Management in Europe

A SITEX EUROPEAN WORKSHOP

Agenda

16 - 17 September 2013,
Hotel Dolphin, Senec, Slovakia

The goals of the workshop:

1. Investigating case studies of Technical Experts interacting with Civil Society, discussing the purpose of engaging the public.
2. Presenting and discussing the SITEX findings regarding the definition of the expertise function and its activities.
3. Mapping the needs for the public to engage in the RWM decision-making process, Identifying opportunities for Civil Society & Technical Experts interactions.
4. Presenting and discussing the potential activities of the SITEX network for the future, Identifying further opportunities for SITEX to interact with Civil Society, Regulators and, where appropriate, with Waste Management Organisations.

1. First Day, 16th, September, 2013

8:30	Registration and coffee
9:00	Introduction and welcome, by the hosting organisation DECOM
	<ul style="list-style-type: none"> Goals of the SITEX workshop, <i>Adela Mršková, DECOM</i> Overview of the SITEX project, <i>Christophe Serres IRSN</i> Introduction of the participants
9:45	Session 1 - Case study presentations & discussions (Gilles Hériard-Dubreuil, Mutadis)

- The Asse citizen advisory group and expert advisory group process in Germany (*Anne Minhams, Markus Stacheder, Claus-Jürgen Schillmann*)

SITEX

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(D-N°:5.2) – [Interaction with stakeholders in the technical review in practice](#)

Dissemination level :PU

Date of issue of this report : **13/03/2014**

- The Group of Pluralistic Experts on the mining sites of uranium in Limousin, France (*Yves Marignac, Didier Gay*)

11:35 Coffee and refreshments

- 12:00**
- The ARGONA Interaction Panel on “Siting and safety case” in the Czech Republic
(*Hana Vojtechová*)
 - Conclusions of intercomparison
 - Transversal discussion on the case study presentations (Plenary)

13:00 Lunch

•

14:30 Session 1 – Working Groups

What is the purpose of engaging the public in the expertise function?

- Improving the quality of expertise?
- Taking on board the values of the public in the expertise?
- Raising the knowledge and capacities of the stakeholders from the public?
- Creating opportunities for concerned members of the public to develop their own expertise?
- Improving the RWM Safety?
- Developing long-term societal vigilance on RWM?

15:30 Coffee and refreshments

Session 1 - Working Groups - continue

16:30 Session 1 – Reporting of the Working Groups in plenary

•

17:00 Session 2 - Further developing interactions between civil society and experts in the context of RWM : discussing the SITEX proposals
(*Adela MRŠKOVÁ, DECOM*)

- Presentation of the “World Café” participation principles

17:30 End of the 1st day

19:00 Social event (hosted by DECOM)

2. Second Day, 17th September, 2013

**08:30 Session 2 - Further developing interactions between civil society and experts in the context of RWM : discussing the SITEX proposals
(Adela MRŠKOVÁ, DECOM)**

Presentation of Roundtable topics (plenary) :

Introductory information on SITEX Work Packages results:

- **Roundtable I:** What does expertise function mean (independency, transparency, competence)? - *Christophe Serres, IRSN*
- **Roundtable II:** The RWM decision making process, the role of the expertise function, possible interactions with the civil society, necessary conditions for allowing mutual understanding between experts and the civil society, *Frederic BERNIER, FANC*
- **Roundtable III:** The safety case review, possible interactions with the civil society - *Muriel Rocher, IRSN*
- **Roundtable IV:** The research agenda of the expertise function at national and European levels, discussing the expectations of the civil society - *Venda Havlová, UJV*
- **Mapping** the potential opportunities for the public to interact with the RWM decision making process at local, national & European levels - *Gilles Hériard-Dubreuil, Mutadis*

Summarising of the “World Café” participation principles

09:30 “World Café” discussions in 4 parallel roundtable groups

- 4 rounds x 35 minutes discussion

12:00 Lunch

13:30 Session 2 - Conclusions of morning session

Report on the 4 tables outcomes

**14:00 Session 3 Developing a European network of expertise function as a sustainable entity, foreseen interactions with the civil society
(Stéphan Baudé, Mutadis)**

- The SITEX European network foreseen functions, potential interactions of SITEX with the civil society - Gilles Hériard Dubreuil, Mutadis
- The transformation of the European governance of RWM Research & Development, expected interactions with the civil society, perspective and questions, Stéphane Baudé – Mutadis

15:40 Conclusion of the meeting, (Christophe Serres, IRSN)

16:00 Closure

16:20 Bus for Vienna airport departure

Annex 2 – Session 1 presentations and synthesis of related discussions

PRESENTATIONS AND RELATED DISCUSSION

(Anne Minhans, Claus-Jürgen Schillmann, Markus Stacheder, Yves Marignac, Didier Gay, Hana Vojtěchová, Johan Swahn)

ASSE case - AGO – The Asse Expert Advisory Group in Germany

(Anne Minhans, Claus-Jürgen Schillmann, Markus Stacheder)

In Germany, low and intermediate level radioactive waste (LILW) was disposed of from 1965 to 1978 in the Asse II repository, which was at that time a research mine operated by the German Institute for Radiation Protection and Environmental Research (GFS - Gesellschaft für Strahlen- und Umweltforschung).

From 1988, degradation of the repository was observed, including movements of the salt rock strata and influx of brine. From this time, stabilisation works were carried out by GFS. Due to danger of flooding and collapse, the closure of the repository was decided by GFS in 1997. However, criticism from local stakeholders, including local communities, has progressively developed as regards transparency of the process of closure of Asse II, but also as regards radiation protection issues. Public authorities at the local, district and county level officially adopted in March 2006 of a common resolution asking to develop a comparative assessment of possible options for closure, apply the legal framework for radioactive materials rather than the mining law and have the mine operated by a federal public entity. In response, the competent Federal Ministries (BMU and BMBF) and the Ministry for the Environment and Climate Protection of Lower Saxony (NMU - Niedersächsisches Ministerium für Umwelt und Klimaschutz) initiated a public participation process in the beginning of 2008. This public participation process was developed to enable local and regional stakeholders to exert close follow-up of the process of closure of the mine, to build trust in the decision-making process and to anticipate and prepare answer to legal requirements in terms of public participation. More information on Asse case can be found in SITEX Deliverable 5.1 and workshop presentation at SITEX project web page.

General information:

- History – mining regulations (nuclear ones were ignored); no public involvement
- Nowadays – under nuclear law – specific Act “Lex Asse” – March 2003
- Citizen Advisory Group “A2B” (17 participants with voting rights from civil society; 11 participants without voting rights – Operators/Experts)
- Retrieval of waste – common interest of operator, region and politics – experience cannot be easily transferred to other siting processes
- “A2B” group meeting – every 6 week (small A2B) and/or few times a year (A2B)
- Larger group = lower similarities

- Major players should participate
- Conditions: funding support, mutual respect, regular meetings
- Process itself is more important than results
- Funding – 400,000 € per year (250,000 € for experts and 150,000 € for A2B group)
- Expert group “AGO” – monthly meetings
- AGO – contribution to improvement and public acceptance
- Independent experts in technical issues
- Experts - technical and conceptual responsibility
- Added values: objectiveness, transparency, better access to information, improved interactions experts-civil society

Discussion (Q – question; A – answer; C – comment):

Q: Was QRS included in AGO?

A: No.

C: Experts must be independent; full free access to required documents is necessary; interactions between citizen advisory group and experts (independent experts vs. operators)

Q: KIT (organisation, which experts are included in AGO group) has nuclear history. How this influenced the credibility of KIT?

A: It is difficult to find independent experts. No other independent (no RWM experience, without state/nuclear funding) institution is available.

Q: How are groups working?

A: Atmosphere was excellent.

Q: Was AGO workshop big one for the public or small rather scientific one?

A: Mostly experts participate; however, citizen group may participate as well.

Q: What was the interaction between experts and citizens?

A: Quite smooth interaction; few confrontation points.

Q: Who decided to go to retrieval and on which basis (technical or social aspects)?

A: Decision was taken by radiation protection office (BfS authority); AGO just give recommendations to A2B.

Q: Were the experts hearing what civil society was asking?

A: Dialog was open and transparent – aim is to find a common solution.

Q: Would you dare to identify certain features in process that can work in general?

A: Asse – specific case; it is necessary to have funding and organisation of meetings/process, independent/credible experts are crucial.

Q: What do you find as success?

A: A2B represents the public opinion quite well no big conflict was appeared, various stakeholders were involved.

Q: What do think what guarantee that the process will be continued?

A: Common goal of participants.

GEP mines - a pluralistic expertise group to reassess the legacy of French uranium mining
(Yves Marignac, Didier Gay)

Uranium mining and milling industry once played a major strategic and economic role in France. After the definitive cessation of mining and milling activity in 2001, more than 200 sites are currently under closure and post - closure phases. Decisions required in this frame raise particular difficulties because of the sensitivity of some technical issues and the strong scrutiny and requirements of local and national NGOs.

This is particular true in Limousin, the region that stands for the cradle and the heart of the national uranium history. In order to deal with this complex and disputed topic, the ministries of environment, health and industry recently decided to set up a pluralist expertise group with the aim to come to analyze and give a critical point of view on the various technical documents prepared by AREVA NC about the surveillance and control of its mining sites in the department of Haute - Vienne in the Limousin region and then provide recommendations to public authorities to improve current situation.

General information:

- Three assigned objectives:
 - to analyse
 - to contribute to the technical assessment of current situations,
 - based on examples (in Limousin), to draw general conclusions
 - to recommend
 - to describe the options and make proposals in view of developing a strategy applying to all sites
 - to focus on the management and the reduction of impacts, and on long term management
 - to inform
 - to participate in the information of local players and the public
- A pluralist composition and organisation
 - Doubly diverse: Pluradisciplinarity (competences), Plurality of points of view
 - More than 40 experts involved (> 30 in plenary discussions)
 - Working groups
 - Group discussions lead and moderated jointly by IRSN and another member (academic, non-institutional...)
- Developing expertise - in-depth & lasting work
- Acting independently - capacity of action & dedicated means
- Final report handed to Minister of Ecology and president of ASN, 15 Sept. 2010: Conclusions and recommendations: 6 areas, 15 recommendations, over 100 detailed proposals
- Budget 400,000 € per year – comparable to Asse
- First the expert group was establish and then representatives of the public were involved (opposite approach as in Asse case)
- High profile initiative with...
 - evidence of added value
 - Playground for broader technical and scientific dialogue
 - Enhanced and innovative methodology

- Interlinking technical and societal analysis to address long term issues
- in-depth influence
 - interim outputs included in Limousin prefect decisions and in a ministerial circular issued in 2009
 - environmental assessment reports for every concerned department
 - creation or reactivation of CLIS to cover all sites
 - actions inserted in PNGMDR to cover some of the issues raised
 - additional actions included by Areva in its research strategy (Environmental risk assessment)
- but a modest public visibility

Discussion (Q – question; A – answer; C – comment):

Q: Is there an intention to make an exhaustive map?

A: It has already existed. Inventory and map are updated continuously

Q: Intention of future goals – are there other region or country where AREVA is extracting in order to avoid the mistakes?

A: Quite difficult issue. National authority has legitimacy to do this. Basically, this approach could be implemented to other places as long there is a demand from public and authorities.

Q: What about balance/interaction between experts (IRSN, local, independent experts)?

A: IRS took a strong part – discussion of methodology/findings and provides expertise. GEP monitors expertise. GEP had idea to include some stakeholders as and experts within GEP – local commission establishment – discussion with GEP were not very successful – low interest from public side

ARGONA - Interaction between the Civil Society and Experts in the context of RWM**Lessons from ARGONA communication activities in the Czech Republic**

(Hana Vojtěchová)

In 2008 and 2009, the ARGONA European research project has experimented three different arenas of interaction between experts and stakeholders in the Czech Republic.

According to the “Concept of Radioactive Waste and Spent Nuclear Fuel Management in the Czech Republic”, construction of a deep geological repository for the direct disposal of spent fuel and other high-level waste is considered the only realistic option for final disposal of the waste. Two suitable sites should be selected before 2015 and included in area development plans. The three arenas of interaction experimented organized in the framework of ARGONA European research were organized by the research team responsible of the 5th work package (WP5) of the project, focused on “Evaluation, Testing and Application of Participatory Approaches” and led by the Czech Nuclear Research Institute (NRI).

Later a RISCUM Reference Group was established with participation of all main stakeholders which was finally formed into working group for Dialogue on Deep Geological Repository. Mission of this working group is to enforce municipalities in the process of DGR siting and to ensure mutual and meaningful dialogue on NWM issues. More information on activities under ARGONA project in Czech republic can be found in SITEX Deliverable 5.1.

General information:

- At early stage – discussion are sometimes very general
- Independent experts are involved
 - Some kind of mediators (state vs. municipality participants)
 - Clarification of some technical issues during discussions
 - Provision of reports
- Trust between stakeholders were repeatedly disrupted
- Advisory group of MIT and MoE – inability to fulfil function of advisory board
- Need to strengthen political responsibility, necessity for tool and powers to efficiently support communities interests

Discussion (Q – question; A – answer; C – comment):

Q: Some organizations participate in few events or not in all, why?

A: There are different events and it depends on what you want to discuss, what are the preferences. NGOs do not want to participate.

C: Political support ended – old minister was supportive – it was promised to continue, but new minister has other preferences.

C: Arrogant experts may stop any process.

BONUS

(Johan Swahn)

General information:

- Resources have to be available for all participants
- Problem of experts dependency
- Problem of experts continuity (keeping them from the implementer)
- Governmental experts – have history – not really independent

- Communities experts – balance between interesting to project vs. showing independence to the public has to be find
- NGO experts – principle of independence has to be applied as well.

Annex 3 - Mapping Cafe - Mind maps

Figure 3-1 Mind map of Roundtable I - Expertise Function

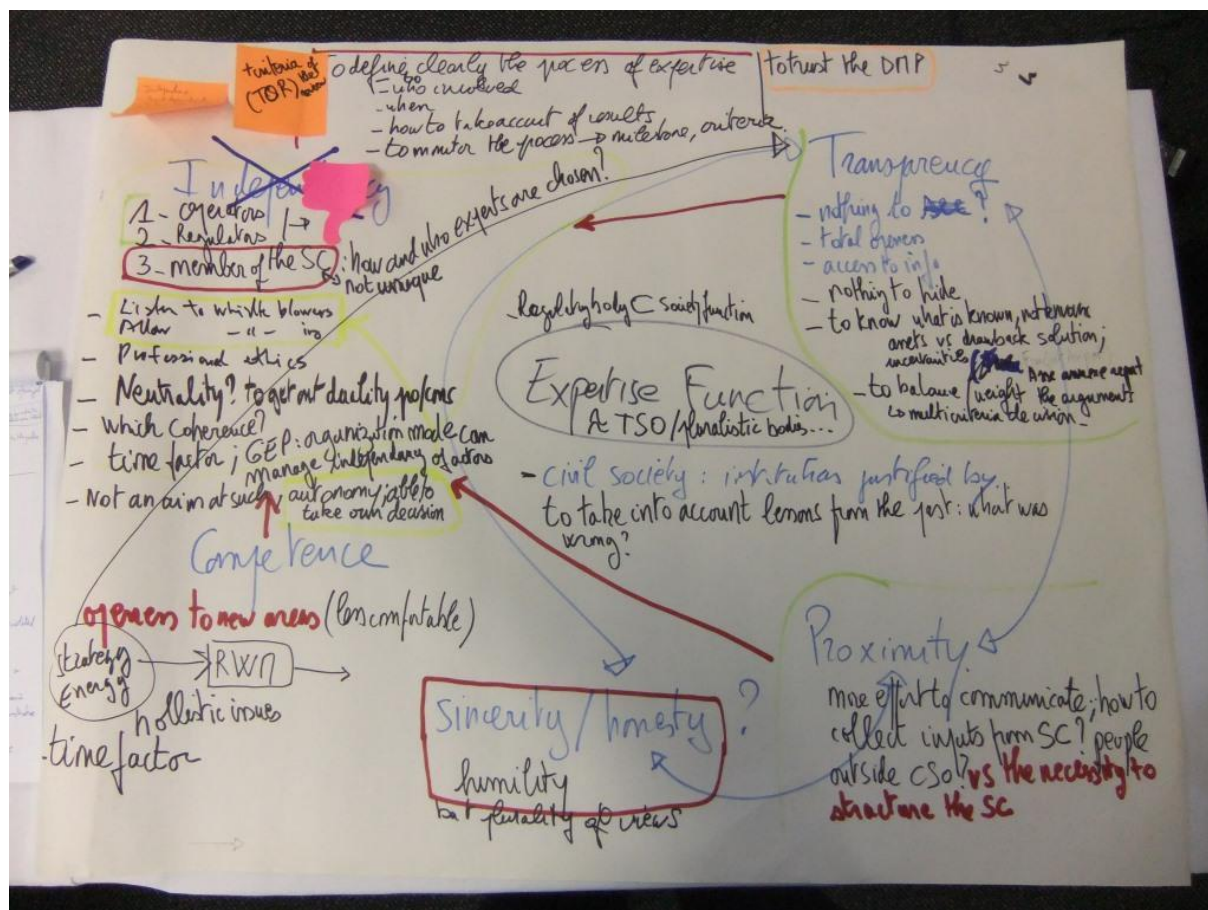


Figure 3-2 Mind map of Roundtable II - Decision Making Process



Figure 3-3 Mind map of Roundtable III - Safety Case Review

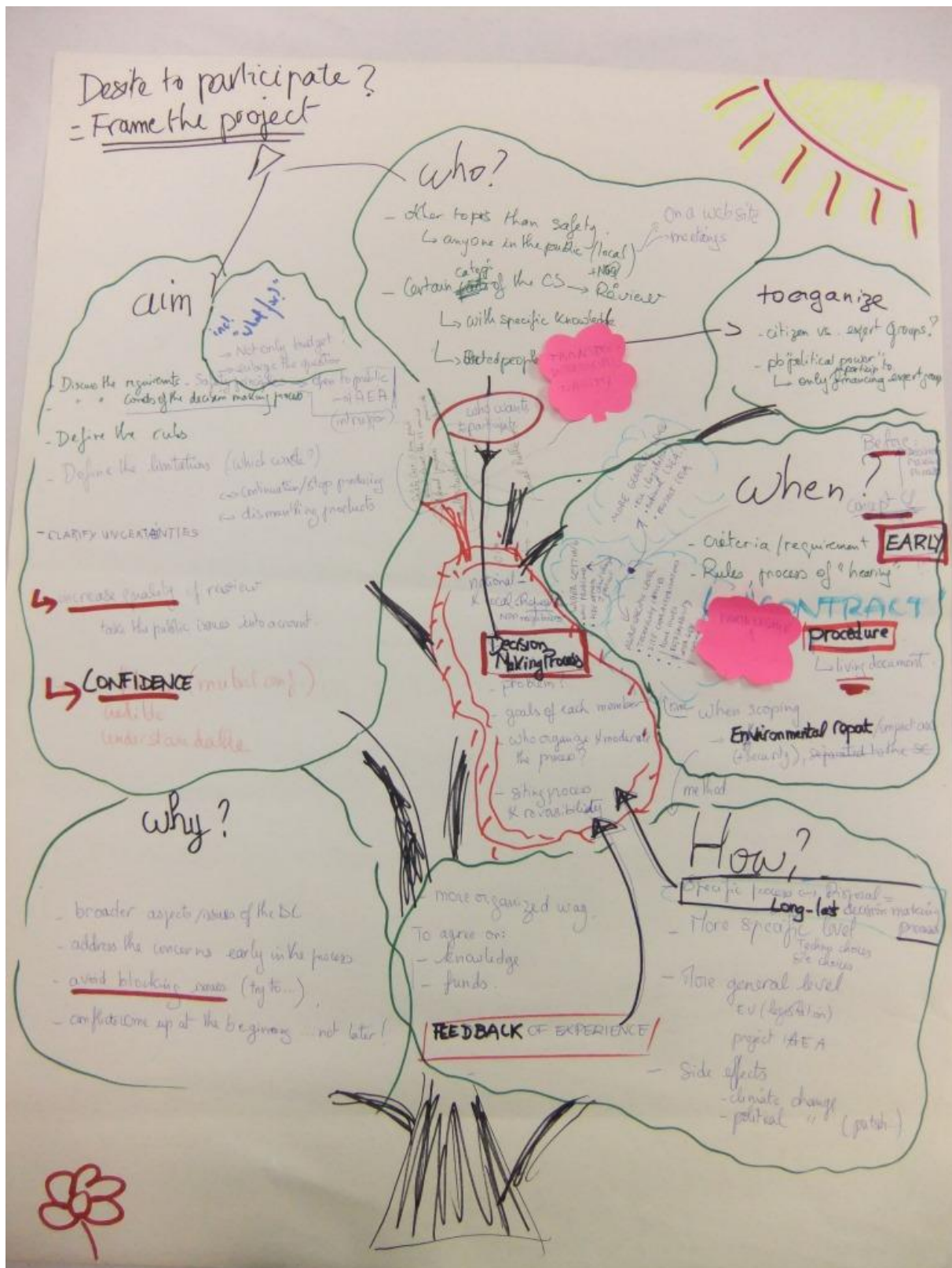
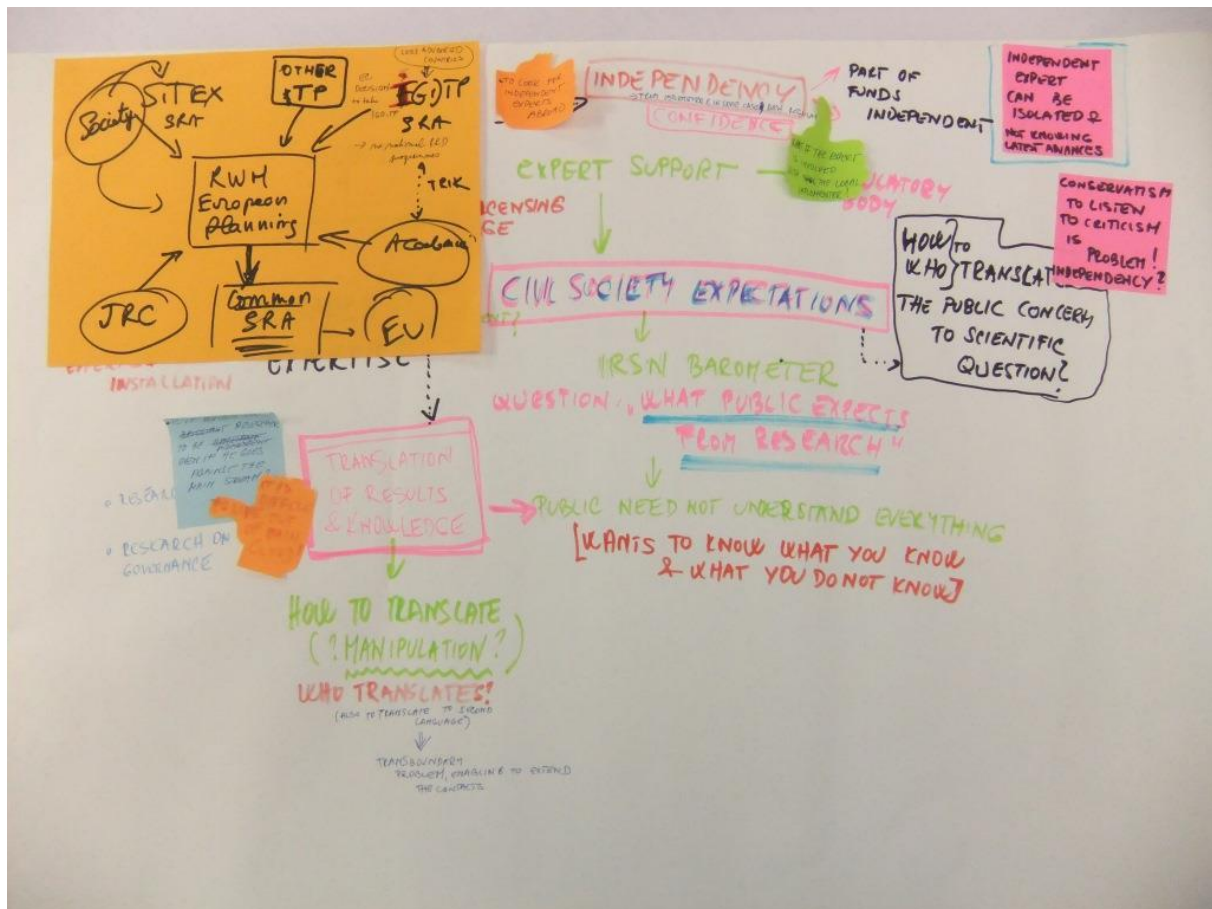


Figure 3-4 Mind map of Roundtable IV - Research and Development



Annex 4 – Survey on European technology platforms



Transformation of the European governance of RWM Research & Development

Survey on European technology platforms

Expected interactions with the civil
society, perspective and questions

SITEX – WP6

SITEX workshop “Independent Technical Expertise Interacting with
Civil society on Radioactive Waste Management in Europe”

Senec, Slovak Republic, 17th September 2013

Stéphane Baudé, Mutadis

1

Objectives & method

- Objective: bring elements of reference about organisation & governance of nuclear research at the European level, in particular concerning the creation, organisation & governance of European Technology Platforms (ETPs)
- Method:
 - Desk study taking into account public documents produced by European institutions (EC, EESC, ...), ETPs and other actors about
 - European research & innovation policies
 - ETPs (and other ETP-like structures)
 - 13 interviews of institutional actors (DG Research, DG Energy, ETPs in the nuclear field, TSOs, civil society actors)

2

1. Genesis & Evolution of European Technology Platforms

From Lisbon strategy to Europe 2020 strategy: a constant trend of integration between

- Research & technological development
- Public & private research

3

Parallel trends in European development strategies and research policies

EU strategies & general policies

- **Lisbon strategy** (2000): “the most competitive and ... dynamic knowledge-based economy”. Objective of 3% of EU GDP invested in private & public R&D
- **EU Strategic Energy Technology Plan** (2007): “Maintain competitiveness of fission technologies together with waste management solutions”
- **Europe 2020** (2010): “a smarter, more durable and more inclusive growth”. The objective of 3% of GDP invested in R&D is reaffirmed

EU research policies

- 2003: EU seems to fail to reach the objective of 3%. **ETP are conceived** as a tool for leveraging private investment in R&D
- DG Research responds to the SET-plan by developing **ETPs**, notably **in the nuclear field**: SNE-TP (2007) & IGD-TP (2009)
- **Horizon 2020**: integrating research & innovation, fostering public-public and public-private partnerships, supporting research programmes (notably programmes borne by ETPs)

4

Generic characteristics of ETPs

- ETPs aim to **improve the added value at European level** and to **increase the leverage of EU investment in research**
- DG Research publishes guidelines for ETPs in 2004:
 - Industry plays a leading role in ETPs. The EC is acting as a facilitator
 - EPTs must "**mobilize and balance in an open and transparent way efforts of all other stakeholders**"
 - Particular attention to be given to the social dimension
- 3 steps in the development of ETPs:
 1. The different stakeholders gather to develop a "**Vision report**" setting up the objectives of the platform in a 10-20 years time horizon
 2. Members develop a **Strategic research agenda** (SRA) setting research priorities & a **Deployment strategy** to implement the SRA
 3. Members implement the SRA by mobilising essentially **non-community resources**

5

Governance of ETPs

- ETPs chose whether they form a **legal entity or not**. MELODI and NUGENIA (SNETP pillar dedicated to gen. III reactors) did so.
- **Governance structure**, organisation and procedures are **decided by the stakeholders** during the formation phase of the platform
- The **EC** takes part to ETPs as an **observer**. The EC **facilitates** the formation and implementation of the platform by
 - Supporting the formation of ETPs (gathering the key stakeholders in 1st step, financial support to the ETP secretariat in 2nd step)
 - Contributing to the implementation of the platform, through support to research projects (FP6, FP7) programmes (Horizon 2020)
- Opinion of the EESC on ETPs (12/07/2012):
 - "Trade unions and other relevant **stakeholders should be more involved** ... on a cooperative basis"
 - "The ... role of **ETPs** ... **will gain a higher profile** in the light of the enhanced strategy of addressing innovation in addition to research"

6

ETPs today

- About 40 ETPs in 5 fields:
 - Energy
 - ICT
 - Biology-based technologies
 - Production and processes
 - Transportation
- Most ETPs created in 2004. The oldest created in 2001-2002.
- In the nuclear field
 - SNETP: nuclear fission
 - IGD-TP: geological disposal of radioactive waste
 - MELODI: a ETP-like cooperation (without industry leading role) on low dose effects, on-going discussions with Alliance (radioecology), NERIS (emergency and PA), EURADOS (dosimetry), EURAMET (metrology), in the framework of the OPERRA project
 - SITEX: TSOs network on radioactive waste management

7

2. ETPs in the nuclear field and their governance

8

EURATOM 2020: an approach of cooperation between all stakeholders and partnerships in line with Horizon 2020

- “favour an informed engagement of citizens and civil society on research and innovation matters by [...] developing responsible research and innovation agendas that **meet citizens' and civil society's [...] expectations and by facilitating their participation**”
- “The implementation of the Euratom Programme should **respond to the evolving opportunities and needs from science and technology, industry, policies and society**. As such, the agendas should be set in **close liaison with stakeholders from all sectors concerned**”
- “challenges of nuclear safety and diminishing nuclear skills in Europe can be tackled effectively by **exploiting synergies between the research efforts of Member States and the private sector**”
- “**priorities of the work programmes** shall be **established on the basis of inputs** from [...] bodies or frameworks such as **technology platforms** and technical forums.”
- “A greater impact should also be achieved by combining the Euratom Programme and private sector funds within **public-private partnerships...**”
- A will of DG Research to move from an approach of support to research projects to an **approach of support to research programmes and coordination** ⁹

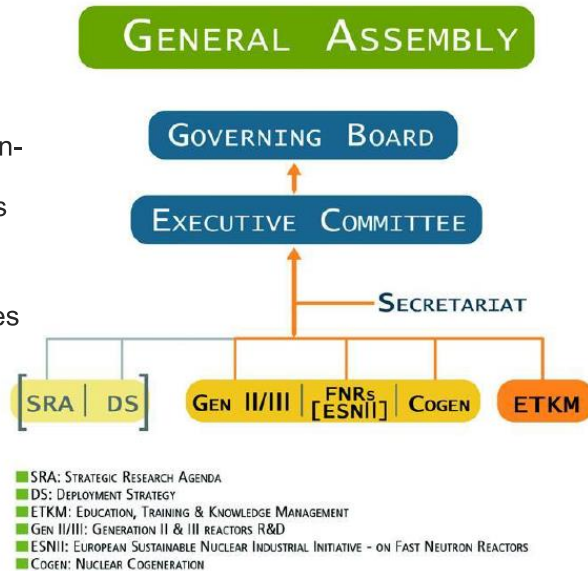
SNETP (2007): a “political platform” ensuring links between 3 autonomous pillars

- 35 members at the kick-off (2007), 105 members today: nuclear industry & services (39), research and technology centres (33), universities (18), TSOs (4), NGOs (4). Membership is conditioned to adhesion to the Vision
- SNETP is a political flexible & informal coordination tool between 3 pillars having their own organisation:
 - ESNII (European Sustainable Nuclear Industrial Initiative): Gen IV reactors
 - NUGENIA: safety & competitiveness of Gen II & III reactors
 - NC2I (Nuclear Cogeneration Industrial Initiative): new uses of nuclear energy
 - Membership in a pillar does not imply membership in SNETP
- SNETP is not a project funding structure
- Nuclear safety authorities take little or no part to SNETP's activities
- Very weak links between SNETP and civil society
- Gap between SNETP's total budget (7 B€) and Euratom 2020 fission budget (50 M€)

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SNETP Governance structures

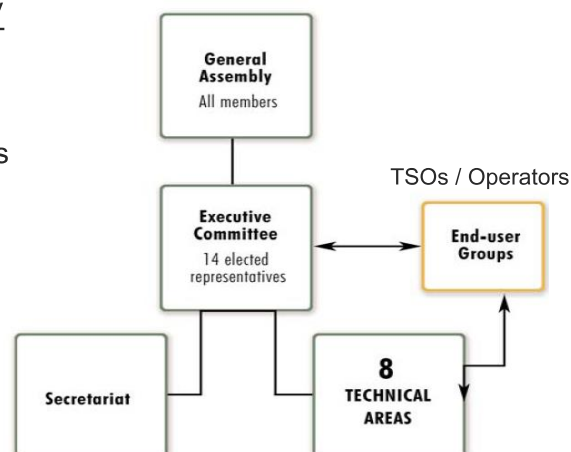
- SNETP is **not a legal entity**
- **General Assembly** meets yearly
- The **Governing Board** is the decision-making body, gathering high-level representatives of about 30 members of SNETP (2 to 3 meetings / year)
- The **Executive Committee** is the executive body, composed of deputies of Governing Board members (about 20 members, 3 meetings / year)
- Permanent **Task Forces** for each pillar + thematic task forces (SRA, Deployment Plan, Education & training)
- Ad hoc **Task groups** (e.g. on Fukushima)



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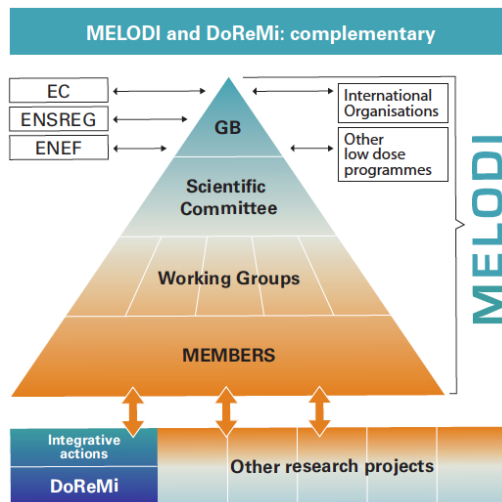
NUGENIA (2011): a legal entity gathering industries, research organisations & TSOs in research for safety of Gen II & III reactors

- NUGENIA = SNETP Gen II & III pillar + NULIFE (NoE on safety of nuclear facilities) + SARNET (NoE on severe accidents)
- 70 members: research organisations, industries, TSOs
- Belgian association since 2011
- Aim: bridging needs and skills
- A 3-steps procedure for developing research projects
- Self-funded structure
- Projects funded by members + EC or national research funds
- Sensitive issue: intellectual property & access to results



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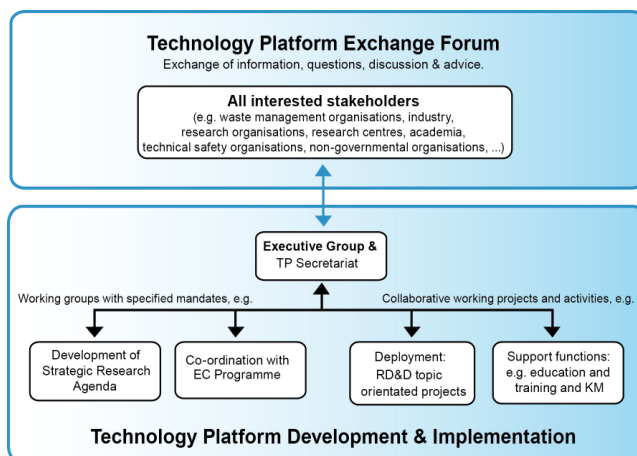
MELODI (2010): European cooperation between TSOs & research institutions on research on low doses risks



- Origins: High level experts group report (2009) on European research on low doses (serving as a preliminary SRA)
- 5 founding members wishing to have a common research platform
- 21 members today
- Short-term support (6 years) of the EC: NoE DoReMi (2010)
- Legal entity (association) in 2010
- Funded by members + possible subsidies
- Tool for interactions with stakeholders: yearly MELODI "open workshops" including a stakeholders meeting

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IGD-TP: a waste management operators- led platform in search for appropriate format of cooperation with TSOs & regulators



- 2009: Vision report
- July 2011: final version of the SRA
- June 2012: Deployment Plan 2011-2016

- Origins: CARD European project (2006-2007)
- "Vision" (2009) drafted essentially by operators
- Modes of interactions with TSOs not established (mirror group not considered as satisfactory)
- Executive group mainly composed of operators
- Frustrating membership experience of an NGO
- Not a legal entity
- IGD-TP in search of governance structures enabling cooperation with regulators & TSOs

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SITEX (2012): towards a European structure for TSOs & regulators cooperation & research

- In order to respond to needs for improved interactions between TSOs, regulators & operators in EU research, the EC initiates a call for “support for regulatory functions in the area of geological disposals” (2011)
 - “One particular more tangible outcome of the project could be, for example, the establishing of a formal IGD-TP ‘mirror group’ on regulatory functions”
- TSOs & regulators seize this as an opportunity to go beyond a mirror group and set up an autonomous network of TSOs & regulators able to
 - Federate the stakeholders concerned by geological disposals who are not included in IGD-TP
 - Develop & implement its research agenda on radioactive waste management
 - Get support from European research
- 20 TSOs, regulators & research bodies gathered in a 2-year project
- Objective: build conditions for a sustainable European network gathering TSOs & regulators
- Structure: 6 work packages corresponding to 5 key tasks + coordination
- Governance: Steering Committee (1 representative of each partner) ¹⁵

Next steps in the structuring of European research on radioactive waste management

- 2012: EURATOM call for project for a Preparatory Phase aiming to design “new modes of operation of integrated research programmes at European level for the development of solutions related to the management of ultimate nuclear waste”
- The EC “intends to implement the above objectives, for a large part, in the form of support to programmatic activities. These activities could be managed by external legal entities representing national public authorities and by bodies of nuclear research stakeholders such as [...] IGD-TP”
- The EC, IGD-TP and SITEX agreed on the necessity to develop a common proposal of IGD-TP & SITEX. However, the deadline was too short for developing a common proposal: the call remained unanswered.
- Towards a new call for project for a Preparatory Phase?
 - In coherence with the general strategy of Horizon 2020 resorting to public-private and public-public partnerships
 - An opportunity to get European support to TSOs’ research on RWM including subjects of interest for civil society

¹⁶

3. Conclusion – Challenges for European research in the field of RWM

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What interactions between TSOs, regulators and operators in the field of RWM research

- Horizon 2020 clearly calls for balanced cooperation between all stakeholders for a given technology.
- Within Horizon 2020, the “Innovation Union” calls for “pursuing a broad concept of innovation”. How can this broad notion of innovation (including social innovation) could be put into practice in the field of RWM? What consequences on research?
- DG Energy has a strong concern in preserving the independence of regulators required by the RWM European directive
 - According to art. 6.2 of the Directive, regulators should be strictly independent from “any other body or organisation concerned [...] with the management of spent fuel and radioactive waste, in order to ensure effective independence from undue influence on its regulatory function.”
- Under which conditions can TSOs develop common research activities with RWM operators?
 - Is NUGENIA an example of cooperation in structures where there is a balance of power between operators and TSOs? Is such cooperation possible in the field of RWM and at which conditions?

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Lessons of ETPs as regards engagement of civil society in European RWM research

- The importance of the European level increases in RWM research through ETPs and future European partnerships, while EURATOM 2020 calls for participation of civil society in EU research
- However, the experience of ETPs in the nuclear field shows that it is difficult for civil society organisations (CSOs) to participate in research activities at the European level through
 - Traditional processes of public consultation on documents or exchange forums
 - Direct participation to the activities of ETPs
- CSO stakeholder fatigue can be observed: taking part to ETP activities appears as unproductive spending of time and resources
- A need for cooperation frameworks with civil society enabling
 - Clarity on possible roles and contribution of civil society actors
 - Preservation of the identity of CSOs and other actors
 - Implementation of the Aarhus Convention (information, participation, justice)
 - Adequate support to CSOs engagement in European research

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SITEX, an opportunity for better liaison between research on RWM and civil society stakeholders

- Participation of CSOs in European research raises not only questions about resources, but also questions about access of CSOs to expertise on highly technical issues in RWM research
- European structuring of public expertise function as developed in SITEX can represent an opportunity for cooperation between TSOs and civil society at the European level
- In particular, the future SITEX network can help CSOs to access expert support in order to
 - Build and refine autonomous understanding of the stakes for civil society embedded in European research on RWM – including in the future Preparatory Phase
 - Identify opportunities to make these stakes duly taken into account (in the meaning of the Aarhus convention) into European research on RWM
 - Initiate participatory research actions with social and technical experts
 - Influence European research governance frameworks in order to ensure their inclusiveness

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