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RESEARCH BRIEF

**Local Liaison Committees and
National Association of Local Liaison Committees:
the French experience**

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Introduction

In the context of the governance of nuclear activities, especially in the field of the radioactive waste management, the self-structuring of civil society is a necessary condition of the citizens' action. The experience of French "Commissions Locales d'Information" (CLIs) and their national federation the "Association Nationale des Commissions Locales d'Information" (ANCLI) represent an interesting and original example of local actors empowerment.

In France, Local Information Commissions (CLI) are attached to most of the nuclear sites. These Commissions are pluralistic dialogue forums gathering various types of local actors (elected representatives, NGOs, local experts, trade unions and other local organisations) in order to facilitate dialogue of local actors with public authorities and operators. They address a variety of issues linked to the safety of the nuclear site and its impacts, including radioactive waste management issues.

The first CLI was created in Fessenheim in 1977. In 1981, the act of the Prime Minister of December 15, 1981, known as "Circulaire Mauroy" opened the way to the official creation of CLIs in the vicinity of nuclear installations by Regional Councils. The 2006 Law on transparency and security in the nuclear field included provisions on the organisation, role and funding of the CLIs and reinforced the legal basis of their missions. Between the creation of the Fessenheim CLI and the creation of the most recent one in 2001, about 30 CLIs were created. They represent a diversity of contexts and experiences that sheds light on the issue of the contribution of local actors to safety and protection of people and the environment around nuclear sites.

CIP Methodological Task Force prepared a case study on CLI experience to respond notably to the interest of the Romanian Stakeholder Group who works with the perspective of setting up a local commission for the nuclear power plant and the project of waste disposal. The case was also a major input to investigating and characterizing the contribution of local actors to safety, which is a transversal issue addressed in CIP.

The outcomes of COWAM 2 show indeed that the safety of a radioactive waste management site depends not only on the quality of its technical conception and implementation, but also on the quality of surveillance of the facility and of its impacts and on the development of a "safety legacy" (know-how, procedures, resources, safety culture ...). In particular, COWAM 2 has shown that local communities play a key role both for the continuity of surveillance and monitoring and for the development and transmission of the safety legacy from one generation to another. Accordingly, the quality of the follow-up of a radioactive waste facility partially depends on the capacity of the local communities surrounding the site to contribute to the surveillance of the facility in the short, middle and long term.

The case study reflects the fact that local communities are not simply concerned by nuclear waste management because of a site selection process for high level waste. Their interest is much wider than that, and covers a wide variety of categories of waste and issues from the

first question of waste production to the long term surveillance of a waste management facility.

This research brief is based on the analysis of the history of the CLIs and ANCLI and on several case studies related to specific actions carried out by some CLIs and by ANCLI. The information about the history of the CLIs and ANCLI and about the case studies was gathered through desk studies and a set of interviews with members of several CLIs and of ANCLI directly involved in the considered cases.

The case study includes the following chapters:

- Part 1 : An history of the local commissions and their national association reports the evolution of local commissions in the past 30 years, and the development of a notion of community-based citizen-wise oversight
- Part 2 : several local case studies illustrate the practical action of local commissions
- Part 3 : this part explains the activities of the national association to structure the voice of local commissions and represent their views and concerns in the front of national institutions. The chapter reports the preparation of a White Paper on the governance of nuclear activities by ANCLI in 2005, from the local point of view
- Part 4 : the involvement of local commissions on issues related to waste management has much evolved in the past fifteen years; this chapter reports how the local commissions got to show an interest on these issues and established their own capacity to address them
- Part 5 : a transversal analysis is proposed to encapsulate the main lessons learnt from the Local Commissions' experience and characterize their contribution to safety

Methodology

This research was conducted in partnership with ANCLI. It builds on different sources:

- ANCLI public and internal documents (White Papers, reports,...)
- Interviews of ANCLI staff
- Existing regulation (Mauroy circular, 2006 laws,...)
- Local case studies were prepared by local commissions in the framework of an IRSN study in partnership with ANCLI with the purpose to reflect the field work of local commissions and illustrate their role in the governance of nuclear activities. These case studies were made available to CIP by IRSN and ANCLI.

For Part 5, an analytical grid has been worked out in order to analyse and characterise the process of mobilisation of civil society actors in France through the CLIs and ANCLI, as well as the modalities of information and participation implemented in this framework. The experience of the CLIs and ANCLI is at the crossroads of a dynamics of a community-based mobilisation (initiated by civil society actors) and of the progressive development of an institutional system of participation and information. This dual nature necessitated resorting to an adapted framework of analysis which allows considering the CLIs and ANCLI under these two angles. The detailed methodology is explained in introduction to this Part 5.

PART 1: HISTORY OF THE LOCAL INFORMATION COMMISSIONS (CLI) AND THEIR NATIONAL ASSOCIATION (ANCLI)

A progressive structuring of civil society

I - The Local Information Commissions (CLI), from a role of information relay to a role of monitoring

I - 1 The creation of the CLIs

In 1974, the decision to develop widely electro-nuclear energy in France taken by Prime Minister Pierre Messmer, as an answer to the oil crisis, is not much debated within the national institutions but is the subject of strong debates in the civil society, notably in the surroundings of the proposed nuclear sites. In some sites, strong opposition rise against the building of nuclear power plants. This is in particular the case in Fessenheim (in the Rhine plain), where the protests of local population and local elected representatives lead to the setting up of a Local Monitoring Commission. Failing to obtain the withdrawal of the project, NGOs and local elected representatives get a tool to monitor the operation of the site. This precedent becomes a model for the creation of other Local Information Commissions on the whole French territory. Born from opposition to nuclear energy, the Local Information Commissions however have to prove that they purpose is neither to protest nor to reassure, but to exert citizen vigilance and monitoring facilities which have impacts on the environment and on the living conditions of the local populations. Tracing nearly thirty years of history, may we say now that they have demonstrated their capacity to do so?

I - 2 The Mauroy Circular

Following the example of Fessenheim, other local communities hosting a nuclear facility, like Saint-Laurent-des-Eaux or Romans-sur-Isère, set up Local Information Commissions at the end of the 1970's.

The key role of these Commissions is recognised on 15th December 1981 by the Circular issued by Prime Minister Pierre Mauroy, which institutionalises the CLI and calls for their creation in all important nuclear facilities, in particular the nuclear power plants. This Circular is issued in a context where the decentralisation laws of 1982, which redistribute responsibilities between the State, the regions and the local communities, are under preparation, and asks the Prefects (the representative of Central state authority at the level of a Department and a Region) to anticipate this evolution. This Circular has no compulsory character, but it invites the Prefects to favour, if not dialogue, at least the exchange of

information between the different stakeholders, the elected representatives and the population. It thus follows the recommendations of the Parliament, which stressed the necessity of such exchanges during the debate on energy policy in 1981.

The setting up of a CLI is a voluntary initiative of the concerned Department Council, in link with the concerned Members of the Parliament and the elected representatives of the concerned local communities, and with the Department Councils of neighbouring Departments if they are also concerned by the nuclear facility. It must correspond to a demand of the population and of the local elected representatives, which was also the case for the CLIs which were created before the Mauroy Circular. Each CLI may choose freely rules and procedures adapted to the local situation, but its membership has to include the widest variety of local actors. At least half of the commission should be composed of elected representatives (mayors, members of the Department Council, Members of the Parliament), including notably the most concerned ones. The local commission should also be open to all interested "living forces" of the territory (representatives of trade unions, industries, agricultural organisations, environmental NGOs ...). It may also include qualified personalities (e.g. academics) chosen according to their competences.

The Local Information Commissions as defined by the Mauroy Circular is a territorial body, composed of elected representatives and of a wide panel of citizens. Its mission is both to inform the citizens and to monitor the impact of important nuclear facilities.

In order to allow exchanges of information between the different CLIs and dialogue between these Commissions and the government, a national conference of the presidents of CLIs is established (cf. chapter 2 below).

Although setting up a CLI is not a legal obligation, the Department Councils generally follow the recommendations of the Mauroy Circular. Most of the CLIs are chaired by the President of the Department council, a Department Councillor or a local elected representative. CLIs are more seldom chaired by a qualified personality or by the Prefect (in the absence of an agreement on the chairmanship).

The CLIs are gradually set up in France and their creation carried on during about thirty years, following the creation of new nuclear facilities. There are currently about 30 CLIs; the most recent one was created in 2001¹.

I - 3 The CLIs: a pluralistic assembly

The CLIs are defined from the beginning as pluralistic bodies by the Mauroy Circular, which enumerates the categories of actors which should be included. Pluralism should reflect the diversity of local stakeholders, as a complement to the logic of elective representation. NGOs, trade unions, and territorial social and economic actors are invited to participate, while half of the commission is composed of local elected representatives.

The CLIs are composed of four colleges: elected representatives, social and economic actors, environmental NGOs, and qualified personalities.

¹ CDI of CEA Cesta (Departmental Commission of Information attached to the Center for scientific and technical studies of the Atomic Energy Commission)

From one CLI to another, the proportion of the different colleges may vary, but the elected representatives (in particular the local ones) constitutes the majority of the CLI, as they represent the territory in a representative political configuration. The other colleges also are of key importance.

NGOs are often an important driving force of the CLIs. Most of the NGOs represented within the CLIs are ecological NGOs affiliated to a national network (France Nature Environment, Friends of the Earth ...). Some of them explicitly aim to phase out nuclear power. Other NGOs are focused on the protection of living conditions and health of populations and consumers. The representatives of NGOs engaged in the CLIs are mostly volunteers who give up time, and sometimes personal money, to participate into the work of the CLI, which may limit their actions. However, their engagement contributes to the vitality of all CLIs.

A nuclear facility is of outmost importance in the activity of a territory. It is a matter of interest for the economic world because it represents an economic force and operates near other activities which depend on the same environment. Industrial and agricultural circles are concerned by both economic and environmental impacts are represented into the CLIs. More specifically, representatives of trade unions play a special role within the CLIs insofar as they most often work in the nuclear facility itself and are able to assess issues concerning regulations or safety. Moreover, they are able to anticipate any change in the organisation (be it technical or human) likely to have consequences in the fields included in the scope of the CLI. They are therefore resource persons for the CLI. Some representatives of trade unions are in addition members of the Health and Safety Committee (CHSCT) of the nuclear facility and are particularly aware of nuclear safety and radiation protection issues. They have the capacity to understand the facility in a multidimensional way (economical, social and technical).

As for "qualified personalities", the term is a generic word which designates any person whose competences may constitute an asset for the fulfilment of the missions of the CLI. Qualified personalities may include nuclear experts, but beyond scientific and technical expertise, competences in law, communication, organisation, writing, economic or social field may also be necessary for the CLI. Their knowledge but also their methods and networks are valuable resources for the CLI. As they are able to synthesise, analyse or translate into everyday language a lot of scientific and technical information given by the operator, the public expert body (i.e. the Institute of Radiation Protection and Nuclear Safety) or the Nuclear Safety Authority (ASN). The role of qualified personalities is at first to support the questioning and monitoring role of the CLIs. The main difficulty posed by this college is its limited reservoir of available competences since the development of the necessary competences is a long and difficult process and since it is uneasy to combine an intense professional activity which requires a high level of competence with time and energy consuming engagement into associations.

Beyond the members of the four colleges which were presented above, the CLI also include invited members like the operator of the nuclear facility, representatives of the Nuclear Safety Authority, but also local divisions of state administrations like the prefecture or the regional direction of research, industry and environment (DRIRE). Unlike full members, they do not have voting right and speak on an advisory basis. The size of the CLIs is variable, from about sixty members in the CLI of Golfech to 120 members in the CLI of Nogent-sur-Seine, or even more in other CLIs. Being by nature open bodies, the CLI can have an important number of

members participating to the General Meetings and a more reduced number of active members.

A CLI organises General Meetings once or twice a year, in the presence of the operator and of the nuclear safety authority in order to discuss the safety of the operation of the site and to follow up topical issues (e.g. periodic inspections, environmental studies, incidents ...). If needed, extraordinary General Meetings can be called. The main orientations are often decided by the executive committee or the steering committee of the CLI, while specialised sub-commissions are set up to deal with specific concerns (follow-up of the impact of the nuclear power plant, radioactive waste, ...). In fact, each CLI organises its concrete work according to its own needs.

I - 4 The CLIs in search of a model of monitoring

As pluralistic body which reflects the diversity, or even the contradictions, of a territory, the CLIs relay the questions and expectations of local actors and fulfil, from their creation, a mission of information and monitoring of the nuclear facility, as provided for by the Mauroy Circular from 1981.

The mission of information of the CLIs seems clear at first glance but is nonetheless complex or ambivalent: What is the source of the information ? What is the content of this or that piece of information? What is its use? To whom should it be diffused and how?

In this context, the mission of the CLIs is to provide society with elements likely to enlighten it about the operation of the nuclear facility: everyday operation, impacts, possible incidents, technical choices ... But a piece of information is not a simple piece of data: it is a piece of data which has a meaning, not only for the person who generates it, but also for the one who receives it. The information given by the CLIs must therefore not only be valid (true), but also relevant for the mission of oversight the CLIs are entrusted with (i.e. correspond to a questioning).

The operator and the Nuclear Safety Authority are the first source of information of the CLIs. However, the CLIs have many times expressed the fear of being "just a cog in the machine", that is, being only a passive relay in a position of communication rather than of information. The move from communication to information necessitates taking into account the questions posed by the local actors, but also the will to find the adequate pieces of information. Finally and above all, it implies for a CLI to be an autonomous actor in the field of the monitoring of nuclear facilities. The CLIs which succeeded this move have thus developed specific know-how:

- translating the practical questions of the civil society into subjects of technical discussions;
- asking questions proactively rather than waiting for pieces of information;
- being tenacious and continuing asking questions until the answers are given;
- being able to examine the answers and assess their degree of relevance and truthfulness;
- finding other sources of information if necessary;
- building the answers by oneself if need be.

The CLIs use various media to pass information to the population: newsletters, press releases and direct exchanges during public meetings.

Developing an autonomous information action, with some distance with the communication of the operator and of the authorities, necessitates engaging into the monitoring of the nuclear facility. Monitoring is thus a full-fledged mission of the CLIs.

The CLIs pay attention to a wide variety of issues: respect of the norms (composition of the discharges, temperature of the discharged water ...), periodic inspections, environmental monitoring, discharge and take authorisations, risk factors, technical innovation (e.g. the EPR), changes in the workforce, the equipment or the methods, but also everyday activity of the facility. Monitoring the activity of the power plant is a multiple task which requires technical competences, reliable sources of information, but also a capacity of vigilance over the facility and its activity. The reports of the operator and of the Nuclear Safety Authority are a first base but need to be complemented by other sources of information (Committee for health, safety and working conditions, independent measurements ...) which allow the CLI getting the answers to the questions it has posed.

The CLIs carry out several forms of monitoring, including environment and health monitoring, health impact monitoring, and vigilance regarding the respect of regulations. In general, the quality of monitoring, as well as the quality of information, depends on the capacity of the CLI to take up an issue, both from an organisational (internal dynamics, collective willingness, efficient organisation ...) and technical point of view (available competences, resource persons at the local or national level ...), but also from a political point a view, that is, the capacity of the CLI to impose these issues upon other actors, in particular the operator, who may be reluctant to be confronted to questions sometimes considered as intrusive. This capacity may exist from the creation of a CLI, but is most often acquired in the long term, from experience, or following a crisis.

I - 5 Awaiting status and means

The CLIs have progressively proved their competence and the relevance of their mission of monitoring. They have demonstrated their capacity to question the operation of nuclear facilities, with the plurality of points of view brought by the different colleges. However throughout their development during the 1980's and 1990's, the CLIs faced practical difficulties in the exercise of heir missions.

The members of the CLIs are volunteers. The efficiency of their actions, in particular in the field of monitoring, strongly relies on the availability of scientific, technical and administrative support (secretariat). The State fully funds the communication actions, while expertises and studies are supported only up to 50 %. The running costs of the CLIs are mainly assumed by the local communities. The ability of the CLI to commission counter expertises strongly depends on the support of central administrations.

The CLIs struggle to obtain recognition of their efforts. For important events, like public inquiries, they are absent or even put aside, from the decision process. This reflects the more general issue of the absence of a legal status fro the CLI, despite the Mauroy circular.

The CLIs have had great expectations with regard to the Bill on nuclear transparency and safety both as regards the issue of resources and of legal recognition of their role. This Bill, the first version of which was proposed in 1998 took ten years to be voted by the Parliament. The CLIs took advantage of this long period to issue a White Paper in which they took stock of their experience and voiced their expectations (see Part 3). The main demands of the CLIs are clear funding schemes, a clear definition of their status and mission, and public recognition of their role.

The active role played by the CLIs in the drafting of this Law and, more generally, the growing momentum of their actions on the national arena, only could occur thanks to the establishment of horizontal links within a network of CLIs and thanks to the creation of a national association, ANCLI.

II - Setting up and consolidation of the National association of Local Information Commissions (ANCLI)

II - 1 From the conference of presidents of CLIs to ANCLI

The CLIs are primarily local organisations. Their missions of information and monitoring concern a particular facility and directed towards local populations. However, in order to fulfil their missions, the CLIs may need to exchange information or to be represented at the national level. To that end, the Mauroy circular provided for a conference of presidents of CLIs, to be held at least once a year. The conference can "issue any opinion and recommendation, notably in view of improving information of the public on the major energy facilities. The Government will consult [the conference] on the general directions of the reform projects for procedures concerning the major energy facilities."²

Until 2000, the conference of presidents of CLI is the only occasion for the CLIs to gather. It is organised by the nuclear safety authorities, in cooperation with the executive committee of the conference. This conference however limits the exchanges between CLIs to their presidents. It thus does not fully reflect the experience of the CLIs, which is marked by pluralism and multiple interactions. Moreover, it lacks autonomy, as it is organised by national public authorities. For these reasons, the executive committee of the conference of presidents of CLIs creates the National Association of the CLIs (ANCLI) on 5th September 2000.

The general directions of ANCLI are the following:

- Favour exchanges of experience and sharing of information between member organisations;
- Define a representation of all the CLIs;
- Contribute, in an independent way, to the management of ANCLI's website;
- Establish relations with national (ministries, Institute of Radiation Protection and Nuclear Safety) and international organisations;
- Offer logistic support to the CLIs;
- Organise various pedagogic initiatives for the CLIs (visit of sites, exhibitions ...);

²Quotation from the Mauroy circular

- Commission expertises and studies about any issue linked to environment protection and nuclear safety.

Any CLI may join ANCLI. The people representing the CLI within ANCLI are freely chosen by the CLI. Each member CLI pays a yearly subscription. In addition to these subscriptions, ANCLI's first source of funds is the grants allocated by the State (in particular the Nuclear Safety Authority) and the local communities.

The Board of Directors of ANCLI meets twice a year. It submits proposals of directions to the General Meeting. The duties are dispatched between the President and two Vice-presidents. Two distinct programmes have been defined since 2000: an "action" programme (visit of sites, studies, conferences ...) and a "communication" programme (newsletter, website ...). A correspondent is named for each programme.

ANCLI has taken the legal form of a non-profit association and organises the exchanges between the CLIs in an autonomous way.

II - 2 The first action of ANCLI: federating means and competences to inform and investigate

II - 2.1 The setting up of a network of CLIs

The members of ANCLI are all volunteer members of a CLI. For the CLIs as well as for ANCLI, hiring a full-time secretariat is a necessary prerequisite for exerting their missions of information and monitoring, which require being able to examine cases and relay information between the volunteer members on a day to day basis.

Thus, ANCLI hires permanent staff (project managers and a secretariat). It provides follow-up of all the activities of the ANCLI and ensures traceability of all the activities of ANCLI (meetings, decisions taken ...). This staff constitutes a visible contact point within ANCLI, which both receives and disseminates information, and plays the role of a memory of ANCLI. The members of this staff are located in the different member CLIs.

II - 2.2 Pooling resources in order to raise and investigate issues

The CLIs are spread out on the whole national territory and ANCLI contributes to organise them as a pluralistic actor, on the one hand, by favouring meetings and exchanges (e.g. through events like the inter-CLI seminar) and, on the other hand, by gathering them to investigate issues of common interest for the CLIs.

In order to fulfil their mission of information and monitoring, the CLIs need to develop the necessary competences to investigate issues and produce autonomous opinions. The access to external (private or public) expertise resources or the development of inner expertise capacities is one of the main concerns of ANCLI³. By pooling the resources and competences which are held by the different CLIs, ANCLI capitalises knowledge and expertise and thus strengthens the position of the CLIs.

³ See the first White Paper of ANCLI

ANCLI has taken initiatives to structure this pooling of resources and competences and define the directions of the follow-up that the CLIs wish to exert together at the national level.

The Scientific Committee of ANCLI

The Scientific Committee was set up on 5th March 2003 and constitutes the first initiative of ANCLI to structure the knowledge and competences of the CLIs. The mission of this Committee is to answer precise questions of the CLIs on technical or scientific issues. In particular, the Scientific Committee

- Advises and assists the CLIs and ANCLI in their expertises and scientific investigations;
- Favours the development of reflections and exchanges within the CLIs and promotes conferences and debates;
- Plays an advisory role for the drafting of the publications of the CLIs and ANCLI;
- Is, in the name of ANCLI, the interlocutor of expert committees of various French and foreign organisations.

The Scientific Committee can be seized by ANCLI or by the CLIs. It gathers diversified competences concerning nuclear issues, from hydrogeology to physics, as well as social sciences or epidemiology. Written requests of the CLIs are examined by the Committee, which carries out the study by itself (or delegates some members to support working groups) if the competences of its members allow it. The Scientific Committee also commissions studies to external experts on a regular basis. It can also answer the request of a CLI by recommending other types of responses better adapted than expert studies, and can give support to the organisation of working groups and seminars.

White Papers

In 2005, while the Law on nuclear transparency and safety was in the process of being finalised, the CLIs made the lawmaker aware of their 25-years experience and of their expectations under the form of a White Paper on local governance of nuclear sites (see part 3 for more details) so that it could be taken into account into the new law. In 2006, ANCLI issued a second White Paper on radioactive materials and waste and local communities. Both White Papers were drafted by working groups composed of members from different CLIs.

These initiatives aim to define a common vision of the CLIs about their role in the governance system. The White Papers outline shared directions for the CLIs and put forward their experience and their ambitions for the future to their institutional interlocutors. Thus, they both voice recommendations and expectations and sketch out a work programme.

The advisory Committee of ANCLI

The Advisory Committee of ANCLI was set up more recently to support the association in its reflection on the role of the CLIs in the governance of nuclear activities, which was started in 2005 with the first White Paper, and advise ANCLI on the strategic directions to take in this field. The members of this Committee are experts in fields such as environmental law,

governance of hazardous activities or radiation protection, and held institutional posts (Government, State Council) and have experience of inclusive governance processes, in particular pluralistic expertise processes. The Advisory Committee met for the first time on 25th September 2006.

Permanent working groups

The creation of permanent working groups since 2006 completes the above-mentioned initiatives. Through these permanent working groups, ANCLI autonomously takes up sensitive and topical issues which any CLI is likely to be confronted with: radioactive waste and materials, new reactors, post-accident issues, decommissioning, or ageing of nuclear facilities. The objective of these working groups is to answer complex citizen questionings which necessitate integrating scientific, technical, social, or even ethical dimensions of the issues considered. For this, the permanent working groups acquire by themselves the necessary competences, appropriate knowledge, initiate debates and more generally favour the development of questionings about the issue they investigate. To date, three permanent working groups were created on “radioactive waste and materials”, “European Pressurized Reactor”, and “territories and post-accident issues”.

The original feature of these groups is their capacity to investigate a specific issue on a steady basis. This facilitates the development of the competences of the CLIs on the issues they consider as a priority and empowers the CLIs. They thus become able to follow-up the issue, are aware of the evolutions of knowledge and of regulations, and express a relevant and well-grounded opinion as local actors.

Information and Communication

ANCLI carries out information and communication actions, such as

- organising site visits;
- organising conferences;
- issuing and updating data sheets for the CLIs and other organisations to which they want to disseminate information (e.g. schools, municipalities, universities ...);
- trainings for CLI members;
- issuing of ANCLI's newsletter, “Déclic”, since the first year of existence of ANCLI (2000);
- Developing and maintaining ANCLI's website. This website may be easily used as a template by the CLIs which want to create or revamp their own website.

II - 3 Reforming ANCLI's status in order to better reflect the pluralistic character of the CLIs

The reflections carried out by ANCLI leads it to reform its status in 2005. This reform is announced by the President of ANCLI, Jean-Claude Delalonde, in the newsletter of ANCLI on 6th December 2004. The change of status is made on 19th October 2005 during an extraordinary General Meeting of ANCLI, and is justified by the need “to ensure greater coherence to all initiatives by encompassing them into a long term process and by developing new directions of reflection, action and information”⁴. In order to “give a new dimension to he ANCLI”, it is decided to associate in a greater extent all partners concerned by nuclear risks management. For this, the new status of ANCLI structures its membership into 4 colleges corresponding to different categories of CLI members:

- elected representatives,
- environmental NGOs,
- representatives of workers,
- qualified personalities, experts and economical sphere

While setting up these four colleges, ANCLI wishes to better reflect the concerns of civil society on nuclear issues (health, environment, safety, economy) by gathering various points of view and competences on these issues, thus avoiding the traditional model of governance which would limit participation to experts or elected representatives. The principles which govern the organisation of ANCLI are those of transparency and pooling: each member CLI commits itself to provide the agenda of its main meetings, its publications, and its annual report. Reciprocally, ANCLI makes a similar commitment to the member CLIs.

Finally, ANCLI associates to its activities the non-member CLIs, on the one hand and, on the other hand, the institutional actors (State or operators), but stays in control of its organisation (agenda, decisions and votes are statutorily limited to full members).

The Board of Directors is currently composed of 20 members belonging to the four colleges. It is convened twice a year by the President of ANCLI, who is statutorily a local elected representative. The three Vice-presidents belong to the three other colleges.

The General Meeting gathers all the members of ANCLI. It is convened once a year to approve the accounts. The Board of Directors can convene additional General meetings.

⁴ Preamble of the General Meeting of ANCLI of 19th October 2005.

II - 4 Acting as full-fledged actor: participating and questioning

Through the Law on nuclear transparency and safety, the CLIs and ANCLI obtain the necessary resources to fulfil their mission of monitoring in an independent way. Moreover, the procedures related to the nuclear facilities give a statutory role to the CLIs and ANCLI in the processes of participation of information. With the support of the specific tools it has built (e.g. Permanent working groups, Scientific Committee ...) ANCLI thus establishes various links with the other actors of governance of nuclear activities in order to be informed, give opinions, trigger reflections, develop knowledge, empower the CLIs and question institutional actors.

II - 4.1 Which role in the institutional landscape?

ANCLI takes part into various official bodies in which it represents the CLIs.

On 24th October 2001, ANCLI takes an official role by participating to a meeting of the High Council for Nuclear Safety and Information (CSSIN). This council, created on 13th March 1973, is a pluralistic dialogue forum (its 38 members are chosen according to their scientific, technical, economic or social competence). Until the 2006 Law on nuclear transparency and safety, the CSSIN was consulted by the Ministry of Industry on the “arrangement to ensure good information of the population about safety, as well as in case of incident or accident in the facilities”. As provided for by the Law on nuclear transparency and safety, the CSSIN has been replaced in 2008 by a High Committee for Transparency and Information on Nuclear Safety, to which ANCLI now actively participates.

At its own initiative, ANCLI takes an active part to the debates organised in 2005 by the National Commission for Public Debate about radioactive waste management, on the one hand and, in the other hand, about the EPR. The latter public debate is soon blocked by an obvious conflict between the defence and industrial secret and the obligations of transparency, which leads numerous NGOs to withdraw from the debate. ANCLI supports the National Commission for Public Debate in finding ways allowing the NGOs to follow-up the EPR case while respecting the necessary confidentiality.

II - 4.2 A strategic process of partnership building

From its origin, ANCLI has direct relations with the Nuclear Safety Authority (ASN since June 2006, formerly the Directorate General for Nuclear Safety and Radiation Protection), which has historically encouraged the empowerment of the CLIs. The Law on nuclear transparency and safety and the directions taken by ANCLI however allows an evolution from a situation of strong dependency on the ASN (previously, numerous CLIs strongly depended on the grants of the Directorate General for Nuclear Safety and Radiation Protection) to relationships of balanced partnership, while the ASN nonetheless remains a dominant player in the governance of nuclear activities. Whereas the annual conference of the CLIs was formerly a conference of presidents of CLI organised by public authorities, it has now the form of a double event: a General Meeting of ANCLI, the agenda of which is defined by ANCLI and to which all CLIs (including non-member CLIs) are invited, and a conference

open to a broad public, which is co-organised by ANCLI and the ASN. The latter conference is an occasion for ANCLI to identify issues of interest.

ANCLI also takes part to the working groups set up by the ASN on various issues (post-accident issues, National Plan for the management of radioactive materials and waste).

In addition, ANCLI is engaged into a fruitful partnership with another key public actor in the governance of nuclear issues: the Institute for Radioprotection and Nuclear Safety (IRSN), which is the public expertise body in the nuclear field. On 31st January 2003, ANCLI and IRSN sign a cooperation agreement in which the IRSN commits itself to bring technical and scientific support to the CLIs and to ANCLI. From that moment on, IRSN and ANCLI set up a steering committee as well as joint working groups on the “access of the LCI to expertise” or on “health impact” of nuclear facilities. ANCLI and IRSN also lead reflections together on the governance of nuclear activities and on pluralistic expertise.

In order to favour the development and strengthening of the competences of the CLIs, ANCLI tries to identify the needs of the CLIs in terms of competences, knowledge and know-how and sets up tools which will be helpful for all the CLIs. The cooperation of ANCLI with IRSN and ASN falls within the scope of a wider process of multi-partnership building which potentially encompasses any competence or any organisation that may cooperate with ANCLI or help answering the questions posed by the CLIs. The development of partnerships and collaborations belongs to a wider long-term process in which ANCLI plays a role both upstream and downstream the CLIs. Downstream, ANCLI answers the immediate needs of the CLIs, and upstream, it anticipates these needs and favours the development of the CLIs' competences.

II - 4.3 Interpellation of institutional actors

In a letter of 25th May 2007 soliciting a meeting with the Minister of ecology and sustainable development and national planning to discuss the provisions of the 2006 law as regards CLIs, Jean-Claude Delalonde, President of ANCLI notes that “*the objective of the CLIs is to seek not necessarily consensus but rather the expression of the diversity of viewpoints of civil society actors in the nuclear field, because it is the condition of a genuine transparency*” He also expresses his will that “the Charter for the Environment⁵ would entail concrete results in the field”.

By making such kind of interpellations, ANCLI aims to acquire visibility in order to recall that the local actors – under the form of the CLIs – are competent and have legitimacy to voice their point of view in order to strengthen the monitoring of nuclear activities. While cooperating with the other actors engaged in the monitoring of nuclear activities, ANCLI is concerned about avoiding confusion of roles. It wishes to safeguard its autonomy, both in order to keep a critical distance and in order to avoid confusion between monitoring and control, as managing and controlling nuclear activities remain the responsibility of the operators and of the public authorities.

⁵ This charter has been incorporated into the French constitution on 28 February 2005 and aims to promote sustainable development and to integrate into the French legal reality a number of “environmental rights”. It is obviously connected with the Aarhus Convention (25 June 1998).

II - 4.4 Towards a European dimension

Since 2005, ANCLI has been carrying out, at the European level, exchanges of national and local experience and good practices.

In the field of radioactive waste management, ANCLI took part to the EUROSAFE Forum in 2006 (“radioactive waste management: long term safety requirements and societal expectations”, Paris, November 2006), and has participated to COWAM and COWAM 2 European research projects. ANCLI currently chairs the French National Stakeholder Group of COWAM IN PRACTICE European research project (2007-2009) and is a member of the steering committee of the project.

ANCLI is also at the origin of the EUROCLI initiative, which was officially started on 4th October 2006. This project aims to favour the setting-up of participatory democracy at local level in Europe in order to strengthen, in the nuclear field, the practical implementation of principles of transparency and dialogue. Jean-Claude Delalonde, the President of ANCLI, is the chairman of EUROCLI.

The EUROCLI initiative completes at the international level the other initiatives of ANCLI, which aim *in fine* to improve the global process of governance of nuclear activities, which is increasingly an international issue.

The 2006 Law on nuclear transparency and safety

The French law on nuclear transparency and safety was passed on 10th June 2006.

This law gives a coherent legal framework to the exercise, monitoring and control of all nuclear activities: from the operating license to the operation of nuclear facilities, including expertise, control, radiation protection, and information and participation of the public. Previously, nuclear activities were governed by different regulations, and only radioactive waste management was ruled by a law (the law of 30th December 1991 on research on radioactive waste management).

The law on nuclear transparency and safety established the Nuclear Safety Authority (ASN) as an independent administrative authority. This status responds to a will to shield the control of nuclear activities from the “pressure of the ministries”⁶. The ASN is composed of a college of five members, chosen for a six-year or a two-year term, who cannot be dismissed.

As regards information and participation of the public, the law gives three important provisions:

First, it gives to the CLIs legal recognition, rights, but also duties. It thus answers the strong expectations of the CLIs, who demanded to be granted the necessary resources to fully exert their mission of information and monitoring. The creation of a CLI for each nuclear site is now a legal obligation. The 2006 Law provides that the CLIs have “*a general mission of monitoring, information and dialogue in the fields of nuclear safety, radiation protection and impact of nuclear activities on health and the environment as far as the facilities of the site are concerned*”⁷. According to this law, the CLIs also “*ensure wide dissemination of the outcomes of its works under a form that is accessible to the great majority of people.*” Finally, the Law also determines precisely the membership of the CLIs: “*representatives of concerned Department Councils, Town Councils (...) and Regional Councils, Members of the Parliament elected in the Department, representative of environmental NGOs, of economic interests, of representative trade unions, of health professions and qualified personalities.*”

In the same article, the law establishes the federation of the CLI, which constitutes a legal recognition of ANCLI. The provisions which concern the CLI and their federation have been discussed with ANCLI, which took the initiative to make the lawmaker aware of the experience and expectations of the CLIs through a White Paper on local governance of nuclear sites (see part 3).

Finally, the Law creates the High Committee for Transparency and Information on Nuclear Safety (HCTSIN). This Committee is an independent body which gathers all categories of stakeholders (elected representatives, operators, NGOs, qualified personalities, trade unions, and State administrations) at national level. It is composed of 34 members appointed by decree for a six-year term. The HCTSIN has a mission of information, dialogue and debate on the risks related to nuclear activities and their impact on health and the environment and nuclear safety. It can address any issue related to transparency and information on nuclear safety. The opinions issued by the HCTSIN are made publicly available.

Two implementation decrees specified the modalities of implementation of the law as far as the CLIs are concerned. A first decree (n° 2007-1557 of 2nd November 2007) on nuclear facilities and control in the fields of nuclear safety and transportation of radioactive materials specifies the procedures to which the nuclear facilities are subject, as well as the role of the CLIs in these procedures. A second decree (n°2008-251 of 12th March 2008) specifies the new organisation and rules of operation of the CLIs and gives provisions concerning the federation of the CLIs.

The CLIs must ensure compliance with the provisions of the law and the implementation decrees before 1st January 2009.

Insofar as the new regulations strongly commit the Department Councils, who are responsible of the implementation of the CLIs, ANCLI initiated a process of information and awareness raising towards the territorial collectivities. ANCLI notably commissioned two legal expertises in order to determine the most appropriate legal forms that the CLIs should take and specify the rights and duties of the CLIs, of their presidents and of the presidents of the Department Councils.

⁶ Report of Jean-Yves Le Déaut, Member of the Parliament, on “The French system of radiation protection and nuclear control and safety: the long march towards independence and transparency” (1998)

⁷ The quotations are extracts from article 22 of the Law

PART 2 : CLI actions : an oversight from a local perspective

Local case studies

The four case studies below were performed by local commissions and discussed with peers during local meetings. The cases were made available to CIP by ANCLI and IRSN.

I - The historical value of lichen

I - 1 The case

Valduc is a French Atomic Energy Commission (CEA) secret defence facility situated north of Dijon. The site maintains the warheads of the French nuclear deterrent. Established in 1957, amongst the materials it uses is tritium. It is an agency of the Military Applications Division (DAM) and is therefore not covered by the so-called “Mauroy circular” officially establishing Local Information Commissions (CLIs). However, an Order was made on 5 July 2005 requiring it to have an Information Committee (CI)⁸. The site is relatively isolated, in a rural, sparsely populated environment.

In 1995, after repeated demands for information from a number of organisations about pollution coming from the Valduc site, the local council for the *Côte d’Or* Department commissioned a study from the Independent Research and Information Commission on Radioactivity (CRIIRAD) on the drinking water in the *Côte d’Or*, in order to determine the levels of tritium (which is emitted from Valduc in gaseous form). Despite the confidentiality clauses, CRIIRAD decided to release this study, which found tritium to be present. There was an outcry and in 1996 the local authority established a Valduc Liaison and Information Body (known as SEIVA), which functions similarly to Local Information Commissions. Gérard Niquet, Professor of Physics at the University of Bourgogne, agreed to act as President.

SEIVA set up a scientific committee and an “analysis” committee with the aim of undertaking research. These committees put forward suggestions for studies or research programmes to the executive committee, particularly on drinking water and food. This allows SEIVA to address local concerns, as with the present study on lichen.

I - 1.1 Historical questions

The Valduc plant has used tritium throughout its life. Pollution spikes have long been suspected, particularly after a report by the High Commission for Nuclear Energy (“Levels of radioactive and chemical contamination in classified CEA defence sites”, or the Pellat Report, 1998), which highlighted the fact that tritium waste had been burned in the open air in the

⁸ Order 2001-592

past. The CEA did not give any satisfactory response to direct questions on the nature and quantity of this waste. SEIVA therefore decided to reconstruct for itself the waste history of Valduc.

I - 1.2 Working in partnership

To achieve this objective, SEIVA planned to carry out a study on a bio-indicator. It learnt that lichen have a tendency to accumulate pollutants in general and tritium in particular. SEIVA contacted the Mycological Observatory of the *Saône et Loire* Department. It made the decision to work on lichen, which are currently being used to evaluate air pollution in urban areas. They are long-lived and easy to find and harvest, in sum, they are an excellent historical bio-indicator.

Mr Daillant, President of the *Saône et Loire* Mycological Observatory agreed to lead the study, on condition that the Observatory could make use of the results. SEIVA, the Mycological Observatory and the CEA entered into a partnership. As with previous studies, the CEA hoped to carry out its own tests on the samples collected. Analysis of the samples was undertaken by a German laboratory at the University of Göttingen on behalf of SEIVA. The samples were chosen according to the age and species of lichen, its proximity to the Valduc site and the prevailing winds.

SEIVA, for its part, asked the CEA to provide a historical summary of its tritium waste.

The lichen study involved a tripartite agreement (between SEIVA, the CEA and the *Saône et Loire* Mycological Observatory).

The study was commissioned in 2000, and the results were issued in 2001.

The study was 50% financed by the French Nuclear Safety Authority (ASN) and 50% by the *Côte d'Or* Departmental council. It cost 27000 francs (more than 4100 Euros) for 14 analyses of organically bound tritium.

I - 1.3 Results

Tritium was found at particularly significant levels – the areas near the site and/or subject to the prevailing winds showed greater accumulations.

This was a valuable study, raising a series of new questions and opening up many further avenues for research, given the variety and complexity of elements within its scope.

The results of the study were first presented to SEIVA's "environment" committee. The CEA also supplied an analysis of tritium concentrations in the atmosphere, but did not deliver the historical information on its waste requested by SEIVA. Nevertheless, a spike in atmospheric levels could be seen in the 1970s, confirming the findings of the lichen study. Mr Daillant chose to continue his work on lichen in the vicinity of Valduc independently of SEIVA. The "Environment" Committee decided not to be involved as this was a long term research project that did not relate to its scrutiny function. In his study, Mr Daillant reached a different conclusion to the CEA on the impact of waste emissions. In 2005, the academic decided to publish the results of his own work in the scientific press. These were picked up by the

general media, locally and nationally. The level of publicity led SEIVA to set up a new “environment” committee four years after the 2000 study, and to submit another request for information to the CEA to try finally to obtain its waste history. This time the centre provided the quantities of waste emitted between 1963 and 2004, confirming on the one hand significant tritium emissions into the environment in 1975 (around 100g) and on the other hand, a marked reduction in recent years (around 1g per year).

I - 1.4 Summary

Thanks to the lichen study, progress was made in a number of areas:

- For SEIVA: obtaining information about waste from the CEA and, the following year, employing an intern to continue working on the lichen.
- For the scientific community: discovering an important bio-indicator for tritium and the completion of research by the *Saône et Loire* Mycological Observatory, resulting in a scientific publication.
- For the CEA and the DAM: given that tritium is essential to the military use of nuclear technology, the discovery of this bio-indicator may be useful, particularly in the field of nuclear non-proliferation agreements. Lichen is simple to find and harvest and could, for example, confirm the presence or absence of tritium fairly easily, revealing the existence of a military nuclear programme.

I - 2 Comments by the CLIs

I - 2.1 A locally-engaged body

Thanks to its ongoing work, to which the lichen study contributed, SEIVA has achieved regional recognition and has succeeded in gaining the public’s trust locally. It issues an information bulletin regularly which goes to every resident near the site. It is regularly contacted with requests for information or research that the public cannot or does not wish to obtain from the Valduc nuclear plant. The lichen study definitely strengthened this trust.

I - 2.2 Force and perseverance

Relations with the nuclear plant seem quite difficult and remain largely characterised by distrust. Nevertheless, through perseverance SEIVA succeeded in getting the information it wanted. In addition, its work demonstrated the benefits of transparency to the CEA and the DAM and the potential for the site to establish a dialogue with its locality, despite its poor emissions history.

In conclusion, SEIVA distinguished itself by its willingness to take action in response to the deep concerns of civil society.

I - 2.3 Initiative and originality

SEIVA has been created as an answer to a distrust crisis which triggered a spontaneous mobilisation of local actors (the Department Council and some NGOs) after an alert from an external actor. It constituted a useful tool for local actors to address touchy questions identified by the study commissioned by the Department Council and bringing answers which credibility is based on the plurality of actors (members of the CLI) engaged in the works carried out and in the fact it constituted a clear demand of transparency to the operator.

SEIVA is one of the first Local Information Commissions or similar bodies to carry out this type of study, going beyond the concept of an “information service” as it is generally understood. In this case, SEIVA acted to equip itself with the tools necessary to obtain the answers it needed. To do this, it used the skills available to it internally, which allowed it to pose the relevant questions (how can we find out about past pollution levels? What are the potential indicators? etc.) but also to seek out additional expertise from other sources. As part of a network of local stakeholders it was able to respond to local needs and work together to identify the best tools for the job. On this occasion, SEIVA was able to collaborate with a foreign research laboratory, which provided an independent alternative to the Institute of Radiation Protection and Nuclear Safety (IRSN). In fact, the resources and skills of public institutions normally make them the only possible partner in this type of work –collaborations with independent or university laboratories are still quite rare. By engaging different experts, it is possible to adopt new perspectives and methodologies and to make use of a diversity of views.

The establishment of clear rules for the exchange of information between the operator, the local actors and the laboratory which performed the tritium measurements allowed to successfully carrying out the investigations despite the context of distrust between the local actors and the operator. This process also constituted a test for new ways of working between the local actors and the operator, adapted the local context, which proved their practicability.

In the final analysis, the Local Information Commission’s action revealed a new bio-indicator of nuclear activity, whose impact goes far beyond the initial local interest. The CLI has mobilised different external experts (CRII-RAD independent laboratory, mycological laboratory of the Saône-et-Loire Department, Göttingen laboratory) and has progressively built up its own skills (measurement campaigns, creation of an environmental commission in the CLI, hiring of trainees on specific research ...). These various expertise resources are all mobilised in the direction of a better assessment of the concentration of tritium in the environment and of a better follow-up of the environmental impacts of the nuclear facility. As a participant in the governance of the nuclear industry, its fundamental duty is to act as an engine of inquiry, to ask questions, get responses and to keep up the pressure, without necessarily getting involved in scientific studies or heavy-duty research programmes.

II - The Health Impact of Nuclear Installations: Establishing a register of tumours

II - 1 The case

II - 1.1 What is a register?

A register is a framework in which to collect all new cases of cancer in a given geographical area. The record is continuous, exhaustive, dedicated to the purposes of public health and must be implemented and updated by an appropriately trained team. In France, the geographical unit used is often the Department⁹ (although it can be the region), whereas more detailed lists can be drawn up at parish level.

These registers depend on:

- Health diagnoses made by “anapaths” (anatomo-histo-pathologists) who analyse tissue samples. They alone can confirm the presence of cancer, its type and stage.
- Information from medical files.
- Death certificates, other official documents.

A certain level of staffing is required: a doctor, one or two secretaries, two or three researchers, and a scientific director.

A register is different from an epidemiological survey. The latter is above all an “instantaneous” snapshot of the health of a population at a given moment. In contrast, a register tracks a range of data taken over the long term. Its utility, apart from identifying possible causal relationships, is to evaluate treatment and prevention strategies. Nevertheless, registers are much less common in France than in English-speaking and Scandinavian countries. In fact, geographical coverage in France is poor.

II - 1.2 The Gard Local Information Commission establishes a register of tumours

One of the most important parts of a Local Information Commission’s remit is to monitor the impact of nuclear installations on the environment and on public health. In the latter domain, the Local Information Commission in the *Gard* region conducted an epidemiological survey in the mid-1990s at the request of residents living near the nuclear plants. This survey, entitled “Epidemiological survey of the incidence of malignant blood disorders and thyroid cancers in children under 15 living near the Marcoule site” was carried out by a team of epidemiologists from Nîmes University Hospital. The results were published along with the limitations of the study. In conducting this study, the Local Information Commission was reacting directly to public concern. The study concluded that there was no particular problem in children. It detected no raised incidence of blood disorders or thyroid cancers.

After concerns were expressed when the Manche Storage Centre (CSM) was placed into its post-operation monitoring phase, the 1996 Turpin Report was the first to suggest establishing a register of the incidence of tumours around the facility. In accordance with its authors’

⁹ Translator’s note: roughly equivalent to an English county.

recommendations, Mme C. Lepage, then Minister for the Environment, allowed a Departmental register to be opened in *Nord-Cotentin*. In addition to a one-off survey of incidences taken in 1990, the Local Information Commission cited the *Nord-Cotentin* precedent when calling for a similar record in the *Gard* region. The Local Information Commission contacted a number of regional stakeholders directly, hoping to gather the funding required. A partnership was formed bringing together the *Gard* Departmental council, health insurers, NGOs and industry.

In creating its register, the *Gard* region took advantage of an opportunity that presented itself, but this was only possible thanks to a number of local assets: skilled individuals, infrastructure (for example, the University Hospital), and the existence of a similar register in the neighbouring Department of *Hérault*. In addition, although the *Gard* is not the only Department to have questioned the health impact of nuclear installations, it is a region where the potential impact of industrial and agricultural industries on public health has been a prominent issue, due to the nature of the regional economy. In fact, the questions on the impact of nuclear facilities were at the origin of the creation of the cancer registry, but it was the possibility to consider globally a diversity of risk factors (pesticides, chemical substances, radioactivity ...) which reinforced the relevance of developing this type of tool and raised the interest of the different partners and sponsors. In this respect, a number of organisations, in common with health insurers, have an interest in public health research. It is therefore perfectly possible to put together multi-agency partnerships and particularly to arrange joint funding.

The *Gard* register of tumours was established on the back of the epidemiological survey of cancers conducted in the mid-1990s, but it was not effectively implemented until 2001, due to the time needed to form these partnerships. The first results were not available until the following year. At this time, the register was waiting to be officially recognised by the national authorities. The usual long and complex qualification procedures were followed. This meant it needed to be cleared by the INSERM (National Institute of Health and Medical Research) scientific committee and by the Department of Health and the Institute for Public Health Surveillance, but also by the National Committee for Registers and the Consultative Committee on Data Protection in Research. The French Data Protection Agency (CNIL), also had an interest in issues of confidentiality.

II - 1.3 Problems with a register

Registers must satisfy a number of ethical, legal and scientific conditions. Absolute confidentiality is necessary, but the data as a whole should be made as widely accessible as possible. The part of the register containing names is therefore held on a computer isolated from the network with restricted access. In contrast, aggregated data is widely circulated. From a legal perspective, the status of the register has an impact on its future use. Most often, a “corporate” status has been adopted.

The issue of validity is one of the central challenges. Not only must a register be exhaustive, but diagnoses themselves must be confirmed by more than one route. This requires a range of skills and involves a significant amount of work.

The final issue raised by a register of tumours is the use to which it is put, as it can serve many purposes: pure “knowledge”, various forms of scientific research, prevention or management strategies. The register could also be of economic use, for example in insurance.

The budget for a Departmental register equates to a cost-per-individual of around 0.15 to 0.20 Euros.

Without doubt, any register of tumours must account for the choice of its particular methodology and feed into a wider public health project, supported by public institutions (universities, university hospitals, regional cancer centres, etc.).

II - 2 Comments by the CLI

II - 2.1 The Local Information Commission must be part of an active local network

For a register to be established, there must be a network of supporters working together and using each individual's skills and knowledge to their full. By collaborating with other research facilities, the problem of trustworthiness can be overcome as analyses are not carried out by a single contractor. The project cannot be carried out by a Local Information Commission if it does not belong to a local network. The regional dimension takes on its full importance in the medical domain. Studies on the health impacts of a particular industry must take account of the prevalent climate, lifestyles, economic activity and even the nutrition of a given region and, in this context, can make use of the different sources of information brought together in a local network. The Local Information Commission played a key role by giving the initial impulse to the creation of a register of tumours then federating a network of local organisations in the Department which was able to carry the action to a successful end.

However, the wider impact of this type of initiative as far as the whole French nation is concerned is still open to debate. It is clearly legitimate for a community to monitor the health impacts of nuclear installations sited within its region. These processes are not always supported by national institutions, who may not see the need for different registers in two neighbouring Departments, for example.

II - 2.2 Duration and visibility of the Local Information Commission's work

The health impact of nuclear installations, as with other potentially polluting industries, is of major public concern. By establishing a register of tumours, the *Gard* Local Information Commission is clearly fulfilling its monitoring and public information role in an exemplary fashion, relaying the voice of civil society that it represents. For all that, its role is largely under-appreciated.

A heavy burden is involved in establishing a register, which necessitates a partnership approach, as much in financial terms as in the provision of skills. The Local Information Commission acts as a 'starter' in this process, insofar as it is unable to maintain the register of tumours itself. Although this tool would not have existed without the voluntary action of the Local Information Commission, it is nevertheless dependent on 'other persons'. Its continued existence can come under threat if the state does not pick up the baton or at least support the collective effort involved. One way of ensuring its future could be to involve laboratories who would be able to make money from collecting this information.

II - 2.3 From Nord Cotentin to Tricastin by way of the Gard

The experience of *Nord-Cotentin* and the *Gard* encouraged other Local Information Commissions to tackle the issue of public health monitoring.

In Tricastin, a public inquiry took place in 2006 on the siting of the Georges Besse II uranium enrichment facility. As part of this public inquiry, the Regional Federation for the Protection of Nature for the Rhone-Alpes Region (FRAPNA), a member of the Tricastin Local Information Commission (known as CIGEET), put in a request for a study to take place around the Pierrelatte area to determine whether the region could accommodate a seventh site given the potential health impact. The investigating commissioners agreed to this request, as did the Departmental health and social services (DDASS) of the four Departments involved (*Gard, Drôme, Ardèche* and *Vaucluse*). FRAPNA asked for the study to be financed by CIGEET. In March 2006, CIGEET decided to share the funding for this study equally with the Nuclear Safety Authority (ASN), and asked for a committee to be appointed to monitor the progress of the research. The experts nominated to this committee were representatives of the National Institute of Health and Medical Research (INSERM), of the Institute for Public Health Surveillance (INVS), of the Departmental health and social services (DDASS), of regional state services for Research, Industry and the Environment (DRIRE), of industry and of the French Nuclear Energy Society (SFEN). In the course of their meetings different views were expressed on what a study of cancer should include: should it be an epidemiological study of mortality, as proposed by INSERM, based on the registry of deaths, parish by parish and managed by INSERM? Or a study on the causes of cancer based on an analysis of the waste emissions from the six existing sites? Another suggestion was to draw up a register of cancers in the four Departments concerned. In a recent 'Epidemiological Bulletin', the INVS had in any case proposed a new methodology to go beyond simple epidemiological survey whilst stopping short of a register of cancers. In this 'Epidemiological Bulletin', two regions were chosen for pilot studies: *Ile de France* and *Nord-Pas-de-Calais*. INVS expressed its reluctance to establish a register, which would be a cumbersome process. After many meetings of the expert committee CIGEET opted to commission a preliminary study to describe the state of health of the population surrounding Tricastin, using death certificates citing cancer (1968-2005, INSERM), files on health benefits for long-term illnesses and the registers of childhood cancer incidence. The study encompassed the perimeter of the emergency zone, that is 10km around the sites. The cost of the study was estimated at 40,000 Euros. A call for tenders was issued. The funding was to be split evenly between the Departmental council and the Nuclear Safety Authority. It was agreed that a second study, intended to research the causal factors of any health impacts, would be commissioned, depending on the results of the first study.

II - 2.4 Local Information Commissions – bringing innovation to health monitoring?

A register of tumours provides a multiplicity of information over the long term. An epidemiological survey offers a more rapid response, but can only provide a momentary snapshot. Given present knowledge, whatever method is used, it is impossible to identify definitively a particular cause leading to its effect in a particular cancer. Environmental causes are difficult to establish for a number of reasons. The long time-scale does not facilitate the process of connecting cancer with historical exposure. Some weak causes might be observable with a large sample size, but not at the level of the village near a power station. Further,

cancers have multi-factorial causes and environmental causes themselves are often diverse (pesticides, chemical waste, etc.).

Apart from the choice of methodology, questions have also been raised concerning the indicators: existing studies often focus on leukaemia and on children under 15, which represents a limited number of cancers. Some argue that the focus on cancer also excludes from consideration other potential health impacts, particularly that of low level exposure.

The useful experience of the *Nord Cotentin* and *Gard* tumour registers, CIGEET's recent initiative, and the internal deliberations of other Local Information Commissions, such as those of *Gravelines*, have started a debate on the best methods and indicators for monitoring the health impact of nuclear installations. The work undertaken by the different stakeholders with an interest in this issue (Local Information Commissions, INVS, IRSN – Institute for Radiation Protection and Nuclear Safety -, DDASS, DRIRE, Departmental councils, etc.) sometimes reveals conflicting priorities. However, it does result in an evaluation of the criteria necessary for good quality monitoring (national/local impact; occasional snapshot or long-term follow-up, etc.). In fact, this is currently under discussion in an all-party group consisting of Local Information Commissions, ANCLI (the National Association of Local Information Commissions) the IRSN and the INVS.

III - Fire in the Blayais nuclear power station turbine hall, pyranol transformers destroyed and equipment replaced: inquiry by the Blayais Local Information Commission

III - 1 The case

III - 1.1 Fire in the turbine hall

On 22nd November 2005, at 11am on 22nd November 2005, the Blayais power station suffered explosions in two of its transformers. Two further power transformers caught fire. The transformers run on pyranol, which can release dioxins when burned. The alert was sounded and the Internal Emergency Plan (PUI) implemented, with fire fighters arriving at approximately 11.30.

III - 1.2 Information is not made available to the Local Information Commission

The operator of the power plant informed the President of the Local Information Commission (CLIN) that there was a fire, which could be seen from the thick black smoke rising from the left bank of the *Gironde* estuary. The plant issued a press release through AFP (*Agence France Presse*) at around 15.40. It announced that there had been a fire in the plant's turbine hall, which had been put out and that the emergency plan had now been lifted. The level one fire was considered to present "no danger to the public or the environment".

Although the President of the Local Information Commission was informed of the incident, it is important to note that the power plant/AFP press release was only sent to the Commission's secretariat at 16.00 and that it was not provided with any more detailed information or contacted directly by the power plant or the Nuclear Safety Agency (ASN). In fact, there is no way in which the Commission could have been aware of the severity of the incident, beyond the immediate effects on the plant itself: i.e. shutting down the affected units.

III - 1.3 The Local Information Commission seeks further information

On 23rd November, the power plant's Health and Safety Committee (CHSCT) sent the Local Information Commission a syndicated press release highlighting the unsafe working environment in the turbine hall where the accident happened. The room contained a 40m³ oil cannister, 1200 litres of pyranol (which should not have been there on a number of counts), a hydrogen station and some cable boxes under 24,000 volts. The presence of so many "risks" led the Local Information Commission to investigate further.

Accordingly, the Commission decided to obtain further information, including an expert assessment carried out by a member of the Commission from the regional fire and rescue service (SDIS33), which confirmed that dioxins could have been released. At the same time,

the Commission began researching the regulatory framework concerning the use of PCBs/PCTs as well as the national disposal plan for PCBs/PCTs.

The Commission confirmed that all the 900MW reactor plants are equipped with pyranol transformers. However, this type of transformer was banned in 1987; equipment throughout the estate was intended to be replaced by 2010; no repair or refurbishment is permitted.

Noting that the information available appeared to be contradictory, the President of the Local Information Commission contacted officials at the power plant to question the credibility of the information they had issued. Meanwhile, the Commission decided to ask the local authority about its PCBs/PCTs disposal plan for the *Gironde* Department. Not receiving any response, the President of the Blayais Local Information Commission sent a formal written communication to the local authority on 1st December, requesting their inventory of PCB/PCT sources and the disposal plan. Having obtained a response, the Local Information Commission was surprised to see that there was no action plan explaining how the transformers will be managed up to 2010. In addition, the Blayais power station was not mentioned in the initial 2001 inventory.

On 2 December, the manager of the power station gave an interview to the newspaper "*Sud-Ouest*" ("South-West"), under the headline: "scaremongering disturbs the peace". In the presence of four site doctors, he confirmed that although the pyranol transformers caught fire, there was no release of dioxins.

However, the results of a more detailed study of the fire's consequences, sent to an Italian laboratory for analysis and due to be completed by 10th December, would not be known for many more months.

III - 1.4 Replacing the equipment

On 13th December, the Health and Safety Committee informed the Local Information Commission that the operator of the power station intended to replace the transformers that were destroyed in the fire with the same technology, sent to Blayais from the plants in Chinon and Tricastin.

On 21st December, the Nuclear Safety Authority informed the Local Information Commission in writing of its decision to refuse permission for this work to take place, as it would be in violation of Order No. 87-59 dated 2 February 1987, relating to the use and disposal of PCBs/PCTs. As a consequence the power station installed new "dry" transformers and the unit was back in use by the end of December.

III - 2 Comments from the CLI

III - 2.1 Action by the Local Information Commission

It is hard to estimate precisely the importance of the action taken by the Local Information Commission in this case. Nevertheless, the Commission chose to act outside its normal domain. The fire affecting the transformers at the Blayais power station was not a "nuclear" problem, but a more general "industrial" problem. In addition, the Local Information Commission did not act as an information "relay", but as an information "agent". That is, the Commission took a number of steps not only to obtain the required responses, but to inform itself in order to question those responses. In order to do this, it used the tools at its disposal: internal expertise (the Commission member who could provide expert technical information), its power to call for information (from the local authority, the Nuclear Safety Authority or the operator of the power plant), but also of more mundane sources of information, such as the internet.

III - 2.2 Role of the Local Information Commission

Beyond providing information to the public, the Local Information Commission has a scrutiny function. This was exercised here when the Commission took action to verify whether the operator of the power station was complying with the relevant regulations. In the present case, the Local Information Commission was not involved in raising the alarm, but from start to finish engaged in a process of listening, monitoring and scrutiny. What is happening? What needs to happen next? How?

Local Information Commission stands here as an institutional actor which exerts some forms of counter power, calling to the operator as well as to the nuclear safety authority. The letters sent by the President of the CLI, which is in addition closely linked to the Department Council, give authority and legitimacy to the action of the CLI, which expresses in an official way the public safety concerns of a pluralistic group of local actors.

III - 2.3 The Local Information Commission and other stakeholders in governance of the nuclear industry

Governance of the nuclear industry is still dependent on transparency of information and the quality of the relationship between different stakeholders. Too often, there is a culture of mistrust and of opacity. Thus, the operator chose not to release any details about a fire which the public was well aware had occurred. Similarly, it chose not to request an official derogation in order to replace the damaged equipment. This would have necessitated a "public" record, but would have firmly engaged the operator in the governance process, whatever the outcome. It is therefore possible to conclude that the Local Information Commission has been forced into a power struggle with the other operational and institutional stakeholders. In effect, the Commission is still rarely integrated spontaneously into their communications, debates or thought-processes. This means that the Commission must retain a certain formality in its communications ("official" requests, writing letters, etc.) and must

persevere to the point of becoming stubborn. Through these means, the Commission is able to obtain the information it needs and, in the case described, compliance with the regulations.

IV - Pilot project: "Monitoring radioactivity in the Loire Basin environment"

IV - 1 The Case

Established in 2005, the "Monitoring radioactivity in the Loire Basin environment" pilot project is run jointly by the Local Information Commissions (CLIs) in the area and the Institute of Radiation Protection and Nuclear Safety (IRSN). The objective is to work together to provide intelligible data from environmental monitoring to local stakeholders, helping them to carry out their own appraisal of the radiological quality of their environment.

IV - 1.1 A common interest

As part of their joint working agreement, the IRSN and the National Association of Local Information Commissions (ANCLI) carried out a study involving three Local Information Commissions in 2004. This study aimed to identify their needs in relation to the monitoring of discharges from nuclear power plants and the radiological quality of the surrounding environment. The study found that there was a strong desire for intelligible information amongst local stakeholders, who also held the view that the measurements taken should be adapted to the needs of the public in the region.

ANCLI and the IRSN therefore decided to launch a joint collaborative pilot project with the aim of identifying Local Information Commissions' practical needs in terms of the transmission of data, and of creating, jointly as far as possible, tools enabling any individual to carry out their own appraisal of the radiological quality of the environment. The success of this pilot project depended on the common interest in realising this goal shared by the different partners. In fact, although thousands of measurements of radioactivity are taken in the vicinity of nuclear power plants each year, they are not easily accessible by local stakeholders. It is vital that the public in the region should be able to access the key indicators of radiological quality in their environment, and even more so for members of the Local Information Commission.

In addition to its general duty to monitor the radiological quality of the environment, the IRSN is responsible for managing the National Environmental Radioactivity Monitoring Network, which is charged with collating all the measurements taken around the country (by the IRSN itself as well as the Department of Food (DGAL), the French Office of Fair Trading (DGCCRF), the local health and social services (DDASS), plant operators, campaign groups, etc.) and to make them widely available. The IRSN appreciated the importance of involving the public or representatives of civil society in its work in order to create an information service that local stakeholders would find useful.

IV - 1.2 Preliminary results from the "pilot project"

Consultation suggested that the project should be undertaken locally and the Loire river basin was chosen as the site. The four Local Information Commissions covering the Loire basin (*Saint-Laurent-des-Eaux*, *Belleville-sur-Loire*, *Dampierre-en-Burly* and *Chinon*) were invited to participate. The IRSN began the first phase of the project with the *Saint-Laurent-des-Eaux* Commission in July 2005. The Commissions from *Dampierre-en-Burly* and *Chinon* joined at the end of 2005. This phase consisted of presenting the results of the study described above to the Local Information Commissions and explaining that the IRSN had to be aware of local needs in order to provide information in a form that would be of use locally and regionally.

The second phase of the pilot project aimed to draw up an inventory of existing data sources, jointly with Local Information Commissions, and to identify which local organisations were currently collecting information (e.g. local research facilities or other organisations). On the basis of the work completed in 2005 with the *Saint-Laurent-des-Eaux* Commission, the IRSN produced a summary document bringing together all the available sources of information on environmental radioactivity around the power plant. By drawing up this document, it was possible to answer some of the more detailed questions posed by members of the Local Information Commission and to reach a more holistic understanding of the Commission's needs. These were principally centred on the need for a set of indicators that would allow local stakeholders to track changes in the radiological quality of the environment, both geographically and over time. The Commission also wanted access to a variety of different sources as well as an assessment of the public health risk.

Following this first report on the environment around the *Saint-Laurent-des-Eaux* nuclear power station and after further discussion with the Local Information Commissions, the decision was taken to draw up a similar report for the whole Loire river basin, including all those involved in taking measurements of environmental radioactivity. A pilot group made up of members of the Local Information Commission and the IRSN is supervising the drafting of the report, which is expected to be published in early 2009.

The work carried out jointly by the Local Information Commissions and the IRSN involves selecting from the available data based on two criteria: the long term picture (data going back 10, 20 or 40 years) and the presence of the river basin or natural basin. This choice of methodology allows for a real monitoring process to be applied that goes beyond the presentation of occasional snapshots of data. Therefore, data is not limited to the immediate vicinity of the power plant, but gives a broader picture of developments up and downstream and their possible causes. The impact of these nuclear plants' operations can be seen in the context of wider developments rather than the narrower focus of compliance with limits in the immediate area.

IV - 1.3 Objectives: creating and sharing data for the future of the basin

In terms of presentation, Local Information Commissions expect to receive intelligible data, with an informative commentary on radioactivity, and to understand how radioactivity is measured. There is a strong temptation to present averages, which conceal the true situation more often than they illuminate it, notably by flattening out particular geographical or chronological variations. Graphical representations and maps are appropriate tools, whereas

an inconsistent use of different units of measurement must be avoided. Equally, it is important to specify which units are being used. The final aim of an information service must be to provide simple, but not impoverished data, in a clear manner, taking account of all the constituent elements and elucidating complex data without needless complication.

In addition, key indicators should be identified from amongst the available data, allowing changes to be tracked both geographically and over time in response to local needs. Here, the "chronicles" are of particular interest as they can be used to track the effects of discharge-related incidents over time and along the full length of the Loire basin. The remit of Local Information Commissions as well as of ANCLI and the IRSN as an information service therefore goes hand-in-hand with action to improve environmental monitoring in the regional strategy for the Loire basin.

IV - 1.4 The situation in 2008

Local Information Commissions in the Loire basin continue to work on the impacts of nuclear plants, but the time has come to evaluate and improve the forms of data made available to them, first on a regional level, involving all the Loire basin stakeholders; and later through national action involving ANCLI with its Scientific Committee as well as reaching out to other organisations and institutions, perhaps even plant operators. Achieving a diverse range of opinions and expertise is essential to the project. The final goal is to reach a common interpretation of information, and to place the monitoring of radioactivity into the wider context of environmental monitoring. This will involve co-ordination with other agencies in the Loire basin (local and regional government, the local environment agency (DIREN), local health and social services (DRASS), regional development agencies (DRIRE), the water agency, the air quality agency (Lig'air), etc.), for example, as part of the "Loire Environmental Management Plan".

IV - 2 Comments from the CLI

IV - 2.1 Partnership with the IRSN

The dialogue involves several CLIs of the Loire basin and the IRSN in the definition of an approach to the monitoring of radioactivity in the environment that would correspond to the expectations and concerns of the local actors. This project led to a "win-win" partnership - the IRSN expertise was made available to respond to the questions of the CLIs and a fruitful reciprocal relationship developed in the exchange of skills and experience. This is a mutual learning process: the CLI appropriate the tools and methods of measurement and progressively define what their priorities. Furthermore, this enabled a real review of environmental radioactivity monitoring strategies to take place.

IV - 2.2 Joint working between Local Information Commissions and their role

Work on the impact of the nuclear industry takes place in the context of two opposing, yet legitimate perspectives: the industry is mainly concerned with compliance; whereas the local resident is interested in the potential accumulation of environmental pollutants and their

consequences. Local Information Commissions act as the intermediary in this regional relationship. As the representatives of a diverse group, they can fulfil their scrutiny function and help to prevent accidents or problems.

Local Information Commissions acknowledge that restrictions have become tighter and that the industry has improved its performance in dealing with releases. Commissions can help the industry see beyond the question of standards because they understand the regional dimension. They are able to interest industry in the potential accumulation of pollutants in the environment, as well as investigating the public health risks of low level exposure. There should be a review of the current discharge standards, which are considered often to be too generous, to bring them into line with new research about environmental and health impacts as well as the availability of new technology in the industry.

Local Information Commissions firmly believe in the concept of "natural heritage" which comes from their regional roots. Joint working between Commissions proved itself a useful asset in this project, as it allowed the work to arise from the "Loire basin" area, as a region, both in the questions that were identified and the methodologies used to provide an answer. The CLIs cooperate at the scale of a basin with the objective to set up a territorial follow-up of radioactivity in the environment. They view the nuclear facilities in their wider geographical and natural environment. Considering the quality of their environment as a common heritage, they wish to include the follow-up of radioactivity in a global follow-up of the quality of the environment.

Further, the range of skills available within the Commissions was used to its full extent in this collaborative project. Their long-term participation will only bear fruit if there is an active partnership between all stakeholders, from public institutions to the regulator, including the industry. Nevertheless, it will be difficult for the Local Information Commissions to reach fully this goal if they lack the necessary human and financial resources and still operate basically as voluntary organisations. Essentially, Local Information Commissions place great importance on a diversity of data sources and the importance of dialogue.

PART 3 : BUILDING AN AUTONOMOUS POLITICAL VOICE:

Development and publication of a White Paper by the French National Association of Local Information Commissions (ANCLI)

I - Context : A long-promised law

On 17th December 1986, following the Chernobyl catastrophe, Laurent Fabius, former French Prime Minister and Member of the Parliament, passed a bill on the creation of an independent Nuclear Safety Authority in order to add more vigilance into nuclear safety processes. However, this bill was eventually not discussed by the Parliament. The preparation of a law to organise the monitoring of nuclear activities was started again ten years later. In 1998, the report of the Parliamentary Office for the Evaluation of Scientific and Technological Choices on the "control of safety and security in nuclear facilities" fully opened the legislative process. This process will take ten more years and end up in 2006 when the Parliament passed the Law on Nuclear Safety and Transparency (hereunder called the TSN Law).

This long process, marked by hesitations and long breaks, was closely followed by the Local Information Commissions (CLI). The 1998 law bill and the following developments constituted an important stake, as it was the first time in France that a law considered the nuclear activities as a whole¹⁰.

The CLIs that wished to have a juridical framework for their activities were unanimous about the necessity of such a law, even if the prime focus of the law is the status of the Nuclear Safety Authority. However, the CLIs did not wait for the TSN Law to exist and carry out, with their members, actions at the local level. Moreover, the 1982 Mauroy Circular, which instituted a national conference of the Presidents of the CLIs, has been a very useful tool for the CLIs to create a national federating body. However, the practice of their mission of information and, even more, of monitoring, was made difficult by the lack of financial and legal support.

¹⁰ The 1991 law on research on radioactive waste management was the first law concerning nuclear activities in France; however, it was specifically focused on radioactive waste management.

II - ANCLI white Paper: a political and strategic tool

With the concern of making their 25 years experience known and taken into account in the Law under preparation, the CLIs wished to take stock of their activities and voice their concerns to the lawmaker through a White Paper.

II - 1 A process facilitated by the National Association of the CLIs (ANCLI)

The National Association of the CLIs (ANCLI) was created in 2000, with the task of representing the CLIs, supporting them and voicing and relaying their concerns. It was ANCLI that took into charge the facilitation of the White Paper process. Indeed, this first experience of White Paper constitutes an occasion for ANCLI to initiate a collective work of the CLIs, which pooled competences and efforts in order to exchange negative and positive experiences and shape shared elements. This process constituted an internal strategy of local actors in order to build the common voice that they need to affirm not only their territorial specificities, but also their collective expectations and ambitions. In this process, ANCLI both stirred the CLI into action and revealed their common concerns.

II - 2 The objectives of the White Paper

ANCLI White Paper pursues three different goals:

- Allowing the CLI to work together for the first time and to express themselves in a single voice;
- Formalising a set of propositions and expectations under a concrete form, that can easily be passed on and disseminated to a wide audience;
- Spurring the vote of the Law: the White Paper draws the expectations of the CLIs to the attention of the government and the Parliament *before* the vote of the Law and is therefore likely to influence its content.

Beyond these goals, drafting a White Paper is part of a strategic move of ANCLI and is a precondition to a more global political action.

II - 3 Implementation of the drafting process

The Board of directors of ANCLI decides to implement the White Paper process, in which the different categories of members of the association are engaged, on the basis of three principles:

- Transparency: the objectives, method and organisation of the drafting of the White Paper are shared with the CLIs who engage in the process,
- Traceability: detailed minutes (verbatim) of the meetings are prepared and made available to all participants,
- Confidentiality: dissemination of the minutes is restricted to the people taking part to the process in order to facilitate free expression of the participants.

Funding for the White Paper process is asked by ANCLI to the French Nuclear Safety Authority, which gives a positive answer.

III - Methodology and progress of the process

All the CLI were invited by ANCLI to participate to the drafting of the White Paper. A wide range of CLI has given a positive answer.

The concrete drafting of the White Paper has been made in plenary meetings of the group. All four colleges of ANCLI (elected representatives, NGOs, representatives of the economic sphere and qualified personalities) are represented in the meetings, with a view of representativeness. A professional facilitator has been hired to conduct the meetings and shape their outcomes.

A steering Committee was set up at the beginning of the process. It gathers members of ANCLI and members of CLIs, as well as the facilitator. Four themes have been chosen by the Steering Committee as a connecting thread:

- The structure and status of the CLI, and their competences
- Role of CLIs and ANCLI in the national and international decision-making process
- Local communities' access to specialist expertise
- Radioactive Waste Management

The working group had two one-day meetings, and half a day has been dedicated to each theme. The work on each theme is organised in three steps:

- The theme is introduced by short interventions of representatives of a CLI, who recall the context and make an account of the stakes related to the theme;
- A one-hour debate with all the participants to the working group allows to make a more detailed diagnosis of the issues at stake;
- A second one-hour session is dedicated to the preparation of proposals.

As a complement to these working meetings, written contributions were sent by members of CLI who took part to the sessions (CLIN of Blayais, CLI of Cadarache, CLI of Soulaïnes, CSPI of La Hague, SEIVA). These contributions were shared with the members of the working group. The facilitator was in charge of integrating these elements and drafting a first version of the White Paper. The structure of the document follows a thematic plan based on the four themes discussed during the meetings of the working group.

The White Paper gives an account of the experience of the CLIs and formalises their expectations. The CLI have put together their experience of the follow-up of nuclear sites. This allowed sharing good practices and contributed to pool expertise resources in the field of governance of nuclear activities. During this process, the CLI resorted to specific competences of particular participants in the field of public law in order to prepare propositions of sections of law which defined the role of the CLIs and determined their rules of operation and resources. In order to facilitate the translation of these expectations into the juridical form of a Law, some recommendations have been directly put under the form of proposals of sections of Law sufficiently relevant and rigorous to inspire the lawmaker. For this purpose, ANCLI has sought advice of a member of the Council of State.

The final version of the White Paper has been validated by the participants of the working group and by the Board of Directors of ANCLI.

IV - Outcomes

The White Paper of ANCLI on *local governance of nuclear sites* is the result of two one-day meetings which have gathered representatives of 12 CLIs (among 18 CLI member of ANCLI in 2005). The objectives and the methodology are described in the preamble, while the plan of the document sticks to the 4 themes which were discussed during the meetings. A set of recommendations and of proposed sections of Law complement the four thematic sections. The main conclusions of the White Paper are presented hereafter.

IV - 1 Structure and status of CLIs, local powers

In the views of the CLIs, the Law should decide four key points: the mission of the CLIs, their local powers, their status and funding terms, their membership and chairmanship. Because of their lack of means, but also because their competences are not yet recognised enough by the other actors, the capacity of follow-up of the CLIs may be restrained. But the CLIs consider as a necessity that a right to question, to be informed and to exert a follow-up of the activity of nuclear sites would be recognised to them. This supposes that their missions of information, follow-up and expertise would be reaffirmed, as well as the role they play in general in the monitoring of radioprotection and nuclear safety.

Beyond their mission of building knowledge about nuclear sites and informing the citizens, the CLIs are also in charge of relaying the question and the concerns of the population and the local elected representatives. Thus, their role is not to decide, but to discuss, on the one hand to deliver reliable and pluralist elements and, on the other hand, to deliver opinions or to make proposals in order to enlighten the administration and the operator in their choices and their orientations.

From this point of view, the White Paper constitutes an occasion for the CLIs and ANCLI to specify the nature of their role in the light shed by their experience. In the view of the CLIs, participation consists *inter alia* in being able to discuss *with* the other actors involved in the governance of nuclear activities, rather than taking positions *against* them or *without* them. It is thus important for them to be recognised by the Law not only as a legitimate actor (who would have the right to express itself), but also as a fully-fledged actor (which would have actual means to express itself). For that, it is necessary that the CLIs could be freed from the constraints related to their reliance on voluntary work and that they would be equipped with the necessary statutory and financial means. To these very conditions, the gap that the CLIs experience between discourse (participation, information, clarity) and practice could be reduced.

The competence of the CLIs is above all of a territorial nature, both in that the CLIs are meant to deal with issues concerning the territory as a place of life, and in that they have, through their members, specific competences and knowledge related to the territory. They have *de facto* a specific capacity of integration, but they consider as a necessity to stay in interaction with the other structures of dialogue existing on the territory. In this perspective, pluralism is part of the specificities that they proclaim in their status, while, in the views of the CLIs, the

chairmanship should be taken by a local elected representative insofar as this "gives a dimension of democratic legitimacy to the CLI". They eventually present themselves as "discussion forums" which allowed building up "a new form of local pluralism" for 20 years.

IV - 2 The role of the CLIs and ANCLI in national and international governance

In order to fulfil their missions, the CLIs wish to be officially included in the decision-making processes on issues that affect them. As a representative and support of the CLIs, ANCLI also demands specific means, the recognition of its position in the governance framework, as well as the right to "participate". Indeed, it is considered as useful that the CLIs would be included into procedures which occur at the national level in a continuous (High Committee for Transparency as proposed by the TSN Law, national working groups like the one set up in the framework of the National plan on management of radioactive materials and waste ...) or occasional way (meetings of the Board of directors of public bodies, National Commission for Public Debate). This cannot be considered without actual transparency and access to the documents.

At the national level, ANCLI is a key interlocutor for all the CLIs. It is also in charge of voicing the territories' questions and complaints to national decision takers.

The action of the CLIs through ANCLI at the international level meets three major objectives

- being heard by European and international authorities;
- carry out reflections on issues that go beyond the national framework or that are common shared with other European territories;
- organise exchange of experience with other territories or organisations in order to draw lessons from it in common;

In this view, the territorial level is the basis from which questions and competences are built, but it interacts with the national and international governance levels, in a continuous, ascending and descending move of pieces of information and propositions. It is important for the CLIs and ANCLI to be part of a network within which all actors of nuclear activities interact.

The status and financial means that the CLIs and ANCLI demand are the conditions of their independence and of the fulfilment of their mission.

IV - 3 Access of the local actors to expertise

Because of the highly technical character of nuclear activities, expertise is an essential tool for their follow-up. ANCLI identifies three success conditions for the access of local actors to expertise:

- guaranteed access to existing public information and expertise – information would then become an opposable right inscribed in the Law
- allocation of appropriate resources for carrying out studies, internally (within ANCLI or the CLIs) or resorting to external competences

- encouraging the development of a diversity of expertise clusters on nuclear safety and radiation protection, with a view to favouring the emergence of an actually multipolar governance system.

IV - 4 ANCLI, voice of the CLIs to the decision takers

For its *White Paper on governance of nuclear sites*, ANCLI has chosen a clear methodology which allow distinguishing on the one hand the diagnosis made by the CLIs and, on the other hand, the proposals made in order to improve the governance process. Most of these propositions are thus of a practical nature (means, tools ...) and need to be translated into a legal form in order to be included in the Law. As having an influence on the TSN Law is a key objective of the White Paper, the choice has been made to dedicate the last section of the White Paper to the sections of the Law proposed by ANCLI. They are related to the missions and means of the CLIs on the one hand and, on the other hand, to the missions and mean of ANCLI. The proposed sections of Law make use of the sections of Law proposed in the Law bills of 2002 and 2003. Through these proposed sections of Law, ANCLI clarifies its needs and expectations and penetrates into the process of working-out of the Law.

V - Several CLIs, one voice: the follow-up of the White Paper

The White Paper on governance of nuclear sites is a supporting tool proposed by ANCLI to allow the CLIs building then conveying a common vision of their missions and the conditions of their fulfilment. It is also for them an occasion to express themselves, insofar as the CLIs, like ANCLI, publicly affirm their identity, their role and their ambitions in the complex field of governance of nuclear activities. Thus, they affirm once again their "general mission of information, follow-up and expertise concerning the operation of the facility and its impact in terms of human health, environment and economic consequences, during the life of the facility and beyond".

The CLIs and ANCLI are positioned at a key level of governance (Department or conurbation level), which is narrow enough to be close to the real life of the territory, but wide enough to avoid being limited to a single nuclear facility. ANCLI is a means to establish horizontal links (between the CLIs) as well as vertical links (with the national, European and international levels o governance, in particular with national or international public authorities).

The White Paper of ANCLI has been disseminated to a wide and targeted audience, and was announced beforehand by a press conference. It has also been presented by the President of the ANCLI, Jean-Claude Delalonde, during the conference "*Is there 'actually' some room for civil society in the governance of nuclear and chemical activities ?*" organised on, 7th and 8th June in Paris. It has also been disseminated internally within all the CLIs and has been made available on ANCLI's website.

The choice for external dissemination of the White Paper has been first of all focused on the people concerned by the TSN Law: an exemplary has been sent to all Members of the Parliament. It has also been sent to the other actors of the governance of nuclear activities, at

the local and national level. Finally, the White Paper has also been sent to various European actors.

Eventually and above all, the President of the ANCLI has relied on the White Paper to meet Members of the Parliament and the Minister in charge of preparing the TSN Law, in order to increase their awareness of the experience and expectations of the CLIs. The CLIs, through their federation, ANCLI, wished that the TSN Law legislated about them, taking into account the existing situations (local, technical, historical, human context ...) and the diversity of their expectations. In other words, the Law should meet the needs of the CLIs and not be imposed on them from outside.

The CLIs and ANCLI express their will

- That the Law would be without any more delay and prevarication
- That the Law would meet their expectations

This White Paper has reinforced the legitimacy of ANCLI as a representative of the CLIs at the national level and gave ANCLI an opportunity to engage in a dialogue with national institutional actors (operator, nuclear safety authority, public expert institute, and above all, the Government and the Parliament) and negotiate the content of the 2006 Law on transparency and security in the nuclear field.

Despite positive feedback from some addressees of the White Paper, it is difficult to assess fully its impact, but the examination of the TSN Law by the Parliament shows that some propositions of ANCLI were obviously accepted. In particular, the statutes of the CLIS and ANCLI have been strengthened. Dialogue has been initiated with the National Commission for Public Debate.

This first White Paper marks the beginning of a new dynamics of ANCLI. This action allowed establishing the institutional ground of the engagement of the CLIs. From this point, some initiatives were developed to conduct investigations about issues considered by the CLIs as priorities at the national level, like the issue of radioactive waste management. From the following year, in order to extend the debate on radioactive waste management organised by the National Commission for Public Debate, the CLIs met again and drafted another White Paper dedicated to the governance of radioactive materials and waste. This White Paper was worked out with a view to include some recommendations coming from the public debate into the Law in preparation about radioactive waste management.

PART 4: APPROPRIATING A POLITICAL, SOCIAL AND TECHNICAL QUESTIONING

The investigations of ANCLI about the issue of radioactive waste management

The understanding of RWM issues by local actor has long been limited to the issue of siting a repository for high level and long-lived waste. Whereas the Departments of Meuse and Haute-Marne (neighbouring the Bure underground laboratory) and the Bure CLIS were isolated facing the perspective of managing high level and long lived waste, there was little room at the national level in which the local actors could voice their concerns. Through their federation a large number of CLIs have progressively become mobilised on RWM issues. They have supported the principle of a global vision of RWM management and issued a White Paper on the specific RWM issue, in which they stood up for a recognition and integration of the position of the local actors. They have then developed appropriate tools to develop their own skills and expertise on RWM issues. They have thus contributed to formulate the issue as a public issue which is not limited to the siting of a facility for high activity and long-lived waste management, but as a wider issue of management of all types of radioactive waste originated from various activities in different territories. The CLIs have put forward their expectations for a sustainable management of radioactive waste which would take into account the territorial concerns and the quality of life on the territories.

I - Radioactive waste management in the 1990s : recognizing the issue as a public concern

At the end of 1980s, there were high profile demonstrations in Western France against prospection works undertaken by ANDRA in zones that had been earmarked for underground storage of long term and highly radioactive waste. Opposing the decisions of the State, including by violent means, the citizens thus entered into the issue of radioactive waste management in a sensational way, claiming that this issue is everyone's matter and cannot be tackled without hearing the civil society. The technocratic model of radioactive waste management was thus in crisis. In the wake of these events, the Government announced a one year moratorium for any research into sites. The Prime Minister went to the *Office Parlementaire d'Evaluation des Choix Scientifiques et Techniques* (OPECST – Parliamentary Bureau for Assessment of Scientific and Technical Choices), and requested a report on the problems of management of radioactive waste.

The Parliamentary office for evaluation of scientific and technological options (OPECST) gave to Christian Bataille, Member of the Parliament, the mandate to investigate this issue,

write a report (issued on 6th May 1992¹¹) and draft a bill. This bill recommended taking better into consideration the local actors and selecting candidate sites (for a research facility and no more for a disposal) on a voluntary basis. Financial compensation scheme was foreseen for the sites. Eventually, the Law of 30th December 1991, which was the first Law on nuclear issues to be voted by the French Parliament, prescribed three technical solutions (geological disposal, long term storage and transmutation) to be investigated and that a new law would be voted within fifteen years: the choice was thus postponed until 2006¹². This law also created the National Assessment Commission (in charge of evaluating the outcomes of research on management of high activity radioactive waste) and the ANDRA.

In regard to the second line of research, the law sets out precise rules regarding site selection for an underground laboratory and its commissioning. The plan for the laboratory must give rise to local consultation, involving locally elected members and the local population. An information committee was set up to monitor the working of the laboratory. Finally the law provided for a review in 2006, by which the French Parliament would assess the results achieved and define new orientations.

Within the framework of the Act, Andra became an independent public manager of waste, with an industrial mission to design and operate waste storage, a research mission for the study of the feasibility of deep underground storage, and finally a public service mission for national information on radioactive waste.

Christian Bataille was appointed in 1993 to head up a mission directed at local authorities and those working in the economic and social field. The mission was to present the underground research laboratory project and to receive applications from local authorities. Following on from this approach, four Departments were pre-selected, on the basis of their geological characteristics: Gard, Haute Marne and Meuse for clay, Vienne for granite. The site of Bure (at the border between the Departments of Meuse and Haute-Marne) was chosen on 9th December 1998 to build a research laboratory on deep geological disposal in a clay zone. A Local Information and Monitoring Committee (CLIS)¹³ was set up from the beginning of the construction works of the laboratory in 1999. In the year 2000, the Government appointed a consultation mission to identify a second site in an underground granite rock site. This mission failed, and the Bure site remained the only site selected in the framework of the 1991 law.

The 1991 law was a major step forward thanks to the Parliament debate, and the first provisions made as regards public participation. However, the issue of radioactive waste management was still mainly confined to a technical dimension. The information and participation procedures were limited to the issue of laboratory siting, and triggered strong reactions from the public rather than involvement. The Bataille mission in 1993-1994 raised a strong opposition in Vienne and Gard. The three senior civil servants appointed in 2000 to undertake a study on a potential granite rock site faced strong hostility on the locations they inspected. From the mid-1990s, a protest movement has been organised against the project of deep underground repository on the site of Bure. These initiatives highlight the importance of

¹¹ Report n°1839 of Christian Bataille on the management of high activity radioactive waste

¹² The law n° 2006-739 providing framework for government programme on sustainable management of radioactive waste and materials was voted on 28th June 2006. It draws up a list of issues to investigate and the schedule of their examination.

¹³ Its missions are similar to those of a CLI.

political (who decides and how?), social (in particular the impacts on the local populations), but also ethical dimensions of the issue of radioactive waste management.

II - The CLIS : a specific local commission to follow the works of the Underground Research Laboratory

According to the 1991 Law, a Local Committee of Information and Monitoring (CLIS) was created in Bure in 1999, when the operator, ANDRA, set up the underground research laboratory. The CLIS is chaired by the Prefect of Meuse and is funded through a public interest group, created to lead accompanying actions in the neighbouring Departments. The CLIS includes local MPs, local elected representatives, professional organisations and trade unions, NGOs, the operator, the Prefects of the two neighbouring Departments and the local divisions of State administrations. According to the 1991 Law, the CLIS “must be consulted on all matters related to the operation of the laboratory affecting the environment and the neighbourhood and can commission audits or counter-expertises to registered laboratories”. The CLIS adopted inner rules and procedures in February 2000, which defined more precisely the missions of information and monitoring (notably the mission to “look after transparency regarding the respect of the objectives set in the framework of the research programme”).

The question of independent assessment of ANDRA’s research programme was raised by members of the CLIS in September 2001. On the request of the CLIS, the ANDRA sent its research programme to the CLIS in November 2001. The Bureau of the CLIS then set up a working group (which notably included the scientific secretary of the CLIS) in charge of this specific issue.

In February 2003, the CLIS opened a call for tenders. The call for tenders received only one answer, from the IEER, as the eligibility criteria included the availability of a wide range of scientific competences and a complete independence from the French operators. In November 2003, the selection committee agreed on the proposal of IEER. The ANDRA previously declared its readiness to cooperate with the IEER in May 2003 and sent its updated work programme in September 2003.

After the issuing of a draft report and exchanges of information and documents between the IEER and the ANDRA, the preliminary report of the IEER was sent to the CLIS in September 2004 and was then reviewed by the CLIS, with the support of the Regional Directorate for Industry, Research and Environment (DRIRE) and the Radiation Protection and Nuclear Safety Institute (IRSN). The preliminary report was forwarded to the ANDRA for comments, and reviewed by two experts jointly named by the CLIS and IEER. Finally, the IEER presented its final report to the CLIS gathered in a plenary meeting on 13th January 2005.

The assessment of ANDRA’s work programme by the CLIS on the basis of the IEER study was discussed and analysed in the COWAM 2 programme.

III - The 2005 debate: from local to national debates

The Government solicited the National Commission for Public Debate to organize a debate on the "management of long-lived high level and medium level waste" from September 2005 to January 2006. The debate highlighted several key issues for the French system of radioactive waste management: the identification of the nature, quantity and situation of the radioactive

waste, the issue of waste ownership (in particular for foreign waste reprocessed on the national territory), but also the responsibilities of each actor. The debate was a first opportunity to organize a dialogue at national level. Public participation was no longer restricted to the question of siting. Nevertheless, the debate was at the origin of a significant frustration from NGOs and local communities. While the debate emphasised the need to consider two options in parallel – geological disposal and long term storage -, a few days after its closure, public authorities announced that the only possible solution would be a disposal.

Interestingly enough, ANCLI played a key role in the debate to make the National Commission aware of the local commissions' experience in nuclear matters, and in organizing debate locally with various stakeholders.

IV - 2006 ANCLI White Paper : The governance of radioactive waste management – Waste and materials.

From the end of the national debate on radioactive waste management in January 2006 to the vote of the law in June 2006, ANCLI organised a round table with members of local commissions to carry on the dialogue, and develop recommendations supported by local communities with the view to feed the discussion of the bill in Parliament. The result was a White Paper, "Radioactive waste and materials – local territories", which has been drafted with the participation of 30 representatives of 13 CLIs, and was issued on 23rd June 2006. This second White Paper of ANCLI claims as a preamble: *"the CLIs and ANCLI are directly concerned by any issue related to radioactive waste and materials, whatever their origin (industry, mining, medicine) or the nature of the problems raised (radioactivity, toxicity, environment ...) may be."* In this White Paper also ANCLI claim that *"The CLIs and ANCLI intend to make these issues part of their mission. Out of a concern to disseminate information, the CLIs and ANCLI wish to contribute to the objectivity, to the quality and to the plurality of the information made available to citizens about waste. For this purpose, the CLIs and ANCLI will supervise the access by citizens to information on these issues in the hands of the public authorities and operators.(...) The CLIs and ANCLI initiatives aim at playing a role of vigilance, in the interests of social responsibility, acting out of a duty of good citizenship, checking that waste is properly managed, that methods and procedures exist to handle the various types of waste, and making proper allowance for the social, economic and long term environmental issues."* Moreover, based on its analysis of needs in the French context and the experience of the other European countries concerned, ANCLI requests that under the law of 2006 there be set up a *Commission Nationale Pluraliste et Permanente* (Pluralist and Permanent National Commission) for monitoring and managing radioactive waste and materials.

Although time may have lacked to allow the White Paper to have a substantial impact on the content of the law, ANCLI has created an impetus, as members of a large range of CLIs were particularly mobilised on an issue which is usually tackled at the local level, in the sole territories hosting waste facilities. Indeed, the consequences, the questionings and the responsibility of the waste are often left to the local citizen the most directly concerned.

In its White Paper ANCLI strongly promoted the need to consider all types of waste, and welcome the elaboration of a National Plan for Managing Radioactive Waste and Materials.

Indeed radioactive waste management is no longer reduced to the high level waste issue associated with the siting of a disposal. Public participation, including local commissions' efforts, provoked an extension of the debate to all types of waste, and all communities potentially concerned.

V - The creation of a permanent working group “radioactive waste and materials”

The CLIs have the possibility to resort to the Scientific Committee of ANCLI. This possibility was used by the CLI of Saint-Laurent-des-Eaux to assess the situation of a storage facility for graphite and radium-bearing waste located near the Loire.

In order to follow up specifically the questions raised and propositions made in its White Paper on radioactive waste management, ANCLI set up a dedicated permanent working group.

While the Scientific Committee of ANCLI provides a pool of competences that can be used on these issues, the creation of a permanent working group therefore corresponds to different principles. The objective of such a group is to build a common understanding of a complex issue, thus integrating its technical dimension into a wider questioning built from a citizen's point of view. As its duration is not limited, a permanent working group is able to carry out in-depth investigations on the issue at stake. It thus allows ANCLI to proactively set up a long-term process of follow-up rather than having short term reactions to external events.

The people who participated into the drafting of the "Radioactive waste" White Paper were explicitly invited to join the permanent working group "radioactive waste and materials", as well as the CLIS¹⁴ of Bure, which was particularly concerned by the issue, and the members of the Scientific Committee of ANCLI. The permanent working group "radioactive waste and materials" is finally composed of members of CLIs and of ANCLI, including qualified persons and voluntary experts who engage in a long term process. The coordinator of the working group plays the role of an intermediary between the members of the permanent group and the Board of directors of ANCLI. From its first meeting on 6th September 2006 until its late 2008, the permanent working group has met more than 10 times.

V - 1 Objectives of the permanent working group

The first mission of the permanent working group is to follow-up the developments that will follow the second White Paper. The permanent working group focuses in particular on the development of the National plan on management of radioactive materials and waste (PNGMDR), for which the Law on radioactive waste management of June 2006 made provision, to which ANCLI wishes to give a citizen dimension.

¹⁴ Information and Monitoring Committee, attached to the underground research laboratory in Bure.

Through the permanent working group, ANCLI wishes to constitute a pool of vigilant, active and competent local actors able to progressively develop their competences and build a strategic view of local, national and international stakes related to radioactive waste management. The members of this permanent working group thus have to engage at different levels by:

- identifying stakes
- gathering information
- carrying out expert evaluations if necessary
- building common positions of local actors at the national level (like the White Papers), disseminate them and stand for them
- following up current affairs linked to radioactive waste management
- participating to national and international forums
- engaging in European research projects
- ...

The concrete objective of the permanent working group is to help citizens to find answers to their questions about radioactive waste management and to take position on these issues in an informed way, thus exerting a mission of citizen vigilance.

In order to build a coherent strategy, identify priority issues and allocate at best the limited resources of its participants, the permanent working group has carried out an identification of themes of interest. The themes were chosen according to the schedule fixed by the "radioactive waste management law" of 2006 and according to the concerns of the local actors. 9 themes issues were chosen:

- foreign waste
- La Manche storage center
- Graphite waste
- Tritium
- Bitumen waste
- The notions of recoverable and recovered materials
- Mining waste
- Used MOX
- Sealed radioactive sources

Following the schedule fixed by the Law allows ANCLI to anticipate the milestones and make the voice of local actors heard in the national debate. The permanent working group directly appeals to actors engaged in governance of nuclear activities (like the ASN, EDF, the ANDRA, the IRSN, the Atomic Energy Commission ...) as well as to the Scientific Committee of ANCLI, and the CLIs are regularly invited to mobilise. The objective is to maximise exchanges with these actors.

The permanent group on radwaste focussed its activities on tritium in 2007-2008. The investigations aim at better identifying the nature and volume of tritium releases from nuclear facilities, to question the management of releases (what is released, what is stored as a waste?) and to develop an understanding about the knowledge and uncertainties on the health impact of tritium.

VI - Involvement in European projects

CLI members are engaged in experience sharing and cooperative research on the governance of radioactive waste management from the year 2000, notably in the COWAM network. ANCLI is chairing the NSG for France in CIP.

PART 5: ANALYSIS

I - Methodological note

I - 1 Introduction

An analytical grid has been worked out in order to analyse and characterise the process of mobilisation of civil society actors in France through the CLIs and ANCLI, as well as the modalities of information and participation implemented in this framework. One may note that the experience of the CLIs and ANCLI is at the crossroads of a dynamics of territorial mobilisation (initiated by civil society actors) and of the progressive development of an institutional system of participation and information. This dual nature necessitated resorting to an adapted framework of analysis which allows considering the CLIs and ANCLI under these two angles. The analytical grid was developed on the basis of several research works:

- **The IGNA study**¹⁵ (Inclusive Gouvernance of Nuclear Activities, July 2006) is a European study which objective was to make an inventory of the information and participation processes in the context of nuclear activities in the European Union.
- The book “*Acting in an Uncertain World: an Essay on Technical Democracy*”¹⁶ of **Callon, Lascoumes and Barthes**, is now among the classics in the field of citizen participation procedures. It provides assessment principles concerning the “dialogism” of these procedures.
- The works of **Fung and Wright** emphasise the notion of counter-power, as a necessary element for actual citizen participation. In the article “*Counter-power within deliberative and participatory democracy*”¹⁷, they sketch out some conditions of citizen participation.
- The Swiss researcher **Etienne Wenger** develops in the book “*Communities of Practice: Learning, Meaning and Identity*”¹⁸ a social perspective of learning, which is attached to collective practices within “communities of practice”. According to these works, phenomena of learning and competences development are directly linked with phenomena of meaning and identity creation.

None of these sources has been incorporated in full in the analytical grid, but the IGNA study, which is particularly comprehensive, has a special place into this grid and plays the role of a methodological "skeleton". Other sources, which focus on specific elements, complement it so that the grid forms a framework that allows considering globally the subject of the study.

¹⁵ See the report “Situation concerning public information about and involvement in the decision-making processes in the nuclear sector” (ref. TREN_04_NUCL_S07-39556)
http://ec.europa.eu/energy/nuclear/doc/governance/2007_05_study_en.pdf

¹⁶ See M. Callon, P. Lascoumes & Y. Barthe (2001), “*Agir dans un monde incertain: Essai sur la démocratie technique*”, Paris, Seuil

¹⁷ See A. Fung & E.O. Wright “Countervailing Power in Empowered Participatory Governance” in A. Fung and E. O. Wright (Eds.), *Deepening Democracy: Institutional Innovations in Empowered Participatory Governance*, 2003, New York.

¹⁸ See E. Wenger, “*Communities of Practice: Learning, Meaning and Identity*”, Cambridge University Press (1998).

Some works, like the IGNA study or the works of authors like Callon, Barthes and Lascoumes mention the experience of the CLIs or of ANCLI without taking it as the central purpose.

I - 2 The IGNA study

The methodological grid proposed in the IGNA study is a general investigation framework for the assessment of information and participation processes. It covers a range of issues:

- The origin of involvement and participation, as well as the organisational forms and the structures implemented in the process of participation

The aim is here to understand in what context (legal, political, social ...) and why a participatory process takes place and the role that is played by the various actors of the governance system (public authorities and the other types of stakeholders).

This criterion is also related to the structure of participatory processes, their organization, funding, one-off or permanent character, as well as to the nature and the capacity of civil society actors to influence these structures. Similarly, this criterion concerns the nature of the decision process (one-off or continuous) in which participation (if any) occurs and the contribution of participation in the quality of decision-making process.

- Dynamics of thematic inclusiveness of participation processes

Traditional forms of public action are based on a fragmentation of complex issues to which society is confronted. The issues are segmented according to administrative remits, according to decision levels (local, national, international) and to specialized administrative sectors (health, economy, environment, education, culture, etc.). The segments are then addressed separately by different specialised organisations. The purpose is here to assess the extent to which participatory processes contribute to defragmenting the actual issues and to taking into consideration together questions that are usually handled in “silos”.

- Dynamics of societal inclusiveness of participation processes

Participatory processes are generally set up on the basis of an initial definition of the set of concerned stakeholders, which that is most often determined by the original definition of the issue at stake (see above). The issue at stake here is the capacity of a process in progress to redefine the scope of the participation according to developments which may call for a redefinition of the set of stakeholders involved. This criterion and the one of thematic inclusiveness are tied insofar as, symmetrically, opening a participatory process to new dimensions and new issues calls for a redefinition of the scope of the concerned actors, while introducing new categories of actors often calls for a redefinition of the thematic scope of the process.

- The organisation of expertise within the process and its contribution to the development of the competence of civil society actors

The purpose here is to examine to what extent and how are mobilized forms of expertise within the framework of the participatory process and to what extent these forms of expertise enable society actors involved in this process to build their own skills. It will examine in particular the origin of the expertise mobilised (private, public or otherwise), the nature of the processes of expertise involved and their degree of openness, the ability of society actors to generate their own expertise, etc.

- Clarity and trustworthiness of the process

The purpose here is to determine the degree of visibility of the civil society actors on the framework for participation, its objectives, conditions of participation, rules of the game, steps of the process, the availability of findings and their relation with the possible decision making processes related to the issue at stake, and the recourses and safeguards available to the players in case of disagreement. Eventually, this criterion also involves the examination of the extent to which one may speak of trust (or mistrust) in the process from the various categories of stakeholders.

- Autonomy of civil society actors engaged in participatory processes

This criterion is the articulation of the issue of mobilisation and those of information and participation. The purpose here is to examine the forms of engagement of civil society actors in the considered participation process. Is the foothold of these actors in the issue at stake the result of the willingness of players to engage into citizen activism? Are the actors in a political posture (referred to long-term prospect of change)? Is their presence in the process associated with a desire to build their autonomy (for example in terms of expertise)? Is their presence rather the result of the political will of decision takers? In this case, what are the motives which govern the implementation of participation by decision takers? To what extent such participation has a continuous character in relation to long-term stakes identified by the civil society actors?

- Multi-level governance

The purpose here is to examine to what extent the processes considered, be they formal participatory processes or processes of social mobilization, are likely to enter different levels of governance (local, regional, national, international). This criterion is obviously linked to two criteria concerning inclusiveness of the process (thematic or societal). It includes how these levels interact and overlap. It also involves in particular the examination of whether local players are likely to enter discussion and decision processes at national or international levels they deem necessary to influence through the considered process.

The methodological grid of the IGNA study was originally developed in the nuclear field and can be used as a general methodological framework in this context. However, it is particularly focused on the process of participation and its articulation with decisions. The CLIs and ANCLI put forward their particular ambition to be primarily forums of discussion; decision taking is not a priori in the scope of their mission. It is therefore necessary to supplement this analysis framework with works particularly focused on the usual distinction in political science between participation (linked in one way or another to the decision) and deliberation (argued discussion).

I - 3 Callon, Lascoumes and Barthes

In this perspective, the analytical framework will also take into account the works of Callon, Lascoumes and Barthes presented in their book: *“Acting in an Uncertain World: an Essay on Technical Democracy”*. This approach is based on the rejection of traditional oppositions between scientists and laymen, professional experts or politicians and ordinary citizens. It is about new forms of relationship between citizens and democracy (change from a paradigm of representative democracy to the paradigm of participatory democracy, which opens its doors to a variety of actors, particularly from the civil society). It also concerns the relationship between knowledge and power (particularly in terms of cooperation between "confined" science of scientists and "free-range" science co-constructed by the citizens).

These new relationships develop in particular in a redefined, and sometimes experimental, public space which these authors examine carefully. Hybrid forums, public debates, citizen conferences and, in the present case, the CLIs and ANCLI, are understood here as new places where deliberative governance develops. To highlight the conditions that make this governance possible, the authors propose criteria to assess what they call the “level of dialogism” of these new processes and procedures - that is, their ability to facilitate and structure dialogue between actors who usually do not speak to one another, in order to build a common field. The intensity, openness, and quality of these processes, but also their clarity, are the main criteria of the analytical grid¹⁹ proposed here. Regardless of the issue of decision taking, these criteria allow us to analyze in greater detail the objects in question (the CLI and ANCLI), and their ability not only to themselves be deliberative bodies, but also to encourage other deliberative processes.

I - 4 Wenger

The contribution of Etienne Wenger, after his book *“Communities of Practice: Learning, Meaning and Identity”* sheds a complementary light on forms of learning implemented within communities of practice, articulating the individual level and organizational level. Wenger's works are the continuation of a number of researches on organizational learning, both descriptive (what is happening when an organization decides to enter into a process of learning?) and prescriptive (how can we improve this collective learning?). The prospect of the author is particularly relevant insofar as it helps to examine how the CLIs and their national federation, ANCLI, were able to form a community (with a shared identity), to achieve common goals (missions), which required skills (co-acquired).

Thus, learning is for Wenger a social participation process where meanings related to action are negotiated between different communities and within organizations which are as much “constellations of communities of practice” as formal structures strictly speaking. Identity for its part is considered as a negotiated participation in a community of practice and as a learning path. Participation designates the experience of actors who actively engage in social processes; reification, in comparison, is a process of shaping the experience by producing artefacts (tools, symbols, Stories, words ...) that freeze it for a while.

The source of the coherence of a group of individuals forming a community has three dimensions: mutual engagement, a joint enterprise, and a shared repertoire. Mutual engagement involves steady mutual relations, whether harmonious or conflicting. It also

¹⁹ See annexes.

involves common ways to commit to do things together, knowing what others know and what they can do and how they can contribute to collective action; jargon, shortcuts in communication, shared stories, jokes within the group; forms of shared speech that reflects a common way of seeing the world. Communities of practice are considered by Wenger as the support of a “shared history of learning”; however, the question arises of the relations between heterogeneous communities of practice.

Thus, questions posed by Wenger's methodological grid for evaluating governance procedures and processes are:

1. What are the forms and guarantees of the mutual commitment of the members of a community?
2. To which extent are they linked by a joint enterprise (missions, objectives ...)?
3. What are the elements that constitute their shared repertoire (how does a CLI, for instance, identify itself as such)?
4. What are their relationships with heterogeneous communities of practice (the other actors in the governance of nuclear activities, for example)?
5. What individuals, actors, ensure and guarantee the interface with these heterogeneous communities?

I - 5 Fung and Wright

The contribution of Archon Fung and Erik Wright (*“Counter-power in participatory and deliberative democracy”*) allow specifying the social and political conditions for significant and influential societal participation (“deliberative governance”) in contexts characterized by a deep imbalance between civil society and traditional actors in terms of resources, power, or access to information.

The thesis developed by Fung and Wright is that deliberative governance always requires the existence of significant counter-powers in order to generate the democratic benefits that its supporters expect, like “innovation in methods of problem solving, more subtle and more efficient public action, a series of informational benefits, greater legitimacy, greater equity, the promotion of public deliberation and civic education.” Counter-power is defined as the mechanism capable of weakening or even neutralise the political prerogatives of social actors that are usually dominant.

The authors also distinguish a form of governance that they label “vertical-agonistic” from a form of governance called “deliberative-participatory.” Two points are of particular interest for our analytical grid:

- The distinction between groups of an agonistic character for which political action merge with the conflict and “deliberative-participatory” groups which attempt to integrate into the global processes of decision. According to the two authors, the first type of groups obtain essentially ad hoc changes, focused on a specific object (economic, environmental, political ...), while the latter are able to change the decision process itself, over the long term, regardless of the issues at stake.
- The concept of counter-power without which deliberation would remain a sterile political process.

In sum, Fung and Wright formulate four fundamental propositions:

- “Proposition 1: The various forms of participatory deliberation will generally be unable to generate the profits anticipated by their supporters in the absence of significant counter-powers.”
- “Proposition 2: The sources and forms of counter-power most appropriate to deliberative contexts are generally very different from those that characterize agonistic contexts.”
- “Proposition 3: Both types of counter-powers, deliberative and agonistic, are difficult to substitute one by the other.”
 - “Proposition 4: The emergence of a counter-power compatible with deliberative governance is not essentially a matter of political or managerial customs nor of institutional engineering.”

Elements of discrimination from this work are integrated into the analytical grid of this study to highlight the specificities of the CLIs and their federation in comparison with agonistic forms of social mobilization in the nuclear field. This will include identifying the capacity of CLI and ANCLI (methods, tools, organization ...) to overcome the structural imbalances of the contexts in which they operate and identify the possible counter-powers that are mobilised.

II - Constitution of the final analytical grid of the study

The analytical grid of the IGNA study is used as a basis for the grid of this study, and is enriched by the various works mentioned above, with specific contributions which include:

- The "deliberative nature" of democratic forums that the CLIs and ANCLI are (Callon, Lascoumes and Barthes)
- The capacity and modalities for the CLIs and ANCLI to become a community of practice and learning for joint missions (Wenger)
- The strategies implemented by the CLIs and ANCLI to overcome the imbalances in their intervention framework and to exert greater influence: assessment of the forms of counter-powers that are mobilized (Fung and Wright).

III - Analytical grid

Context & origins of the process

- Origins:
 - Why was the process been developed?
 - How was it developed? What is the influence of civil society actors on the structure of the process?
 - Does the considered process have a formal character (formal structure, rules of the game ...) or is it a spontaneous process of mobilisation?
- Characteristics of the decision making process to which the mobilisation/participation process is related:
 - Is the process of mobilisation of civil society actors considered clearly related to one or several decision-making processes?
 - What is the nature of the related decision-making process(es) (one-shot, continuous, iterative, interactive ...)?
 - What is the contribution of civil society mobilisation to the quality of decisions?

Inclusive character of the process

- Inclusiveness regarding the issues considered:
 - What is the capacity of the mobilised actors to address together different dimensions of the issue at stake (e.g. risks & economical development)?
- Inclusiveness regarding the actors involved:
 - What is the capacity of the mobilisation/participation process to welcome a wide variety of stakeholders?
 - What is its capacity to welcome newcomers during the course of the process?

Expertise

- How is expertise built during the process (private, public, independent, pluralistic ...)?
- What is the role of expertise?
- Does it contribute to empower participating actors?

Transparency

- Inner transparency (in the case of a formal participation process):
 - Are the objectives and rules clear?
 - How can participants check that the rules are respected and enforce them?
- External transparency:

- Are debates transparent and traceable? Are the outcomes accessible?
- Are the impacts of participation clear?
- What is the role played by discussions and negotiations carried out outside of the participation process?

Multi-level governance

- What are the interactions between local, regional, national, international levels?
- What is the influence of local or regional actors on decisions taken at upper levels?

Autonomy and trust

- What is the degree of autonomy of each actor?
- Are they in a political position (will and means to trigger sustainable change, long term objectives beyond the deliberation/participation process ...)?
- What are the relations of trust / distrust / vigilance between the actors?

Quality of dialogue

- Do the dialogues and deliberations include a diversity of participants and points of view?
- How early were non-expert involved in knowledge building?
- What is the connection between the deliberative process in which the involved organisations are represented and the inner debates of these organisations?
- What is the degree of seriousness and continuity of the interventions?
- Have the engaged actors balanced access to debates (information, resources ...)?

Mutual learning & community building

- To which extent does the group of engaged actors form a community?
- Is the group cemented by a joint enterprise (objectives, mission ...)?
- What are the forms and guarantees of mutual engagement between these actors?
- What are the relations and interfaces between the group and external actors concerned by the issue at stake?

Counter-powers

- What is the type of engagement of the actors: oppositional or dialogue-oriented (though vigilant)?
- What are the existing counter-powers?
- Does the engagement and dialogue process produce some form of counter-power? How?

CIP – WP2

- What is the capacity of the engaged actors to enforce negotiated rules ?
- What is the capacity of the engaged actors to collectively stretch decision-takers?
- What is the capacity of the considered mobilisation/participation process to trigger actual changes?

IV - Analysis

The analysis of these case studies relied on the hoc grid based on the results of several research works on inclusive governance, presented above.

This analysis does not aim to provide an exhaustive typology of the contributions of the CLIs and ANCLI to the follow-up of nuclear sites. It rather aims to point out, on the basis of concrete examples presented in the previous chapters, various types of contributions of local actors to the protection of people and the environment around nuclear sites. It also identifies several key factors that favour such contributions.

IV - 1 Contribution of the French Local Information Commissions (CLI) to safety and health and environmental protection around nuclear sites

IV - 1.1 Identification of different types of contribution of the CLIs and ANCLI to the protection of people and the environment in the vicinity of nuclear facilities

According to the French 2006 Law on transparency and security in the nuclear field, the Local Information Commissions (CLI) have “a general task of *follow-up, information and dialogue* on nuclear safety, radiation protection and impact of nuclear activities on people and the environment as regards the site facilities”.

This legal definition recognises the role played by the CLIs since their creation. The examination of the history, roles and practices of the CLIs, through a historical review and case studies, allows characterising more precisely the contribution of the CLIs to the protection of people and the environment in the vicinity of nuclear sites.

This allowed identifying three different roles played by the CLIs concerning health and environmental protection in the vicinity of nuclear sites:

- *Following up* the nuclear site they are attached to and its impacts, as provided for by the law. This includes carrying out radioactivity measurements, commissioning counter-expertises and investigating issues of particular concern for the CLI.
- Contributing to the development and implementation of general *tools for the follow-up of nuclear sites*
- *Issuing opinions or propositions and stretching* the administration, the operator, the Government or the Parliament

These different roles played by the CLIs are described hereunder and illustrated by concrete examples mainly extracted from the case studies analysed in the framework of this research brief. The specificities of the role played by the CLIs in the follow-up of nuclear sites will then be addressed.

IV - 1.2 Follow-up of nuclear sites

Since the creation of the first CLI in 1977, the role of the CLIs has progressively evolved from relaying information provided by the operator and the nuclear safety authority to a more proactive role of autonomous follow-up of the operation of the nuclear sites. This follow-up is focused on safety, environmental issues and related health issues.

The role played by the CLIs is not limited to exchange of information with the operator, public authorities and technical support institutions. The CLIs also resort to various sources of information (local professionals and organisations, universities and research institutes, foreign experts, Scientific Committee of ANCLI ...) in order to support a *critical dialogue* with the operator and public authorities.

The follow-up exerted by the CLIs includes issues related to the compliance of the operator with the existing regulations. For instance, in the case of the fire in the turbine hall of the Blayais nuclear power plant (see p.29), the CLI obtained that the operator complied with the regulations on elimination of PCBs. However, the CLIs also address issues which are not directly linked to the compliance to existing regulations. By providing a specific territorial perspective on the nuclear site, they are able to identify possible safety gaps that were not considered by the institutional actors. For instance, in Gravelines, the CLI has questioned the potential impact of an oil spill on the water supply of the nuclear power plant, situated at seafront. This has led the operator to equip the Gravelines nuclear power plant with oil booms in 2004.

In some cases, the information necessary to answer the questions of the CLI was not available. In such cases, several CLIs have led specific investigations on issues of particular concern. For instance, in the case of the Gard registry of tumours (see p.24), the Gard CLI has commissioned an epidemiological study on children and teenagers leukaemia and thyroid cancers in the vicinity of the nuclear site of Marcoule. In the Loire basin case (see p. 33), the CLI of Saint-Laurent-des-Eaux, jointly with the IRSN, have drawn up an inventory of existing data sources on environmental radioactivity around the nuclear power plant.

In the framework of their investigations, the CLIs have the capacity to commission expert studies. Article 22 of the 2006 law on transparency and security in the nuclear field thus states that “to perform its duties, the CLI can commission expert studies, including epidemiological studies, and carry out any measurement or analysis in the environment in relation to emissions or discharges of the site facilities”.

As the CLIs generally communicate the results of their investigations to the public, they also contribute to the transparency of the operation and follow-up of the nuclear sites. For instance, in the lichens case (p. 20), the reconstruction of the tritium discharge of the CEA facility of Valduc by the CLI eventually led to the disclosure of the history of the tritium discharge by the CEA.

IV - 1.3 Contribution to the development of tools for the follow-up of nuclear sites

In several cases, some CLIs have engaged in the development and implementation of tools for the follow-up of nuclear sites, alone or in cooperation with other territorial or national actors. These tools are of different scopes and nature, and can be divided into three distinct categories.

The first one gathers technical tools for the follow-up of health and environmental and health of nuclear facilities. The CLIs and ANCLI engage in the development of these tools because they facilitate (or condition) the investigations of specific issues by the CLIs (for example the follow-up of tritium discharges, the accumulation of radioactivity in the environment ...) and correspond to a clearly identified need. The identification of lichen as a bio-indicator of tritium discharges in the environment (see lichens case study p. 20) and the development of a registry of tumours in the Gard Department (see p.24), fall into this category of tools. The CLIs and ANCLI contribute to the development of such tools not only locally but also in the framework of regional or national processes. Thus, in several cases, some CLIs and ANCLI took part to regional or national working groups aiming to develop indicators or methods for the monitoring of environmental impacts (see the Loire basin case study p.33) or health impacts (see the Gard registry of tumours case study p.24) of nuclear facilities.

The second category encompasses the specific tools developed by State institutions to exert their mission of regulation and control of nuclear activities. In several cases, some CLIs or ANCLI were consulted or invited to participate to official working groups or committees. For instance, ANCLI has joined the working group set up by the Nuclear Safety Authority in the framework of the development of the National plan on management of radioactive materials and waste (PNGMDR). Representatives of CLIs and of ANCLI also took part to working groups of the Executive Committee on Post-Accident Issues (CODIRPA) in charge of updating the French doctrine for the management of the post-accident phase of a nuclear or radiological accident. Being involved in the development of institutional and regulatory tools allows the CLIS and ANCLI to better understand these tools and represents an opportunity to exert some influence over their development to strengthen their capacity to integrate a local oversight perspective.

The third category of tools is related to the governance of nuclear activities in general or of specific activities (e.g. radioactive waste management). It includes specific research processes focused on these issues, as well as dialogue forums or working groups at the national or European level. For instance, in October 2005, ANCLI has set up a joint working group with the Institute for radioprotection and nuclear safety (IRSN) about the "access to the expertise of the IRSN" in the field of radioactive waste management. At the European level, representatives of several CLIs and of ANCLI have taken part to COWAM 2 (2004-2006) and CIP (2007-2009) European research projects on RWM governance. Engaging into these processes and forums represents an opportunity for the CLIs and ANCLI to appropriate the governance framework of nuclear activities, voice their concerns in national or European level and strengthen, in the nuclear field, the role of local democracy and the practical implementation of principles of transparency and dialogue.

IV - 1.4 Issuing opinions or propositions, stretching the operator and public authorities

In several cases, some CLIs, on their own behalf or jointly with ANCLI, have issued opinions or propositions to inform and stretch the administration, the operator, the Government or the Parliament on specific issues. This can be made upon the request of public authorities in the framework of institutional processes which include a formal role of the CLIs or the ANCLI.

For instance, article 22 of the 13th June 2006 Law on transparency and security in the nuclear field thus states that “consultation [of the CLI] is compulsory for any project subject to public inquiry”. In 2006, the Gravelines CLI anticipated this provision of the Law and decided to prepare an official opinion in the framework of the public inquiry concerning the use of MOX fuel in the Gravelines nuclear power plant. The document submitted by the CLI took the form of a set of 59 questions intended to the operator and the safety authority.

Issuing of opinions and propositions and stretching private and public actors in the nuclear field can also be the result of an autonomous action of the CLIs or ANCLI. This was typically the case for the two White Papers issued by the CLIs and ANCLI (see p. 37 for the first White Paper and p. 47 for the second one). These White Papers were issued in the context of the preparation of two Laws (the Law on Transparency and Security in the Nuclear Field and the Law on the Sustainable Management of Radioactive Materials and Waste), where no formal role of the CLIs or ANCLI was provided for in the institutional process.

The CLIs and their national federation, ANCLI bring a view on the follow-up of nuclear sites that is complementary to the one of the operator and of the safety authority by adopting a point of view originated from the territory rather than from the nuclear site itself. As an assembly of local actors living on the concerned territory, they have an integrated view of all types of risks on the territory and of the possible synergies between nuclear risks and other types of risks (e.g. natural risks, industrial risks ...). This territorial rooting brings specific questionings, knowledge and skills within the public debates on nuclear facilities. Moreover, this territorial point of view also allows considering the impacts of a whole set of nuclear activities on a given territory (it is the case, for instance, in the pilot project on the monitoring of radioactivity in the environment in the Loire basin).

The CLIs are actually or potentially autonomous actors capable of developing their own reflections and actions. They thus have the capacity to investigate safety or health and environmental protection issues, alone or in cooperation with other local actors on the territory, in order to address and bring answers to the questions and concerns of the local citizens. These investigations are of a different nature from those carried out by public authorities or public expert institutions. They address issues related to the impacts of the nuclear activities on the quality of life on the territory with a view on the quality of life that integrates all its different dimensions (health, environmental, economical, ethical ...).

The CLIs are also capable of interactions with nuclear safety authorities, public expert institutions and the operator under the form of a *critical dialogue* which aims to improve the quality of the way in which nuclear activities and their impacts are taken in charge. This dialogue involves civil society actors (in particular local ones) in a position of autonomy and institutional actors; it is supported by the reflections and investigations developed by the CLIs and ANCLI.

This process of critical dialogue is not limited to the provision of information that allows enlightening public (regulator, expert) and private (operator) decision makers. It formulates in other words, reframes and widens the terms of the debate in such a way that the issues addressed can be linked to the concerns and expectations of the local actors in a relevant way. The consensus between the various actors engaged in critical dialogue (CLIs, local actors, civil society, operator, public authorities, experts ...) may be an outcome of the process but is not necessarily reached and does not constitute the main objective of the process: critical dialogue may also undergo disagreements, tensions and power struggle between the actors engaged in the process.

IV - 1.5 A specific role in the follow-up of nuclear sites

The main characteristics of today's CLIs already existed in 1981: creation at the initiative of local elected representatives, pluralistic membership, inclusion into a territorial context, long-term scope (the CLIs are permanent forums). However, it is through experience, over the years, that the CLIS have built up a capacity to be a real tool for "citizen vigilance", complementarily to administrative monitoring and regulation.

The CLI legitimise and formalise the participation of territorial actors (elected representatives, unions, NGOs, qualified personalities) in the follow-up of nuclear facilities. Through their existence and their work, the benefits brought by the exercise of a critical vigilance from a citizen's perspective to the operation of the nuclear facilities are recognised.

The CLIs frequently meet difficulties in fulfilling their mission. On the one hand they note that despite institutional recognition of their mission by the 2006 Law on transparency and security in the nuclear field, their voice is too rarely heard and taken into account by the operator and the regulator. Their letters are too often ignored, and views that they contribute to raise are not considered. According to the interviewed CLI members, it is through an exceptional event (fire, flood ...) or when they bang their fist on the table they are listened to. As a result, they often enter into a power struggle with institutional actors in order to be fully recognized.

On the other hand, their mission is to investigate issues relating to safety and radiation protection. To conduct relevant and effective follow-up of nuclear facilities, the CLIs must cooperate with the various actors involved in the governance of nuclear activities: operator, public expert organisations, nuclear safety authority...

The nature of the work of the CLIs therefore implies playing on these two regimes of power struggle and partnership in order to fully carry out their mission of citizen vigilance.

The CLIs include people with very diverse experience and views, notably concerning nuclear power, which is advocated by part of the members and rejected by other ones, while some other members refuse to take stand concerning this alternative. However, all members of the CLIs recognise themselves in the mission of the CLIs: exerting citizen vigilance on the nuclear facilities and their environment. As part of this mission, members of the CLIs develop a common experience. Through the investigation of an issue in common and the development of a questioning intended to the operator or to the nuclear safety authority, they build up a set of common references and practices.

Safety or health and environmental protection issues may be investigated in the framework of the CLI, as well as outside it, while some members of the CLI judge that their action may be more effective if it is conducted in their own quality of elected representative, NGO, union ... rather than in the framework of the CLI. The CLIs are thus of a dual nature, being both *dialogue* forums gathering local actors rooted in territoriality and self-standing entities capable of taking autonomous *actions* and being formally included into the governance system of nuclear activities. This allows local actors developing influence strategies that combine exchange of information within a network of local actors which can go beyond the strict membership of the CLI, individual actions of the individuals or organisations members of the CLI and actions taken by the CLI as such (e.g. formal demand for information sent to an operator or to the authority).

The CLIs which work best are perhaps those who take benefit from this duality and from the complementarities between strong positions of their members outside the CLI and an investigation work carried out in common inside the CLI. A CLI is powerless if it merely relays the position of individual actors. It has no force, however, if it does not allow the expression of different positions. The CLIs are in a stronger position when they manage to put together these different positions and points of view in a process of joint investigation of an issue. The pluralism of their membership constitutes a resource for the CLIs, provided that it does not weakens vigilance, but enhances the relevance of its work from the point of view of local citizens. Furthermore, the strength of the CLIs also consists in the fact it constitutes a formal forum in which the issues addressed become public issues: raising issues and making them recognised as relevant for the follow-up of environment, radiation protection and safety therefore constitutes a drive for change.

The CLIs constitutes a form of counter-power insofar as, while keeping watch over the facility's conformity to existing regulations, its actions are not necessarily taken in reference to the institutional framework. By adopting a territorial perspective, the CLIs thus highlight issues that are not taken in charge by the institutional framework (e.g. the accumulation of radioactivity in the environment). The combination of the inclusion into a local network of actors and a formal role in the governance framework then allows the local actors to use the CLI as a strategic platform to ensure that the questions that were raised from a citizen's perspective are effectively considered, addressed and answered by the institutional actors (operator, authority and public expert organisations).

IV - 2 Key factors that condition the contribution of the CLIs to health and environmental protection in the vicinity of nuclear sites

The actual contribution of local commissions to health and environmental protection depends on a series of factors. The analysis identified three major ones :

- the development of expertise and skills
- the capacity to stretch and influence upper level of decisions
- the capacity to link the activity of the CLI with a broader community-based perspective

IV - 2.1 Development of local actors' expertise and skills

The CLIs have gradually developed expertise and skills in order to support their mission of follow-up.

Their role of citizen inquiry leads them on the one hand to develop a questioning that sums up the concerns of the citizens on a given issue. These questions of “common sense” bring a strong added value to the follow-up of nuclear facilities as they constitute a fresh look at safety issues and are not limited to regulatory control and compliance to standards. They allow identifying deficiencies, vulnerabilities or possible damage, which are not - or not yet - taken into account by the institutional system.

Formulating and investigating these citizens' questionings often require external skills and expertise given the highly technical nature of nuclear technology. The CLIs use expertise in different ways: they may commission expert studies, but increasingly they are joining efforts in the framework of ANCLI, through the Scientific Committee or through permanent working groups, to build their point of view, at the same time they bring together expertise. Within permanent working groups, the CLIs not only share knowledge, but they also ask questions, identify problems, and build an investigation on which they can then use to refer to the operator or the authority. The development of skills and expertise of the CLIs is thus closely interrelated with their empowerment.

Moreover, combining inner skills and external resources while investigating a particular issue constitutes not only a means for a CLI to gather the necessary elements of information, it also contributes to improving the knowledge and skills and expertise of its members.

It is also to be noted that in the processes of citizen inquiry developed by the CLIs, the mobilised expertise is not only of a technical nature, since the issues at stake may require considering administrative, legal or ethical dimensions, and resorting to specialists in various fields.

By their action, the CLIs contribute to improving access to information (it is not uncommon that a NGO representative and member of a CLI gets through the CLI a piece of information that was denied when it was requested through the NGO) and facilitate the understanding of cases, considering the issues as “laymen”, with a view to the consequences of nuclear activities for the territory.

The CLIs themselves constitute dialogue forums that allow the exchange of information and views among a group of actors. One of the main qualities of this dialogue is that it develops

on the long term, and it offers an opportunity for participants to progressively appropriate technical and non technical issues discussed, and thus become empowered. This dialogue is not without controversy and does not aim to reach a consensus. It allows local actors to investigate issues relating to public safety and environmental protection.

Beyond the development of their capacity to investigate technical and non-technical issues related to nuclear safety or health and environmental protection, the CLIs and ANCLI also develop their capacity to interact with the other actors involved in the governance of nuclear activities, in particular the Institute for Radiation Protection and Nuclear Safety (IRSN). Through a specific working group, the CLIs and ANCLI develop a joint reflection with the Institute on the ways the skills of the institute are made available to civil society organisations (including the CLIs). Moreover, the CLIs and ANCLI also develop joint projects with the IRSN on issues of common concerns (for instance, the pilot project on the monitoring of radioactivity in the environment in the Loire basin). These projects and reflections constitute processes of mutual learning in which the CLIs and ANCLI develop technical skills and tools (e.g. environmental indicators) but also their capacity to interact with institutional actors, while the IRSN develops its capacity to engage in a technical dialogue with civil society actors in a way that is relevant for both parties.

IV - 2.2 Stretching and influencing upper decision levels

The organization of the CLIs at the national level within a national association (ANCLI) reflects the awareness that some of the issues addressed in a CLI are matters of concern for other CLIs in France. This phenomenon is reinforced by the relative uniformity of the French fleet of nuclear facilities. A key drive for gathering into a national organisation is the willingness of the CLIs to exert an influence at national level on the regulatory framework and decisions governing the operation and monitoring of nuclear installations. Through interventions in the public debates organised by the National Commission for Public Debate (CNDP) and the autonomous production of White Papers where they argue their views and expectations, the CLIs enter the national arena and introduce an emerging local participatory component in the institutional system.

By creating a citizen investigation forum in a territorial perspective, the CLIs open up new fields of action in the follow-up of nuclear activities. They fall within the established framework for the follow-up of nuclear activities. However, their actions modify and widen this framework by leading it to take into account emerging issues (e.g. radioactive waste, presence of pyranol in voltage transformers, flood and earthquake risk ...). They have obtained a legal recognition of their role in the 2006 Law on transparency and security in the nuclear field, and led the regulatory framework to integrate the issues they point out. The strength of the CLIs is that they are now included in the regulatory process, while their members keep their autonomy of action as well as their rooting in territorial organisations (unions, city councils, NGOs, ...), which allows them to continue to exert an autonomous watch over nuclear facilities and efficiently relay issues that emerge in the territories.

The CLIs complement the follow-up of nuclear activities where the monitoring conducted by the operator or by public authorities is not efficient, i.e. on issues which require a particular sensitivity and knowledge of the specific territory which hosts a nuclear facility (a typical illustration of this is the identification, by the CLI of Gravelines, of oil spills as a threat for the safety of water supply of a nuclear power plant situated at seafont).

Through the exchange of experience and good practices through ANCLI, the joint investigation of specific issues (e.g. radioactive waste management) through permanent working groups and the development of a specific questioning intended to the Nuclear Safety Authority, the CLIs develop a common repertoire of references and practices. Through this particular structure, the CLIs reinforce their position both at local and national level: the citizen inquiry processes led by the CLIs at the local level are supported by resources and networks provided by ANCLI, while the territorial rooting and long-standing experience of the CLIs gives robustness and legitimacy to the actions taken at national level through ANCLI.

IV - 2.3 Linking the activities of the CLIs with a broader territorial perspective: the follow-up of nuclear activities as a contribution to the quality of life on the territory

The first CLI established in France in 1977, on the nuclear site of Fessenheim in the Alsace region, was the result of a compromise: the establishment of the CLI was presented by the State as a condition for the creation of the nuclear power plant and the follow-up of its operation.

The opening of the follow-up of nuclear activities to territorial actors has changed the nature of this follow-up, which becomes no more focused only on the issues of compliance to regulatory standards but envisions the security of the territory in a broader sense. Indeed, the CLI consider the potential impacts of the facility on health and the environment regardless of the administrative divisions and of segmented regulations. Typical issues addressed by the CLIs are: what are the risks associated with nuclear fuel transportation (which is an issue that goes beyond the strict boundaries of the nuclear site), what is the concentration of tritium in the environment (even if tritium discharge limits were respected) and what are the related health risks? What is the impact of warm water discharge on fishing activities? These examples are illustrative of the questioning of the CLIs, which are as much interested in the safety of the facility and to the compliance to regulations and standards, as in the broader impacts the facility may have on the territory and on the quality of life.

In a context where nuclear facilities have an important local economic weight, the CLIs constitute an instrument of counter power insofar as their members see these Commissions as a means to balance the decision-making on the operation and monitoring of nuclear facilities and to ensure that the local concerns about safety and health and environmental risks are duly acknowledged and addressed.

Annex 1 – GLOSSARY

ANCLI	Association Nationale des Commissions Locales d'Information
ANDRA	Agence Nationale de Gestion des Déchets Radioactifs
ASN	Autorité de Sûreté Nucléaire
CEA	Commissariat à l'Energie Atomique
CHSCT	Comité d'Hygiène, de Sécurité et des Conditions de travail (Health and Safety Committee)
CIGEET	CLI for Tricastin nuclear facilities
CLI	Commission Locale d'Information – Local Information Commission
CLIS	Comité Locale d'Information et de Suivi (Bure)
CNDP	Commission Nationale de Débat Public
CPDP	Commission Particulière de Débat Public
CSPI	Commission Spéciale et Permanente d'Information (CLI for La Hague reprocessing plant)
DDASS	Departmental health and social services
Department	Administrative constituency (app. the size of a county)
DGSNR	Direction Générale de Sûreté Nucléaire et de Radioprotection (until 2006 - now ASN)
DIREN	Direction Régionale de l'Environnement (State administration at the level of a region, in charge of the environment)
DRIRE	Direction Régionale de l'Industrie, Recherche et Environnement (State administration at the level of a region, in charge of the control of industrial risks)
EDF	Electricité de France
EPR	European Pressurized Reactor
FRAPNA	Regional Federation for the Protection of Nature for the Rhone Alpes region
IEER	Institute for Energy and Environmental Research
InVS	Institute for Public Health Surveillance
INSERM	National Institute of Health and Medical Research
IRSN	Institut de Radioprotection et de Sûreté Nucléaire
OPECST	Office Parlementaire d'Evaluation des Choix Scientifiques et Techniques
PNGMDR	Plan National de Gestion des Matières et Déchets Radioactifs (loi du 28 juin 2006)
Préfet	Head of the State administration in the Department or Region
SEIVA	Structure d'Echanges et d'Information de Valduc (CLI for Valduc CEA nuclear facility)
TSN law	Law on Nuclear Safety and Transparency, 13 June 2006