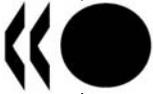


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## **Forum on Stakeholder Confidence (FSC)**

### **Coordination of Decision Making in Spain**

**The "COWAM SPAIN" Initiative and the Current Project Under Consideration for a National Interim Storage Facility for Spent Fuel and High Level Waste**

**The Sixth Workshop of the Forum on Stakeholder Confidence**

**Executive Summary and International Perspective**

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## INTRODUCTION

The sixth workshop of the OECD/NEA Forum on Stakeholder Confidence was hosted by the Spanish Nuclear Waste Management Company (Enresa) and the Council of Nuclear Safety (CSN), with the support of the Association of Spanish Nuclear Municipalities (AMAC); it took place in L'Hospitalet de l'Infant (Catalonia, Spain), 21-23 November, 2005. The workshop started with a half-day session in L'Hospitalet, aimed at giving a general introduction to the Spanish context. This was followed by a visit to the Vandellós-I nuclear power plant and the municipality. After the community visits the workshop continued with three half-day sessions in L'Hospitalet.

Fifty-four registered participants from fourteen countries attended the workshop. About half of the participants were Spanish stakeholders; the rest came from FSC member organisations or other institutions in OECD countries. The participants included representatives of municipal governments, civil society organisations, Parliament, government agencies, private companies and international organisations, as well as private citizens, consultants and academics.

### ***The three-day meeting was structured as follows:***

*Day 1 morning* was devoted to introductory presentations, focusing on the Spanish institutional background and past case histories related to nuclear energy and radioactive waste management.

*Day 1 afternoon* Visit of the municipality. The visit to the site of Vandellós-I offered an opportunity for delegates to learn about the decommissioning and dismantling project of this nuclear power plant. The visit to the economic development zone of the municipality, particularly the “nursery of entrepreneurs” - a municipal project for helping new businesses get off the ground - helped understand the efforts aimed at invigorating the local economy.

*Day 2 and the morning of Day 3* were devoted to the central theme of the workshop: how decision-making about RWM is coordinated today in Spain. Invited plenary speakers introduced the COWAM Spain initiative and expounded its three main themes: (i) democracy and participatory systems for the local level; (ii) the interplay between the national and local level; and (iii) long-term governance. Presentations provided a background to subsequent round table discussions that included both local stakeholders and international delegates.

*Day 3 afternoon* was devoted to the feedback by two thematic rapporteurs. They evaluated the meeting from two distinct perspectives: that of the policy making approach, and of participatory decision making.

The present Summary gives an overview of the presentations and discussions that took place at the workshop and the community visit. The structure of the Executive Summary follows the structure of the workshop itself. Complementary to this Executive Summary, and also provided with this document, is the NEA Secretariat's reflection highlighting from an international perspective some of the lessons to be learnt.



## 21 NOVEMBER – DAY 1

### BACKGROUND INFORMATION ON SPAIN

Introductory presentations in Part 1 focused on the legislative background, the institutional framework, and the key players in radioactive waste management in Spain. In Part II, two case examples were presented, regarding an earlier attempt to site a deep geological disposal facility for HLW and on the dismantling of the Vandellós-I nuclear power plant, respectively.

#### Welcoming session

**Takanori Tanaka**, Deputy Director General of the OECD Safety and Regulation Division opened the workshop. He expressed his thanks to the Spanish hosts, Enresa, CSN, AMAC, and the municipality of L'Hospitalet. He highlighted the activities of OECD NEA and particularly the FSC concerning communication with stakeholders of radioactive waste management, where citizens are treated as partners. Mr. Tanaka pointed out that the main objective of FSC workshops is to better understand similarities and differences between societal aspects of radioactive waste management in various countries and to share international experiences “on the ground”.

**Janet Kotra**, Vice-Chair of the FSC and Head of the HLW Public Outreach Team of the US Nuclear Regulatory Commission, welcomed the audience on behalf of the FSC. She expressed a profound appreciation for the fact that, over the years FSC, workshops have developed to an excellent opportunity for learning, where participants listen to each other with great respect and empathy. Ms. Kotra emphasised that the main objective would be to understand and address factors that affect stakeholder confidence. She expressed her hope that – similarly to the previous ones – this meeting would again be a satisfying experience for all parties.

**Josef Castellnou**, Mayor, Municipality of L'Hospitalet i Vandellós, welcomed participants on behalf of the host community. He briefly described the settlements of the municipality that occupy a total area of approximately 100 km<sup>2</sup>. First he reviewed the socio-economic characteristics of his and neighbouring communities and, within this, the importance of the nuclear industry. Tourism is another activity playing a very important part, thanks partly to the scenic beauty of the area, its unique landscape, e.g., the proximity of the Ebro River delta, and partly to the historic traditions of the region.

#### PART I: THE SPANISH NUCLEAR AND INSTITUTIONAL SCENE

**Carlos Villota**, Director of Nuclear Energy of UNESA gave an overview of the Spanish nuclear industry, the utility companies and the relevant institutions. Companies of the nuclear industry include firms that produce heavy components or equipment (ENSA), manufacturers of nuclear fuel (ENUSA), engineering companies, the National Company for Radioactive Waste Management (ENRESA), and

nuclear power plants (nine units at seven sites). Nuclear energy is a significant component of the energy mix in Spain: 11% of all energy produced in Spain is of nuclear origin, whilst the share of nuclear energy in the total electricity generation is approximately 23% .

The five main players of the energy sector that provide for the vast majority of electricity production, distribution, and supply have formed the Spanish Electricity Industry Association (UNESA). The latter carries out coordination, representation, management and promotion tasks for its members, as well as the protection of their business and professional interests. In the nuclear field, UNESA through its Nuclear Energy Committee coordinates aspects related to nuclear safety and radiological protection, regulation, NPP operation and R&D.

Regarding the institutional framework of the nuclear industry, ENSA, ENUSA and ENRESA are controlled by the national government through the Ministry of Economy and Finance and the Ministry of Science and Technology. All companies of the nuclear industry are licensed by the Ministry of Industry, Tourism and Trade (MITYC), while the regulatory body is the Nuclear Safety Council (CSN). It is noteworthy that CSN is independent of the government, as it reports directly to Parliament.

**Nuria Prieto**, legal advisor to ENRESA presented the main components of the Spanish legal and institutional framework with regard to site selection and licensing of nuclear facilities. The licensing process is governed by two key regulations, the Regulation on Nuclear and Radioactive Facilities (RINR) and the Royal Decree on Environmental Impact Assessment (EIA Decree). According to RINR, nuclear facilities require a number of permits and authorisations for their operation, including a preliminary authorisation (this recognises the suitability of the site selected), the construction permit, the operating permit, the authorisation for modification, and the decommissioning permit. All these permits and authorisations are issued by the Ministry of Industry, Tourism and Trade (MITYC) upon previous certification by the Nuclear Safety Council (CSN). The EIA Decree instructs that an EIA be submitted by the applicant to the Ministry of Environment (MIMA), which issues an EIS before any permit or authorisation is granted by MITYC.

Ms. Prieto set forth the procedures of public information prescribed by the above regulations during preliminary authorisation. The Regulation on Nuclear and Radioactive Facilities (RINR) requires the publication of an announcement indicating the objectives and the main characteristics of the facility and a 30-day period of comment. Similarly, the EIA Decree prescribes a period of public comment to the EIA. In addition, it is required that an Information Committee be operational during the construction, operation and dismantling of nuclear facilities, the mission of which is to inform and consult stakeholders. Members of an Information Committee should include – but not be restricted to – representatives of national government agencies (e.g., MITYC, CSN, MIMA), affected regional authorities and municipalities, and the operator of the facility.

**José Manuel Redondo**, Assistant to the Deputy Director for Nuclear Energy, MITYC, summarised the current status of Spain's General Radioactive Waste Management Plan. The Plan forms the basis for a national radioactive waste management policy and decommissioning strategy. It is prepared by Enresa, submitted to MITYC, and if agreed, it is forwarded to the national government for approval with subsequent notification to Parliament. The planning horizon taken into account goes from 1985 to 2070. The National Plan is updated periodically; the current (5<sup>th</sup>) Plan was approved in 1999. The most important element of the current strategy is the development of a centralised interim HLW storage facility by 2010. This might be complemented with the construction of on-site storage facilities at some NPPs, or with a second centralised facility. Meanwhile, research should continue on final geological disposal and P&T (the latter primarily by participating in international programmes).

Activities included in the Plan are financed by a separate Fund, generated for the most part by billing the NPPs.

Mr. Redondo pointed out that, due to various recent developments in the nuclear industry, the revision of the current Plan is expected shortly. Finally, he argued that in order to meet the goals of the Plan, the public must have confidence that the best technologies have been chosen and a satisfactory decision making process has been established.

**Isabel Mellado**, Technical Director of Nuclear Safety, CSN, outlined the functions of the nuclear regulatory agency in Spanish radioactive waste management. She indicated that the CSN is the only Spanish institution enabled to issue regulations in nuclear safety. The agency prepares binding statements in relation to the authorisation of nuclear facilities. It is responsible for inspecting and controlling the operation of nuclear facilities and enforcing the correction of possible deficiencies. In addition, the CSN is responsible for monitoring nuclear facilities, controlling environmental impacts, and inspecting radiological protection of the workers and the public. The agency provides information and training for the public, gives technical support in emergencies, and participates in the preparation of emergency plans. The authority has bilateral agreements with various countries, and takes part in the work of international organisations such as the IAEA, the OECD/NEA, and the Latin American Regulators' Forum.

Ms. Mellado introduced the Strategic Plan developed by CSN for the period 2005-2010. The main strategic objectives and activities related to decommissioning and waste management are (i) to complete the set of standards that regulate radioactive waste management; (ii) to develop an integrated model for the licensing process and control of nuclear installations, including the end of life, decommissioning and radioactive waste management; and (iii) to develop new tools for the safety assessment of waste storage installations. The main objectives and activities related to social credibility include (i) developing a communication policy aimed at increasing transparency and credibility; (ii) entering into dialogue with stakeholders to learn about their expectations and views and to promote mutual trust; (iii) facilitating access to information; and (iv) facilitating stakeholder participation in relevant CSN decisions.

**Rosario García Velasco**, Parliamentarian, Member of the Industry, Trade and Tourism Commission, spoke of the recent activities of the Commission related to nuclear matters. The Commission found that the existing Nuclear Energy Law appears obsolete and does not meet today's requirements. Therefore, the Commission is planning to submit to the Parliament amendments to this Law. In addition, the Commission proposed to amend the Law defining CSN's responsibilities, with the aim of expanding the controlling authority of the regulatory body. It has also decided that the General Radioactive waste management Plan should be updated. The Commission found that determining health risks related to nuclear activities requires epidemiological studies. The Green and Socialist factions have agreed funding for such studies.

Ms. Velasco recalled that all members of the Parliament – including the members of the Green Party – supported the development of a centralised storage facility. There is also agreement that in the course of finding a location for the facility, transparency of decision making processes and public participation should be strengthened, objectivity and security should be guaranteed, and political consensus should be sought.

## **PART II: PAST EXAMPLES OF CASES AND ACTORS AND THE EMERGENCE OF STAKEHOLDER INVOLVEMENT FOR DECISION MAKING IN SPAIN.**

As the first case history, **Jorge Lang Lenton**, Corporate Director of Enresa, recounted the failed attempt to establish an underground disposal facility for HLW. The site selection process, which was planned by Enresa in the 1980s, was aimed at finding the “technically best” site. The process was conducted by technical experts without public involvement. When 40 candidate siting areas were identified in the mid-1990s, information leaked out, creating vigorous public opposition in all of these locations. In 1998 the siting process was halted. The Senate proposed to continue R&D on geological disposal and on P&T, to reduce waste production, and to develop an energy policy that relies more on renewable energy sources. They also suggested that public participation be promoted. The 5<sup>th</sup> General Radioactive Waste Management Plan, which was developed in 1999, took these proposals into consideration. Regarding underground disposal, the government postponed any decision until 2010. At the end of 2004 a decision was made by Parliament to establish a centralised storage facility for HLW.

Mr. Lang Lenton highlighted the main lessons of the failed siting attempt. First, it has to be acknowledged that HLW management is a societal rather than a technical problem. Second, for any radioactive waste management facility a socially feasible rather than a technically optimal site should be selected, i.e., “the best site is the possible site”. Finally, transparency and openness are needed for building confidence in the decision making process.

As part of the case history on HLW disposal facility siting, **Antonio Rovira Vinas**, Professor, Autonomous University of Madrid, reported on the proposal of the Senate for the Study of the Problems Generated by Radioactive Waste. The study took place from 1996 to 1998, with a wide stakeholder representation; participants included the representatives of universities, trade unions, environmental NGOs, municipalities, regional governments, research centres, government agencies, Enresa, and international organisations. The transcripts of the discussions and the views expressed by stakeholders were analysed by a group of academics, and Professor Rovira presented a summary of the main results. The policy regarding nuclear energy production and radioactive waste management was seen as a problem that has to be taken up by the national government. However, it was also agreed that any decision to be made should have the support of the affected municipalities and regional governments (Autonomous Communities). Stakeholders criticised former decision making processes for the lack of transparency, and expressed the wish to participate in democratic processes governed by the principles of information, transparency and participation.

Both environmental groups and trade unions were of the view that nuclear power plants should be shut down before decisions on the waste issue are made. Other groups, including the municipalities, took the opposite view, i.e., that planning for radioactive waste management should start now. Technical groups tended to support the deep geological disposal option, while representatives of several research organisations felt that storage at NPPs should be maintained and CSN officials considered that temporary centralised storage was more recommendable. Many participants had the view that further research needs to be conducted on various technologies (e.g., deep geological disposal, P&T) before a definitive decision is taken. It was suggested that politically feasible and technologically adequate solutions should be pursued and a law should be developed to instruct how such solutions should be identified. Mr. Rovira concluded that the study was very useful, participation was very active, and even radical environmental groups, like Greenpeace, took part in the dialogue constructively.

The second case example discussed in this session was associated with the dismantling of the Vandellós-I nuclear power plant. First, **Jorge Lang Lenton**, Corporate Director of Enresa outlined the history of the operation, closure and decommissioning of the facility. The plant’s construction started

in 1967, and operation was launched in 1972. In 1989 a fire in the turbine hall led to a government decision to close down the reactor. In 1998 dismantling activities started, which finished in 2003. Decommissioning and dismantling (D&D) activities were undertaken by Enresa, with regulatory oversight by the CSN. In 2003 the dismantling activities were completed and a latency period of 25 years started.

During the D&D period the implementer focused on internal training, the employment of local labour force, communication policies and safety. In addition to providing internal training to the personnel, Enresa also tried to mitigate the negative socio-economic impacts of NPP shut-down by hiring local and provincial companies to participate in dismantling activities. As a result of these policies, about 65% of the personnel were composed of local and provincial workers. Communication policies focused on inviting the public to visit the site and reassuring them about the safety of the operations (the total number of visitors reached about 25,000). In order to build up a good long-term relationship with the affected communities and institutions, Enresa engaged in cooperation with a number of local actors. For example, a Municipal Monitoring Commission was established, an agreement was made with the Rovira i Virgili University of Tarragona on education and scholarships, and collaboration was set up with the Council of Commerce of Baix Camp in the field of waste management.

**Josef Castellnou**, Mayor, Municipality of Hospitalet i Vandellós, acknowledged that the decommissioning of the Vandellós-I nuclear power plant was a big challenge for the community. Closing down of the facility resulted in a rise of unemployment and a decrease of municipal income. Therefore, from the very beginning, municipal governments entered into negotiations with Enresa on socio-economic benefits, including local employment in dismantling activities, and other types of financial and non-financial compensation. The ADE business association, i.e., a network of business organisations was created that guided the allotment of work to local firms.

Mr. Castellnou explained that local municipalities focused on the triad of safety, information and local development, considered the three “pillars of trust”. A Municipal Monitoring Commission was created, made up of representatives of affected municipalities, the regional government, the ADE business association, trade-unions, the local university, the NPP management and Enresa to monitor the dismantling process and regularly inform the local public. A number of communication tools and channels were used, e.g., public information meetings, an information centre, the municipal magazine, the municipal radio station, and meetings with representatives of the local press. Academics from the University of Tarragona helped with translating technical information to public level.

José Luís Revilla, Head of the Dismantling Project, CSN, confirmed that the key factors of success of a D&D project are safety, participation and economic development. In order to increase transparency and stakeholder confidence, in D&D projects regulators should act as the “people’s experts”, i.e., as accessible resources for stakeholders to address safety issues.

Mr. Revilla spoke of the role of the regulator in the Vandellós-I decommissioning project. In this case, the decommissioning EIA provided the first opportunity for involving stakeholders, particularly local groups in planning D&D activities. The second such mechanism was the establishment of the Dismantling Information Committee for the Vandellós-I Decommissioning Plan, in which representatives of various national government agencies as well as regional and municipal governments took part. Within the framework of this Committee, the CSN appointed a Resident Inspector to oversee ongoing activities and provide for public information. By reporting to the Parliament and informing the general public and the media about its oversight activity, CSN played the role of a “guarantor” of safety in this project.

Carles Barceló, President of the Industrial Union of Hospitalet, spoke about the involvement of local companies in the dismantling project. Local companies realised that they could not undertake the whole project, and informed Enresa of the tasks in which they would be able to cooperate. On the whole, during the course of the 5-year project the local and regional firms were given more work than they had originally expected. Mr. Barceló praised the good partnership that evolved between the local firms and the implementer.

Frances Domenech, Chair of Tarragona Media Association, recalled that the Vandellós-I accident created a very difficult situation for the nuclear industry. During the crisis the nuclear sector decided not to participate in any media activities. Finally, the industry realised that not being open only exacerbated the credibility crisis. The closure of the Vandellós-I power plant decreased the stress and offered an opportunity for the nuclear sector to change its attitude and public relations.

In Mr. Domenech's view the Vandellós-I decommissioning project is a technical challenge undertaken by society. Enresa made great efforts to rebuild mutual trust between the nuclear industry and the media. For the first time, journalists were provided with fluid data, some of them very complex, which the media had to render more understandable for the public. Finally, Mr. Domenech observed that nowadays it is the regulator which most needs to gain credibility.

**Francesc Castells**, Professor, University Rovira i Virgili of Tarragona, spoke of the support that the University provided for the Municipal Monitoring Commission. He noted that the composition of the Commission was balanced, representing the interests of every important stakeholder (industry, environment, employees, employers, host and neighbouring communities, the regional government, the power plant and the implementer). The Environmental Analysis and Management Group of the University served in a technical advisory role. Services of the University included the peer review of periodic Enresa reports, the review of documents delivered by Enresa to the Commission concerning labour and environmental safety, technical advice to the Commission related to the dismantling process, and request for - and analysis of - additional technical information. Mr. Castells underlined that the performance of the Municipal Monitoring Commission was highly professional. He recommended the use of similar arrangements in the case of other future dismantling processes.

**Ana García** of the Autonomous University of Barcelona described the role, goals and future plans of the Association of Spanish Nuclear Municipalities (AMAC), formed by the mayors of Spanish municipalities that host, or whose boundaries lie within a distance of ten kilometres from a nuclear facility. One of its main goals has been strengthening the safety of nuclear communities and promoting emergency planning. In addition, AMAC is endeavouring to take a voice in nuclear discourse and is willing to serve as a link between relevant agents (e.g., ministries, CSN, Enresa, industry) and local actors. Although the initial mistrust has given way to an explicit recognition of AMAC as a unified speaker for its members, AMAC still is not fully accepted as a participant in the decision making processes. Ms. García judged that this is not only a clear manifestation of the democratic deficit in Spanish society, but also indicates a far-from-ideal situation concerning transparency and participation of groups affected by nuclear facilities.

Ms. García highlighted some of AMAC's goals and planned actions, for example, getting recognition and social legitimisation as a representative spokesman for local institutions in nuclear matters, reinforcing the channels of public information, raising public awareness regarding the necessity for democratisation and transparency, facilitating the development of Local Information Committees, becoming a participant actor in decision making processes related to the centralised waste storage issue, and promoting sustainable development.

**22 NOVEMBER – DAY 2****MAIN WORKSHOP****THE “COWAM SPAIN” INITIATIVE AND THE CURRENT PROJECT UNDER CONSIDERATION FOR A NATIONAL INTERIM STORAGE FACILITY FOR SPENT FUEL AND HIGH LEVEL WASTE**

The main workshop focused on the COWAM Spain initiative, aimed at developing recommendations for institutional arrangements and decision making processes concerning the siting of a centralised interim storage facility for HLW. After the opening, three sessions addressed the main themes of the COWAM Spain project, i.e., (i) the involvement of the local level, (ii) the interplay between the national and local level, and (iii) the long term sustainability of decisions. Sessions were structured into plenary presentations and facilitated round table discussions. The latter were summarised by moderators.

**Workshop Session 1: Opening**

**Claudio Pescatore**, Principal Administrator of OECD, welcomed workshop participants on behalf of NEA. He introduced OECD, the Nuclear Energy Agency (NEA), its Radioactive Waste Management Committee (RWMC) and the Forum on Stakeholder Confidence (FSC). OECD was set up by 28 industrialised countries, which possess 85% of the world's installed nuclear capacity. It is funded by member countries in proportion to their GDP. According to its Strategic Plan, the main goal of NEA is to maintain and further develop the scientific, technological, and legal bases required for a safe, environmentally friendly and economically sound use of nuclear energy. NEA has 80 employees (40 professionals) and seven committees.

Mr. Pescatore underlined the fact that the RWMC is a unique world-wide forum of senior regulators, implementers, policy makers and managers of R&D institutions, including representation of EC and IAEA management. It has four subgroups, the Forum on Stakeholder Confidence (FSC), the Integration Group for the Safety Case (IGSC), the Working Party on Decommissioning and Dismantling (WPDD), and the Regulators' Forum (RF). The main goals are to gain a shared understanding of both the commonalities and differences between countries and types of organisations, to advance the state of the art wherever possible, and to make findings widely available. For delegates the above subgroups provide a neutral ground where all views are heard and debated, and an environment for learning and self-improvement.

**Anna Vári**, Professor, Hungarian Academy of Sciences, provided feedback on Day 1. She outlined the Spanish nuclear and institutional scene, identified the main stakeholders, and observed that while some actors (primarily the Parliament, Enresa, and AMAC) have played key roles in shaping national RWMC policy, there are other important stakeholders (e.g., waste producers, regional governments, NGOs, and the general public), who have not been involved in such decisions so far.

Regarding the role of the general public, it seems that public influence has been exerted on policy making mainly through the mechanisms of representative democracy or protest actions rather than direct participation.

Regarding the main lessons learnt from the two case studies presented on Day 1, she pointed out that in the case of siting an underground HLW disposal facility, key factors of failure included the intention to find a technically optimal site, the lack of openness and transparency, and the lack of political consensus regarding the need for a radioactive waste management facility. Regarding the Vandellós-I dismantling case, the following factors of success were identified: proactive approach and openness on the part of the implementer, involving local stakeholders, and addressing socio-economic concerns and safety issues. In addition, the necessity of dismantling was obvious for most stakeholders, and efforts for cleaning up were seen positively. Finally, community leadership played an important role in the successful management of the dismantling project.

**Mariano Vila D'Abadal** from AMAC summarised the objectives, components and achievements of the COWAM Spain initiative, which grew out of the “Community Waste Management” COWAM 2 project under the EU 6<sup>th</sup> Framework. Initiated by AMAC, it was aimed at planning a site selection process for a centralised waste storage facility. Participants of the project included experts from universities, representatives of regional governments, nuclear communities, nuclear industry, the implementer, the regulator, and trade unions, among others. The project was structured into four working groups. One dealt with overall management and integration and the others with (i) issues of democracy and local participatory systems, (ii) institutional framework and multi-level decision processes, and (iii) long-term governance, respectively.

Regarding the main conclusions of “COWAM Spain”, there is an agreement between key stakeholders that solving the HLW management problem and more specifically the selection of a site for a storage facility is the responsibility of the national government. Decision making at the national level should accommodate the requirements of political agreement, safety, public participation, information, and transparency. In order to reach the needed social and political consensus, affected municipalities and regional government(s) should be integrated into the decision-making process. From an ethical perspective, priority is given to the principle of responsibility, i.e., the problem should be handled by the current generation, and each country should manage its own waste. Links between nuclear energy policy and radioactive waste management policy should be made explicit, and public participation in policy making in both fields should be fostered. At the local level, the participation of municipalities should be voluntary and withdrawal from the process should be allowed. In addition to safety, sustainable socio-economic development of the affected region should also be promoted. It is recommended that Local Information Committees be set up with the aim of institutionalising and legitimising public participation at the local level.

In order to conduct a transparent, efficient, and legitimate site selection process, the establishment of a National Committee, composed of local and regional stakeholders, politicians and experts is proposed. This Committee would (i) define the technical, environmental, social and economic criteria for selecting candidate siting areas, (ii) develop a procedure for inviting interested municipalities to participate in the site selection process, and (iii) identify a minimum of two and a maximum of five suitable sites. The national government – with the agreement of the affected regional government and municipalities – would select the final site. It is also recommended that the National Committee continue its oversight activities during the later phases of construction and operation of the facility.

**Workshop Session 2: Involving the local level**

**Mercé Chiapella**, Professor, University Rovira i Virgili (Tarragona) presented a comparative study conducted within the framework of WG1 (democracy and local participatory systems) of COWAM Spain. Two projects associated with the installation of a combined cycle natural gas power plant in the Tarragona district were compared: one in Mora la Nova (Enron) and one in Hospitalet/Vandellós (Natural Gas). The Mora la Nova siting attempt failed because of vigorous local opposition, while the Hospitalet/Vandellós process was successful. A detailed analysis revealed that the main difference between the two processes lay in the nature of the negotiations between the operator and the local stakeholders that preceded the publicising of the project, and the efficiency of the reconciliation of the standpoints. As a result of the comparative study, recommendations have been formulated concerning a few crucial preconditions for successful siting. One is that as many alternative scenarios as possible and their possible outcomes should be analysed before a decision is made. The second is that from the very beginning of the project contact should be made not only with the host municipality but also with the neighbouring local governments, regional and national administrations, the affected business community, pressure groups, platforms, etc. The third recommendation concerns the style of negotiations with the stakeholders. According to this, the likelihood of success is higher if negotiations are comprehensive (i.e., aimed at integrating a variety of goals), interest-based and explicit. Namely, they are more likely to result in win-win solutions than narrowly-focused, position-based negotiations with hidden agendas.

## **Round table discussions**

(Moderator: **Kathryn Shaver**, NWMO, Canada)

### ***What is the appropriate role for scientific experts (who would address issues such as need for the facility and safety) in a dialogue with the local population?***

Most round tables felt that scientific experts (some preferred the term “specialists”) should be available to respond to questions and provide clarifications during public dialogues. It was recommended to distil and distribute in advance plain language summaries of scientific and technical issues as background context for meetings. Some emphasised that a dialogue means two-way communication, for a real exchange. It was agreed that experts should strive to be responsive to what local stakeholders want to know, i.e., to match available expertise to local expectations.

Some of the participants viewed that experts must be perceived to be independent. Others suggested that specialists should declare their interests and expose their values transparently. It was suggested that affected communities ought to have access to their own specialists for independent advice and expertise on matters they wish to pursue. Resources provided to local communities for purposes of capacity-building are key to addressing the information balance between implementers and affected communities. Ensuring that communities have resources and access to independent specialist knowledge of their choice is essential to supporting active local participation and informed decisions at the local level.

It was suggested that regulators should be visible and act as consultants for local stakeholders, but caution was noted that regulators aren’t always viewed as “independent”. It was also observed that actors (such as the regulator) that serve well as “experts” in one country may not be well received in that role in another country. Implementing agencies are also often to be considered “experts” provided that they have earned credibility in the eyes of the public. In other instances, NGOs may be regarded as experts.

Round tables discussed the challenges of addressing the broad range of disciplines of expertise deemed to be relevant to radioactive waste management. These multi-disciplinary areas will need to be addressed through appropriate specialists or working groups. Some pointed out that leadership is also required from social science experts, including those from the local university community. Finally, it was suggested there should be honesty about what science can and cannot do – i.e., address scientific uncertainty with candour – and this is key to building trust.

### ***What can the leading governmental agencies do to demonstrate and follow through with commitment to a genuine stakeholder involvement process?***

Participants argued that governments have an important role in setting the foundation and communicating the case for required decisions on radioactive waste management. To the extent that governments can clarify at the outset how the waste management plans fit into the overall energy plans, this clarification may be helpful in establishing the focus and foundation for stakeholder involvement. Clarity should be provided by governments through statutes at the national level concerning the focus and scope of decisions, the roles and responsibilities of various actors, and requirements for public involvement.

The opportunity exists for establishing oversight commissions that bring together government representatives from national, regional and local levels with other actors for the duration of the project planning and implementation. Such a commission was proposed for consideration in Spain. It can also be very helpful if some government staff are on the scene and, therefore, become known in the community hosting the project. This was the case with the CSN, which had a resident inspector at the Vandellós-I site during the critical phase of D&D.

Government can empower communities by legitimising local information committees and granting them autonomy. Round tables found that it is important to embrace proper training of all government representatives who interact with local stakeholders so that they are prepared to speak candidly, in plain language, to listen to local concerns, and when appropriate to make changes based on input from local expertise. It was also recommended that social science expertise be recruited and applied to better tailor government communication to the knowledge of how people receive and process information.

***Would you agree that safety is everyone's concern and it will come naturally from a healthy democratic discussion?***

It was agreed that safety is everyone's concern and it is non-negotiable. However, various stakeholders may hold different perspectives and definitions of safety.

Regarding whether or not safety will emerge naturally in democratic discussion, there were significant differences between the views of the round tables. Most of them judged that better safety assurance will not naturally evolve from discussion. However, one of the round tables concluded that when stakeholders are presented with opportunities to engage in discussion, issues of safety and security will emerge in dialogue. One country (Canada) reported that its iterative and multi-party engagement with specialists, interested citizens and the public at large had enabled exploration of what constitutes "safety" with regard to requirements for radioactive waste management. "Safety" was defined in collaboration with citizens as well as specialists, so that the scope to be considered included that which is relevant to citizens, and not just the definition understood by specialists. It was found that a meaningful process of engagement provides a democratic process through which citizens and specialists contribute to decision-making against this expanded perspective of safety.

Round tables were of the view that safety will need to be demonstrated at each point in the implementation process. It was suggested that societal notions of safety would evolve over time, as would the state of technical knowledge that greatly influences perceptions of safety and risk. It is therefore important to continue to provide democratic processes through which implementers can understand and align processes with evolving understandings of safety.

***How to create multiple opportunities for people to be engaged in the process in ways that suit their needs and constraints?***

Round tables suggested that decision-making processes should be structured to allow for multiple engagement opportunities through iterative processes of dialogue and sharing of information. It is important that such processes facilitate real dialogue and active participation, not just one-way consultation. Engagement opportunities can be provided early on in a project phase, designed to understand societal expectations, pre-eminent citizen values, and key objectives for the project. Active involvement at the local level can continue through the implementation period, which may continue for decades.

It was felt that a diversity of engagement tools and media may be appropriate in order to reach the broad range of communities of interest. Face-to-face meetings are highly valued for real dialogue and such meetings may be supplemented through electronic dialogues, workshops and working groups. It was suggested that both qualitative (e.g., interviews) and quantitative types of processes (e.g., opinion polls and referenda) be applied. A step-wise decision-making process can play an important role in providing such multiple opportunities for engagement.

A structure to ensure active local engagement was discussed. Round tables viewed that it should be based on the establishment of a core, oversight committee that would meet at regular intervals to discuss project findings and maintain a forum of local stakeholder engagement. This type of committee could be supported by a number of topical working groups tasked with addressing a range of community-specific issues. Some of the round tables emphasised the importance of autonomous local advisory committees, which require resourcing and formal status conferred by government authorities. Committees could be tailored to the needs of the community to most effectively contribute to local discussions of the questions to be asked, information needs and the range of expertise required by the community.

### **Workshop Session 3: The interplay between the national and local level**

**Miquel Ferrús i Serra** from the Group of European Municipalities with Nuclear Facilities (GMF) summarised the activities carried out by Working Group 2 of COWAM Spain, focusing on the institutional system and the interaction between decision processes at various levels. The group first analysed the institutional background of radioactive waste management and identified the actors whose role in the authorisation process is defined by law. Then actors that can play important advisory roles (e.g., nuclear communities, media, business groups, consumers, federations of municipalities, NGOs) were also listed.

Next, Mr. Ferrús presented a case associated with a failed attempt to establish an industrial waste storage facility in Baena (Córdoba). He explained that although the potential host municipality and several local players (e.g., political parties) supported the project initially, a massive opposition followed, and finally the vast majority of the local population rejected the facility. A detailed analysis revealed that the main cause of failure was the lack of clear definition of the project (e.g., the source and volume of waste, the technology to be applied, etc.) before negotiations with the municipality about compensation and participation started. Another important factor of failure was the lack of transparency, which opened the way for speculations. Lack of involving a number of important stakeholders in the negotiations resulted in disagreements between members of the regional parliament and between different executive levels of government and various other political actors.

Mr. Ferrús explained the lessons that were drawn from the empirical study. Most importantly, the goals of a radioactive waste management project and the roles of the various actors should be clearly defined from the very beginning. The national government should be the one who defines the problem to be resolved, should demonstrate its willingness to solve it, and should guarantee safety and transparency during decision, implementation and operation. Both the affected municipalities and the regional government should participate in all of the above phases. A National Commission should be created to guarantee the fair play by the actors throughout the process. The members of the Commission should be chosen by the Parliament. In addition, a Local Information Committee should be established in the candidate area to inform and consult the local community.

## **Round table discussions**

(Moderator: **Janet Kotra**, US Nuclear Regulatory Commission)

***Are there clear definitions of roles for the national and local level in Spain [with regard to waste management decision making]?***

Most of the round tables were of the view that the roles of various players have not been clearly defined yet and there is still opportunity to shape the roles in the context of defining a process. Participants of discussions agreed that the national government should lead the process, but the need remains for wider national consensus. Enresa must draft a Radioactive Waste Management Plan, but it is not clear how stakeholder input in application of the Aarhus Convention will be taken into account during the planning effort.

***How to balance national imperatives with local views? Who should lead, local or national?***

Round tables suggested that leadership for structuring any site-specific stakeholder involvement process should be at the local level, with the national government retaining the final decision-making authority. Many participants spoke of the value of retaining a municipal veto as is the case in Finland. In many countries, the “regional level” is also important; lack of support there can derail agreements reached between municipalities and national governments.

***Is there any national framework for supporting the local level (host communities and/or neighbouring communities) from the economic and other viewpoints?***

Participants agreed on the importance of providing generous resources and legal tools, allowing for some measure of local oversight (in addition to, or to complement that of regulatory authorities), as well as a long-term role for host community. Many participants noted the value of empowering a local committee for providing and receiving information to and from the local community. It was suggested that local communities should have the ability to decide what role they want to play and under what conditions.

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### Workshop Session 4: Long-term sustainability of decisions

**Meritxell Martell** from Envirospan spoke of the long-term aspects of radioactive waste management. She pointed out that decision making processes need to be framed within the context of sustainability, which means that a balance should be sought between scientific considerations, economic aspects and structural conditions. Focusing on structural aspects, Working Group 3 of COWAM Spain came to the conclusion that the activity of the regulator is a key factor of long-term management. Another finding is that from a sustainability perspective multi-level governance is more effective for coping with the challenges of radioactive waste management than one tier of government making decisions. The working group also felt that the current Local Information Committees need to evolve towards more institutionalised and legitimised mechanisms for long-term involvement.

Ms. Martell introduced a study comparing the efficiency of economic instruments to advance sustainable development in nuclear communities vs. municipalities in mining areas. The study found that funds transferred to nuclear zones had become a means to facilitate local acceptance of nuclear facilities rather than a means to promote socio-economic development. Another finding is that economic instruments are not sufficient guarantees of sustainable development by themselves; additional preconditions include leadership, vision and entrepreneurship on the part of community leaders, private or public investments, among others.

Finally, Ms. Martell summarised the challenges faced by the Spanish radioactive waste management programme, which include the need for strategic thinking, designing the future in a participatory fashion, and working with local and regional governments and citizens to devise mechanisms for social learning, economic development and environmental protection.

### Round table discussions

(Moderator: **Markus Fritschi**, Nagra, Switzerland)

***The transportation activities are likely to be an ongoing issue over several years. There is a potential for public individuals to hinder the transport of cargo by various means. How do you lower the probability of such an event, and should it occur, how do you manage the situation taking into account public confidence in general?***

Most round tables indicated that transportation of RW materials is seen as a symbol by opponents. Institutional actors are responsible for transporting safely; various means are used for that purpose, from secrecy to fully open announcement of the transportation program.

In Germany, the industry has been requested to have storage on their sites in order to reduce the risk with transportation of nuclear material, and only vitrified waste is transported to a centralised storage facility. The probability of hindering the transport is reduced by a strong control by the police, especially over the last few kilometres. There is also some gain in performing transportation at another

date than the one announced. In Sweden, there is no protest about transportation, which is performed by sea. In Argentina, the answer has mainly been legal, with an agreement of the Parliament. The clear framework that has been drawn in Argentina led to reduced opposition and hindering. In Japan, information about transportation is kept secret in order to avoid or limit hindering. In Canada, there is no transportation. In Germany and in Canada, clear information is delivered to the municipalities; this information is considered to be a factor for safety. Local municipalities may also play the role of a social institution in a very democratic way as in the UK. It was noted that transportation is regulated by a permit delivered by the regulator in most of the countries.

***The host community for the central storage can be seen as providing a “service to the nation”. Beyond the responsibilities of the operator (Polluter Pays Principle), should the national government provide compensation for this service (User Pays Principle)? How will such an idea be received by the different stakeholders in Spain? Is there a precedent for such compensation? How is it negotiated?***

The understanding about Spain is that the government provides compensation for service to the nation through the mission given to Enresa. As soon as spent fuel is discharged from the reactor, it is considered as waste. The government has a clear responsibility for managing long term storage and for compensating communities. Money to the communities is coming from the power plants, in the form of a tax, and is managed through Enresa.

In other countries, the question of compensation is raised when taking account of the opening of the energy market, and its consequences on competition. Compensation is not used in Sweden and in other countries as a direct explicit feature. Funds exist in all countries for reinforcing roads and infrastructure, developing public service, and supporting further studies, but the word “compensation” is avoided. However, compensation does exist in other fields of activity, such as for the oil industry in the Shetland Islands. Other forms of compensation may exist as local taxes or lower price for electricity delivery. Some participants noted that direct compensation cannot be relied upon as the only way to encourage local communities to accept an installation.

It was noted that the principles and rationale of compensation need to be developed ahead of time. It has to be decided if a burden or a disturbance is acknowledged, in which case compensation is aimed at balancing these. Another possibility is to consider benefits as incentives for the host communities to accept a facility. Benefits can be used for e.g., investing in human capital or developing infrastructure. In any case, the real or perceived impacts of the facility on the various players need to be understood, and compensation/incentive schemes must be discussed with the government of the affected region rather than merely with the host community.

### **Workshop Session 5: Thematic reports**

In Session 5, two thematic rapporteurs presented their observations on the workshop. A discussion with the audience ensued.

**Yves Le Bars**, former Chairman of Andra and of the FSC, analysed the Spanish case within the European context. First, he summarised the evolution of policy making approaches since the Second World War. In the first stage, decision making authority was assigned to experts. Dialogue was not part of decision processes; opposition manifested itself in protest actions. In the second stage, society demanded the consideration of alternative solutions. Opponents organised legal actions and in this way decision making authority was transferred to the courts, which based their judgements on hearing experts on differing sides of the question. The third stage is characterised by the involvement of relevant stakeholders and an interaction between decision makers, experts and stakeholders.

According to this approach, public policy needs to be elaborated, adapted to, and adopted by different interest groups.

Mr. Le Bars argued that the Spanish history of radioactive waste management went through the former two stages. The siting attempt for an underground disposal facility followed the approach of the first stage. Decision makers and experts were of the view that deep geological disposal was the best solution and they were not willing to share information with the public. This led to a failure and a moratorium. The Vandellós-I decommissioning case shows some features of the second stage, for example, the introduction of independent expertise in the Municipal Monitoring Commission. Finally, with the involvement of AMAC, a shift to the third stage can be seen: the COWAM Spain project defined main principles for a decision making process where policy makers, experts and stakeholders could collaborate to define a viable radioactive waste management policy.

Mr. Le Bars observed that the current Spanish situation raises a number of questions. On the national level, the direction of radioactive waste management policy is defined by the national Plan, which is periodically revised. It is an open question as to how the national planning process could integrate the input of all major stakeholders. While the role of the main actors is clear, they seem to have difficulties in proceeding from “more communication” to “collective learning” and the recognition of “civil society”.

Mr. Le Bars outlined three possible extreme scenarios. The first is the “no decision” scenario (similar to the German status quo), where neither the government nor the industry wants to make a decision. This situation could be interpreted as a compromise between environmentalists and utility companies to wait for the social maturity of final disposal. Under this scenario, long-term storage capacity will be necessary, which could be built at a low financial and political cost, at NPP sites. This scenario is viable since nuclear industry still exists with the competencies needed to maintain and oversee on-site storage. The second scenario may be called “ethics and business” (the Nordic way). In this scenario, government and industry share the willingness to close the fuel cycle and not to transfer responsibility to next generations. This high-cost scenario leads to decisions on establishing a disposal facility and the negotiation of a contract between the government and the host community/ies. Scenario 3 is described as an “ambiguity scenario” (as seen in most of Europe). It is characterised by a strong willingness of industry and government to close the fuel cycle, but also by the wish of nuclear industry to minimise public influence and limit open debates. The final solution to the problem is, in a way, left to a willing municipality. This scenario may eventually lead to Scenario 1 (no decision), or Scenario 2 (if the radioactive waste management issue becomes sufficiently mature in society). Finally, Mr. Le Bars judged that Scenario 2 is unlikely under the current Spanish conditions. At the national level, the search for driving forces to boost decision-making and siting processes continues.

**Thomas Webler**, Professor, Antioch New England Graduate School, gave voice to the opinion that the workshop and the municipal visit offered a comprehensive perspective on the Spanish situation. He appreciated the good working atmosphere of the meetings, the authentic interest in an open dialogue, and the opportunities offered for people to learn from each other.

Professor Webler analysed the Spanish situation from the perspective of public involvement and found many strengths. He judged that one of the main strengths of the present approach is that the problem of HLW disposal is seen as a societal problem, rather than the problem of Enresa. In addition, there appears to be shared agreement on the problem and how to solve it, i.e., there is widespread support for establishing a centralised storage facility. Another strong point is that some key stakeholders (especially AMAC and Enresa) are very active and take a collaborative approach to solving the problem. They are also engaged in international projects aimed at dialogue and learning. It is also advantageous to have AMAC as project leader since it comprises host communities and

neighbouring communities as well. A further advantage is that, at this stage, no timetable is imposed upon the process. Finally, since technologies of interim storage are well understood, there are no technical uncertainties to resolve.

Professor Webler also called attention to the points of vulnerability of the Spanish program. He demonstrated that there are several weak points in the proposed process, and he suggested these be remedied by explicitly defining the decision-making process. Regarding the involvement of the local public, both the formal authorisation process and the EIA process are highly formalised and may not offer citizens adequate opportunity to participate. There is not adequate clarity on how communities volunteer to host a facility (by a vote of elected officials, by referendum, etc.), how they can withdraw, and what will be role of elected leaders, neighbouring communities and regional governments in such decisions. All of these decisions require public deliberation at many levels of governance, but the structures to enable these sorts of discussions do not appear to be in place. A further weakness is that several important players (the nuclear industry, the regulator, the Spanish Nuclear Energy Forum, the Spanish Nuclear Energy Society) do not seem to be involved in developing the siting process. Professor Webler also emphasized that, for the process to success, governmental agencies will need to demonstrate lasting commitment to seeing this process through to its own end. Achieving this commitment up front should be a high priority.

Professor Webler concluded that rules of deliberation and decision-making need to be clearly defined. Research has shown that processes such as this are more successful when they offer stakeholders and citizens multiple and diverse opportunities for involvement, and responsible organisations are committed to a constructive collaborative relationship to solve the problem. He endorsed the plan of having a participatory deliberative process overseen by a committee appointed by Parliament, if they are given independent oversight and adequate budgetary resources. Finally, he emphasized the need to focus on the realization of effective political deliberation among stakeholders at the level of municipalities.

### **Workshop Session 6: Closure**

*Session 6 included the final addresses by FSC leadership and workshop organisers.*

**Janet Kotra** from the US Nuclear Regulatory Commission indicated that she learnt important lessons about the local uniqueness and cultural specificities of the Spanish situation. At the same time, the country workshops also show that the various cases have important commonalities, such as what creates and destroys trust. They also share the basic idea that the ultimate goal is to protect public health and safety. Ms. Kotra expressed her thanks to the Spanish hosts and the NEA Secretariat for the organisation, and to the speakers, moderators, rapporteurs, and all participants for their cooperation.

**Claudio Pescatore** from OECD/NEA applauded the active participation of all, as well as the opportunity for learning. He reported that the ideas elaborated by the FSC are being transferred also to other groups in radioactive waste management, particularly the Working Party on Decommissioning and Dismantling. The Vandellós example was very important to that effect.

**Jorge Lang Lenton** from Enresa said that the workshop had confirmed his view that the municipalities to be affected by the storage of spent fuel should play a key role in decision-making processes. The opinion of these communities should be fully respected when planning for the establishment of a storage facility. The siting process will create a big challenge for all stakeholders, including politicians, municipalities, civil society organisations and Enresa. Hopefully, the process will be a success in the exercise of democracy.

**Carmen Ruiz Lopez** from CSN expressed her thanks to participants for the good discussions. She said that she had not only learnt a lot but also enjoyed the vibrant meeting. She thanked the local hosts for their hospitality.

**Josef Castellnou**, Mayor of Hospitalet i Vandellós, expressed his belief that his community is trying to solve a problem which is shared by many countries. Local stakeholders are looking for a solution the central elements of which are safety, information, economic development and trust.

## INTERNATIONAL PERSPECTIVE

### NEA SECRETARIAT

#### **Changing concepts of fairness and striving for robustness**

The Spanish workshop of the FSC provided further confirmation of the trend, observed in other OECD countries in the field of decision making for radioactive waste management, towards moving from a technical-hierarchical approach to a combined societal-technical approach.

The failed siting process of the HLW disposal facility was a typical case of the technical-hierarchical approach, characterised by strict government pre-emption of local authority, limited public access, and a strong reliance on technical criteria. For the Vandellós-I dismantling the implementer applied an approach that puts into the forefront negotiations with the local communities concerning economic development and oversight. This shows that important lessons had been learnt from the earlier experience. The current recommendations from the COWAM Spain initiative go a step further and combine additional elements involving not only the local but also all the intermediate levels of government up to the national one, as well as clearer protocols for the role of safety, information and transparency, public participation, sustainable socio-economic development, and the principle of responsibility. In accordance with FSC findings, COWAM Spain too recommends finding a licensable site that the local and regional actors consider both safe and acceptable, instead of seeking a technically optimal site.

#### **Roles and responsibilities of actors**

##### *Who holds the ultimate management responsibility?*

Different countries use different models for assigning responsibility for the management of high-level radioactive waste. In Canada, Sweden, and Finland the responsibility lies with the waste generators; in Belgium, and the USA it is the responsibility of the national government. In France it is the responsibility of the national government, but long-term liabilities still lie with the industry. Interestingly, in Germany it has been proposed recently that responsibility for siting and operating a radioactive waste management facility be transferred from the federal government to the nuclear industry; whereas in the Netherlands this responsibility was transferred recently from industry to the government. The latter move was made in order to allow for a century-long period of interim storage, which is a period over which government stability is felt to be greater than that of industrial operators. In Spain, after the decision to favour an interim-storage facility as a first step, Enresa similarly has been made closer to government than before.

*The role of the regulator*

A widely supported view among stakeholders is that strengthening the role of the regulator is desirable. A trend towards viewing the regulator as the “people’s expert” can be observed in a number of countries (e.g., Sweden, Finland, Canada).

*The role of local committees and of nuclear municipalities*

There also seems to be general agreement that Local Information Committees – the creation of which is prescribed by Spanish law – have an important role to play in all phases of facility design and operation. Local committees have been functioning in a number of countries. Their functions may include transferring information between implementers and local citizens, advising decision makers, and planning facilities or socio-economic development concepts.

An important element of the Spanish institutional scene is AMAC, which hitherto has played, and intends to continue to play, a very active part in the planning of the decision-making process, in the development of Local Information Committees and in representing community interests. The proactive role of AMAC provides confirmation of an earlier observation by the FSC: namely, that local communities that find themselves *de facto* hosts of radioactive wastes are likely to become active players in decision-making processes, including proposing solutions for radioactive waste management.

*Vandellós-I dismantling: an important example of application of the three “pillars of trust”*

The workshop provided the opportunity to review and appreciate the Vandellós decommissioning project, a rare complete waste management project that, in fact, was instrumental in enunciating the three pillars of trust that the FSC embraces: Safety, Participation, and (local) Economic Development. The Vandellós-I decommissioning project exemplifies how the three principles were satisfied.

Each of these three pillars has particular meaning for the individuals making up the communities affected by decommissioning and dismantling, as well as for the institutions involved in this activity. *Safety* is necessary for any individual to be able to act, take decisions and make use of his/her freedom. Safety during the whole lifetime of a project is paramount and should constitute as small a burden as possible on both current stakeholders and those who will enter the scene at a later time — including future generations. Assurance of safety, e.g., through the provision of adequate information, including plans for dealing with emergencies, is essential for communities in the locality of a nuclear facility.

A decide-announce-defend policy is not conducive to sustained progress. *Participation* in decisions is the effective and best way forward for site operators closely to involve local politicians or community leaders, and to co-operate with any local committees set up to oversee the community interests. This means providing them with transparently valid information about plans and programmes, living up to commitments, and being constantly available to answer questions and hear comments. It also means providing valid information on safety and environmental matters including waste management and giving full consideration to concerns about the effects on society such as loss of employment, the need for alternative economic activity, or future use of the site and about compensatory benefits for the community. At the same time, because decommissioning of nuclear facilities, and nuclear power plants especially, has more than just local dimensions, questions should be expected on links to the national energy and radioactive waste management policies. A clear structure of actors and their roles is helpful to situate national and local responsibilities, and should be broadly publicised.

All techniques for communication have their place: conventional meetings, seminars, debates and provision of information packages for local discussions to television programmes and websites, supported with "chat-rooms" if appropriate. Timeliness is a key factor. Communities where facilities are shut down have additional special communication needs as a result of termination of local employment. The employees of the phased-out facility are special stakeholders who may become a resource in the subsequent dismantling phase.

*Local development* is the final pillar. While the sustainability of the host community has not always been a priority for traditional industrial operators closing down an automotive or manufacturing plant, there are demands on the nuclear sector to ensure high socio-economic potential and quality of life in the host community. Communities are eager to take part in deliberations about the suitability of decommissioning, to see the land restored to open and productive usage if the plant is dismantled, and to receive assurances of different natures that their economic viability will not falter. An example may be drawn from the "sister" area of long-term radioactive waste management, in which stakeholders see community sustainability funds as an important instrument.

The final proceedings of the Spain workshop of the FSC will provide a useful overview of the lessons learnt from the decommissioning of Vandellós-I from the point of view of stakeholder confidence.

#### *Sustainable development*

The COWAM Spain study comparing the efficiency of economic instruments to advance sustainable development in nuclear communities vs. municipalities in mining areas is inspiring. Funds transferred to communities ought to be a means to promote socio-economic development rather than simply facilitate local acceptance of the facility. Funds should thus be earmarked appropriately.

#### *Final remark*

Overall, the Spanish workshop offered a well-rounded perspective on the inclusion of stakeholders in decision-making, and the atmosphere of the meetings was conducive to an honest and open exchange of ideas. The continued presence of AMAC members including the mayor of Hospitalet contributed to rooting the workshop in local life and actual experience.