

chapter 8

COMMUNITY OUT-REACH

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TOTAL'S CO₂ CAPTURE, TRANSPORT AND STORAGE (CCS) RESEARCH PILOT PROJECT IN LACQ – INAUGURATED IN JANUARY 2010 WAS NOT ONLY A TECHNICAL EXPERIMENT, BUT ALSO A SOCIAL AND LEGAL INNOVATION.

This Project was one of the first integrated CCS projects in the world at this scale, and the first to be authorised in France.

The social dynamics of this project were particularly interesting at the local level. The CO₂ storage site was close to a fairly densely populated area - the city of Pau and its neighboring cities had nearly 150,000 inhabitants in 2007. The CCS chain started at the Lacq Industrial Facility (located 30km from the injection site). The communities around the Industrial Facility have been living for over 50 years with a high level of industrial activity near their homes, however, the communities nearest the storage area, tend to be semi-urban or rural with less familiarity of industry.

After describing the local context, this chapter presents the local actors and describes the “concertation”¹ process that was led both before and after the official permit request for the Lacq Pilot Project. The final sections of the report present the results of a survey of the Jurançon population and the analysis of the press coverage from their project.

Approach

To obtain the most exhaustive description of our case, we followed the monographic approach, which led us to use several social science research methods. These methods included: bibliographic research, face-to-face interviews, passive observation, participative observation (one of the authors is a member of the Project's supervisory commission - CLIS), qualitative and quantitative media analysis of the press, as well as a local population survey. Results were discussed and validated with the stakeholders at several workshops on CCS, organized by CIRED and others.



01: During a field visit, Nicolas Aymard, Total Project Manager, presents the CCS project to the researchers working within the framework of Soceco-2 research program (2008) - PHOTO CIRED.

1. “Concertation” is a French word used here, it describes an institutional and legal procedure. For details, see Section 4. Etymology: concertare (Latin), to combat, to dispute, to keep up with [in French: combattre, disputer, rivaliser]. The French word “concertation” keeps a common sense of reciprocal or mutual interaction or control, among things or persons, and is “process-oriented” far more than “decision-oriented”. Synonymy: French word “concertation” is near synonymous (metonym-

ically) with the French “négociation”. The verb “concerter” is synonymous, in order of decreasing probabilities, with: combiner, préparer, arranger, calculer, préméditer, mûrir, organiser; that is in English, respectively: to combine, to prepare, to compound, to calculate, to premeditate, to mature, to organize. Cf. Dictionary of [French] synonyms of CRISCO (Caen University) via the CNTRL website: <http://www.cntrl.fr/synonymie>

8.1

LOCAL CONTEXT

Total's integrated CCS Pilot Project takes place in the Gave de Pau river valley, in the land of Béarn, which is a part of the Pyrénées-Atlantiques (64) administrative department of France.

The Lacq Natural Gas Field was discovered in 1951. It has been an important asset for France, providing up to one third of the country's domestic natural gas requirements, and thousands of jobs. A new city (Mourenx) was built for workers coming from all over France and abroad, then Pau's (capital of Béarn) population doubled, and a strong local corporate and union culture emerged.

In the wake of changes brought about by technology, Total's large Science and Technology Research Center (Center Scientifique Jean Feger) developed global recognition for its expertise, the UPPA (Pau and Pays de l'Adour University) developed its sciences department, and the industrial incubator Helioparc added a growing conglomerate of grey matter in Pau.

Gas production peaked in 1982, then the flow started to decline around 2009 and the field's economic life was being considered by private and public actors in terms of continued progress of industrial activities.

In 2008, Total's crucial decision to reduce gas production to 300,000m³ per day (compared to 2.5 million m³ per day during the preceding few years) was made, in order to provide Lacq Chemical Industries with a supply of gas for around the next 30 years. In 2010, Total announced that commercial gas production in Lacq would cease in 2013, putting an end to the great Béarn gas epoch. It was therefore time to address the future of the field and the community that relied on it.

The depleted wells closure and reclamation plan was effectively implemented in 2013. The first wells impacted by the closure campaign were stopped in September and the last ones on 15 October. Of the 46 wells in the field, 11 will be maintained: 5 to feed local industries (Arkema, Sobegi, Toray...) via the Lacq chemical cluster LCC30 project, 5 placed in reserve, and 1 will be left to enable observations. Plugging of the permanent wells is planned in three stages:

- Mid 2014 for the Meillon field,
- End of 2015 for the Lacq field,
- 2016 for the Rousse site near Jurançon after the CO₂ injection pilot has been completed. This site will then be subject to a three year mandatory monitoring period.

Thus, after a 50 year natural gas bonanza, economic development plans for the valley are being reinvented, and several specialty chemical production facilities, including a bioethanol plant and a carbon fiber plant have been attracted. In this context, with the economic future of the area at stake, Total's CCS project announcement had the potential to offer real value to the community. The project fits with the firm's broader strategy to responsibly manage the plants shutdown, not only by supporting local small and medium enterprises through its subsidiary *Total Développement Régional* (Total DDR), but also by directly investing in training and R&D activities on the platform.

Lacq's natural gas is highly corrosive and dangerous, because it contains high quantities of Hydrogen Sulfide (H₂S) and Carbon Dioxide (CO₂). Yet the processing plant's safety record shows no fatal accidents despite having people living very close to the plant. However, the risk is not only near the processing plant. The gas field extends dozens of kilometers beyond Lacq, including a stretch underneath the city of Pau. Consequently there is a wide network of pipelines in the area. These may have a low impact for people who are new to the area, especially since some of them are no longer in operation, like in Rousse. However, local citizens can have a memory or direct knowledge of the visual, air and noise pollutions that come from living in a valley rich in heavy industries.

A benefit of citing infrastructure projects in an area very familiar with heavy industries is that local institu-

tions have experience with managing dangerous gases and pipeline risk. Since the beginning of the oil and gas production in this area various liquid streams have been re-injected into the geologic structures. Some of these liquids came from the underground fields themselves, some came from the processing plant. Injection of liquid waste from other chemical plants in the industrial park is currently authorized in the geologic formation known as "Crétacé 4000". This is an economic opportunity, as some chemical waste streams would require up to 600 €/t to be processed otherwise. That opportunity remains a significant asset for the region, as only 2% of the disposal capacity has been used up in 40 years.

Following a recommendation by the French National Commission on Public Debates (CNDP), in 2001-2002 a "concertation" took place on whether to renew the Crétacé 4000 permit (Metras 2001). Even if all this was not tied to the CCS project technically, legally or administratively, it contributed to the local political culture of "concertation" about industrial risk and geological injection.

8.2

LOCAL ACTORS

When the Project started, Total was the fifth largest publicly-traded integrated international oil and gas company. It operated in more than 130 countries and had 96,950 employees. In Lacq, more than 850 persons were directly employed by Total Exploration Production France. In addition, Total's main research center, dedicated to oil and gas exploration (*Centre Scientifique Jean Feger*) is located in Pau, with more than 2,000 employees (Total and subcontractors). Total is widely established in the Pyrénées-Atlantiques territory, and even beyond its own employees it supports a network of economic actors. The balance of local economic and political power is clearly tilted towards the largest French multinational.

Locally, the Direction Régionale de la Recherche de l'Industrie et de l'Environnement in Aquitaine (DRIRE)² administration represents the interests of the State. DRIRE has the responsibility to investigate the injection permit request and prepare the decision by the Prefect, taking the national public good into account, as well as the concerns of local communities and businesses. The DRIRE played a key role in organizing the public dialogue opportunities for the Lacq CCS Project.

2. This branch of the administration was renamed in January 2011 the Direction Régionale de l'Environnement et de l'Aménagement et du Logement (DREAL).

Civil Society

The Lacq CCS Project touches on 11 cities, making for a diverse set of stakeholders and local interests. People living close to project infrastructure, the local communities impacted by a project, and the elected representatives for those local communities and cities, are the key stakeholders considered when discussing civil society. The civil society groups with influence over the Lacq Project are diverse, but they can be largely split into one of two categories:

- Communities close to the capture site which benefit from industrial jobs at the Lacq Plant. Their economic wellbeing is inextricably linked to the operation of the natural gas field, and the impact of the closure of the field on them is a critical issue. Total's reputation and involvement in these local communities through educational outreach and other initiatives, has earned the company a positive reputation with local stakeholders. As a measure of the Corporate Social Responsibility demonstrated by Total, Arquizán (2008) writes that over the last 30 years, Total DDR lent 140 million euros to 500 starting companies in the department.

- The picture is different at the other end of the pipeline, at the storage site. This area is populated by wine growers and farmers, and is less affected by the employment situation in the Lacq industrial area. They belong to a territory of about 10 km² (1,000 ha) officially recognized as producing "Vin du Jurançon", an exportable ancient (1936) Appellation d'Origine Contrôlée (AOC) quality label wine³. Patches of the Jurançon territory have also started to become residential neighborhoods for the larger Pau city.

Elected Officials

The positions of elected representatives in the different Project areas reflect this variety of interests. Mayors in the Lacq Basin publicly took a positive position towards the project from the start, and made this known to other players at the first CLIS⁴ meeting held on June 3, 2008. Mayors from the Jurançon hillsides did not take a position during the Project's "concertation", which occurred during the campaign period for municipal elections. After the March 2008 elections, the new Mayor of Jurançon took a stand by questioning Total's responsibility after its departure from the site. This remained his main negotiating position. The strength of the question was backed by the Mayor's position as a Professional Judge in Toulouse's administrative court, and the project's management recognized its seriousness.

3. Jurançon's royal fame goes back to 1553, when infant Henry IV's lips were rubbed with garlic and wet with wine from the local region at his baptism...

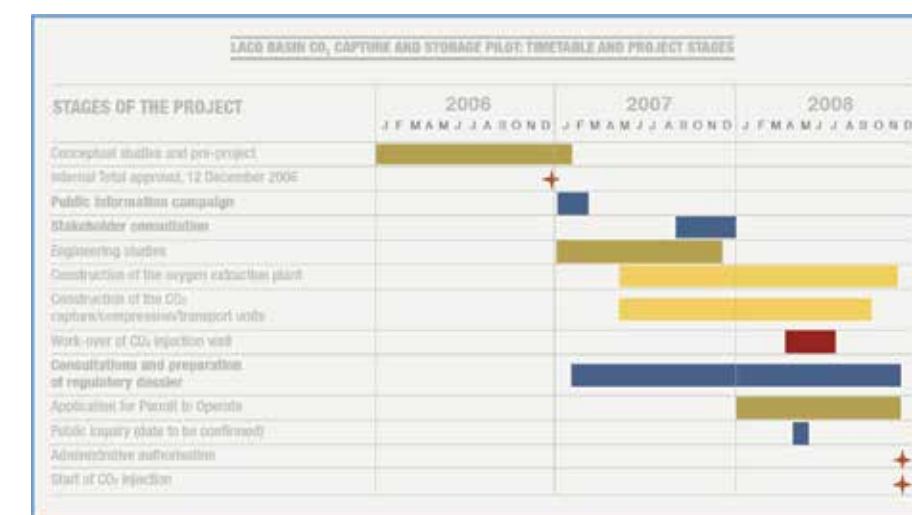
4. Commission Locale d'Information et de Suivi, CLIS : local commission on information and follow-up.

Environmental NGOs

Given the industrial history of the region, environmental NGOs are fairly active, watching over new project developments and implementation. At the start of the Project, the ENGO groups had no defined position on CCS, then two existing associations jointly articulated explicit opposition to the project: *Santé-Environnement-Bassin de Lacq* and SEPANSO Béarn.

In addition to the arguments against CCS as a technology expressed by France Nature Environnement (FNE), they argued that the project would be ineffective, expensive and, given the population density and seismic activity in the local area, presented risks for neighbours (Mauhourat & Lambert-Habib 2008). In addition, a specific association named *Coteaux de Jurançon Environnement* (CJE) was created by local citizens concerned about the injection project, in order to inform and mobilize the local population. CJE and SEPANSO actively participated in the official public discussions at a level where isolated citizens could not have attended directly.

The launch of the Lacq CCS Project was announced on 8 February 2007. CO₂ injection was expected to begin at the end of 2008 and last for two years. At this point, no subsequent phases of the Lacq Project had been decided, other than the necessary long-term injection site monitoring. The first « Lacq Project Information Dossier », a key communication created with the support of a consulting team (C&S Conseils) and issued by Total in October 2007⁵, only shows a draft project timetable covering the period through consultation, construction, permitting, the next mandatory Public Inquiry and terminating with the commencement of injection. [02](#)



[02](#): Lacq CCS pilot project, draft timetable in 2007 October (Total⁵)

5. "Summary Lacq Project Information Dossier, Key information on the Lacq carbon capture and storage project", Total 2007, November. <http://total.com/en/co2-total-synthese-gb>

« Captage-stockage de CO₂ : synthèse du dossier de concertation du projet pilote de Lacq », Total octobre 2007. <http://total.com/fr/lacq-synthese-dossier-concertation-2>

Stakeholder analysis was conducted around the Lacq CCS Project by an independent consulting company commissioned by Total. This analysis was based on face-to-face interviews in the field, conducted during the first quarter of 2007, participation at discussion workshops and a bibliographic survey.

Figure 3 below illustrates the situation around September 2008, at the end of the public inquiry phase. The graph plots the positions of the various stakeholders in terms of their varying levels of influence and support for the Project. **03**

The key players are those with both a high degree of influence and support for the project. They are located towards the upper right of the matrix. They appear to be the industry actors, institutions and experts. They are allied for the development of CCS in France, and expect that the success of the Lacq Pilot will help reinforce their position.

The media, national environmental NGOs and most, but not all, town councils had a minor role in the discussions. A lack of understanding of a new technology could explain why these players did not have a clear position and influence on the future of the industry. Overall, the top-left corner is empty. This shows that no opposition has been influential in the early phases of implementation. The overall social context was favorable. Nevertheless, Total set up an Independent Scientific Committee to advise the project team during all phases of the pilot. The Scientific Committee included representatives of the French Authorities and independent scientific experts.

“At this stage, Total wishes to open a broader dialogue with all stakeholders: elected officials, citizens, economic players, social bodies and community groups. The aim is to foster an exchange of knowledge and information, to answer questions and allow all interested parties to air their views on the aims and methods of the project as well as the surveillance and control measures being taken. We at Total hope that this dialogue will prove useful to all stakeholders and help us with decisions that must be taken in the future.” ⁶



8.3

THE CONCERTATION PROCESS

WHAT IS A CONCERTATION?

Principles

Although the French institutional expression “concertation” implies multiple stakeholders, it does not necessarily indicate opposition. Concertation is a form of dialogue, different from others like negotiation, debate, consultation and mediation:

- ↳ Contrary to negotiation, concertation does not aim to reach a decision collectively, only to prepare it⁷. When the administration engaged the local community in concertation, it did not bind its hands. The decision to authorize the project or not, was always the administration’s. However, there was a promise to pay real attention to the results of the concertation in the decision-making process.
- ↳ A concertation results in a specific decision to be made soon, as opposed to a debate which can happen at a more ideological level. There had been no national debate on CCS in France when Total announced its project.

- ↳ Concertation is more than consultation. It cannot be limited to asking an opinion. The concertation had a consultation phase, as described below, but it then extended beyond that. Concertation implies an exchange of arguments and considerations among stakeholders, to make the different viewpoints explicit but without exaggerating differences. Concertation is a strengthening process for action⁸, intending to preserve the common dimension of a project without leading to undue distortion, nor being in any way a co-decision procedure.
- ↳ Mediation is about facilitating a collective decision by using an independent third party. In contrast, a concertation process can be led by one of the stakeholders, or by a dependent third party. Here the concertation was initiated by Total, and then led by the Administration.

Applicable Regulations

Concertation has been increasingly viewed as an essential principle for public action, particularly when social acceptance of private projects is at stake and can only be addressed through dialogue with local stakeholders.

7. Cf. (1) above.

8. Of course, parties having opposing views may not find “perfect” resolution...

Highest influence		Préfecture des Pyrénées-Atlantiques DRIRE Aquitaine IFP, INERIS, BRGM	European Commission MEDDAT / DGEMP Lacq basin industrial companies
High influence	Coteaux Jurançon Environnement Santé Environnement du Bassin de Lacq Sepanso Béarn / France Nature Environnement	Conseil Général des Pyrénées-Atlantiques Pau town council	Communauté des communes de Lacq
Low influence	Neighbors National press	Jurançon town council Laroin town council	Monein town council Mourenx town council
Lowest influence	Greenpeace international	WWF	Université de Pau et des Pays de l'Adour
	No support	Low support	High support

03: Influence-support mapping of the stakeholders for the Lacq CCS project.

6. Jean-Michel GIRES, Senior Vice President, Sustainable Development and Environment – Total; in “Lacq CO₂ Capture and geological storage Pilot Project, Project information Dossier”, Total 2007 October.
<http://total.com/en/co2-lacq-total-project-information-dossier>

Concertation is institutionally linked to the principle of participation of the parties involved in a project, as defined by international conventions, and specifically by the Aarhus Convention (*public access to information, public participation, public access to administrative or judicial proceedings*), ratified by France in 1998⁹.

According to the concertation charter of the French Ministry of Environment and Country Planning¹⁰ in 1996,

“Concertation provides value for representative democracy with more participatory democracy”, and it aims to “enhance public involvement in the design of projects, including where laws and regulations already prescribe it”.

This is notably the case with regards to the French public inquiry procedure (a legal device enabling mandatory public information and requests for public comment for certain types of projects¹¹) initiated by the Prefect.

The public inquiry procedure can be implemented in the municipalities affected by a project, and would be conducted by an Investigating Commissioner selected by the President of the Administrative Court.

If the decision-making authority deviates from Investigating Commissioner’s advice – which it is not bound by – the Investigating Commissioner’s advice with arguments may be used by the Administrative Court within two months.

On 01 March 2005, the Environment Charter became a French Constitution Act. It legislates the public participation principle in section 7. More recently, the legislation enacted on 27 December 2012 updated the conditions in which the public participation principle may and must be applied to the State Authorities’ decisions. As a general rule, a concertation may still be set up by various stakeholders even prior to the regulatory requirements implementation.

The Lacq CCS Pilot Project took place during a period of evolving legal debates, regulatory developments following Grenelle I (09 August 2009) and II (12 July 2012), and in anticipation of changes in European regulation and national transpositions.

In Practice

The added value of a concertation is provided by embedding it within the local context of a project - legally independent, but subject to the geographical, social, political, economic influences or constraints on its social acceptability. The concertation is not about negotiating around a project, but negotiating around the participatory process itself, having to efficiently and fairly involve all the stakeholders, including: elected representatives, citizens, administrations, technical and legal experts, and various organized actors in civil society like NGOs and enterprises.

The 1996 MATE Charter establishes a general framework and guiding principles for good practice:

- (Section 3): “The concertation implementation is driven by a political will. Thus it is the task of public authorities (elected representatives, administration) to ensure its implementation. If contracting authority is not a public authority, then it has to keep the competent authority informed of the project and to define in agreement with it the concertation modalities”¹².

12. « La mise en œuvre de la concertation procède d’une volonté politique. Il incombe donc aux pouvoirs publics (élus, administrations) de veiller à sa mise en œuvre. Lorsque le maître d’ouvrage n’est pas une autorité publique, il lui faut alors tenir l’autorité compétente informée de son projet et définir avec celle-ci les modalités de la concertation (Article 3). » MATE 1996.

- (Section 6): Furthermore: “concertation is a process which continues to the actual completion of the project and even beyond if need be. It is advisable for partners to agree on a concertation path marked by stages and key times, each resulting in a progress report”¹³ Project context, project benefits, project implementation.
- (Section 7): “If the presence of a guarantor is proven appropriate, then he must be designated on a consensus basis as wide as possible. The concertation guarantor must be impartial and should not take sides regarding the case substance.”¹⁴
- Finally in Section 8 it is made clear that, concertation is funded by the project owner, and the concertation assessment report has to be included in the public inquiry file if such an inquiry is prescribed.

The French public debate¹⁵ is aimed at maturing opinions, forming perceptions and assessing changes or sustainability over time. Nevertheless concertation makes actors take in

13. « La concertation est un processus qui se poursuit jusqu’à la réalisation effective du projet et même au-delà si nécessaire. Il est souhaitable que les partenaires de la concertation se mettent d’accord sur un cheminement, marqué par des étapes ou des temps forts, chacun donnant lieu à un rapport intermédiaire (article 6). » MATE 1996.

14. « Lorsque la présence d’un garant de la concertation se révèle opportune, sa désignation procède d’un consensus aussi large que possible. Le garant de la concertation est impartial et ne prend pas parti sur le fond du dossier (article 7). » MATE 1996.

15. The law 95-101 of 02 February, 1995, “Strengthening the Environment Protection”, creates a National Commission for the Public

to consideration the stakeholders’ goals and ensure their compatibility with a project implementation plan, through a dialogue that works within the practical necessities of the project and its specific purpose - structured exchanges targeting a common interest.

The first step to setting up a concertation, is to identify and review all stakeholders and to engage in individual interviews with potential participants (possibly represented by spokespeople), and to submit them an initial assessment. The most complete and reliable information available must be provided to participants on request and as early as possible, thus ensuring the exchanges are in keeping with the goal of concertation.

Debate (CNDP). The CNDP is responsible for organizing public participation in the development of large-scale, publicly or privately initiated projects or facilities of national interest, since there are strong socioeconomic stakes or have significant impacts on the environment or country planning (here the country planning represents public policies undertaken for a balanced development of regions or for a spatial organization in accordance with a guiding vision). The CNDP later becomes an independent public authority (AAI, Autorité Administrative Indépendante) under the law of 27 February, 2002. This law can also define the conditions by which developers must offer some form of public participation – a Public Debate or a concertation, at the discretion of the National Commission.

ANNOUNCEMENT, SOCIAL CHARACTERIZATION AND CONCERTATION (2007)

Figure 2 shows the Project’s general timeline and its main events as reported in the regional press. The Project’s final investment decision was made at the end of 2006, and the first press statement was released 08 February, 2007 (Total 2007b).

Total’s outreach activities, comprehensively reported on their website (Total 2008), were voluntary and started well in advance of the formal administrative process (Cf. figure 1). C&S Conseils, a specialist communication consulting company from Paris, helped to study the social context, define the Project’s engagement methods, conduct the concertation and write the associated communication materials.

Following the initial public announcement of the Project, a public information meeting was held at Jurançon in March 2007. The meeting was for people neighbouring the future injection site at Rousse. Generally, there were very few negative feelings evident at this meeting. The discussions centered on questions about the possible consequences, noise or visual impacts, land zoning change and financial compensations for the city.

Next a social site characterization study was performed to help organize the concertation. Between June and September 2007, C&S Conseils conducted about forty interviews with local and regional stakeholders: elected representatives including all the Mayors of the cities crossed by the pipeline, administrations, associations, businesses, and with the members of the project’s scientific follow-up committee.

9. Cf. French governmental website: Toutsurlenvironnement.fr, and Directive Inspire 2007/2/CE, 2007 March 14th (Infrastructure for Spatial Information in the European Community).

10. Ministère de l’Environnement et de l’Aménagement du Territoire (MATE).

11. This device is governed by the law of July 12, 1983. The section 236 of the law of July 12, 2010, has amended the section L123-1 of the Environmental Code as follows: “The purpose of the Public inquiry is to ensure public information and participation, as well as taking account of the third parties interests in the elaboration of decisions that may affect the environment” (“L’enquête publique a pour objet d’assurer l’information et la participation du public ainsi que la prise en compte des intérêts des tiers lors de l’élaboration des décisions susceptibles d’affecter l’environnement”).

This study led to the concertation itself that included:

- ↪ Commitment to a “*Charte de la concertation*” (Total 2007a) in which the company states the transparency guidelines according to which it will conduct the concertation. A guiding principle was that “*All participants in public dialog do not take part in the final decision but all participants in the decision making take part in the public dialogue.*”
- ↪ Publication of a 52 page brochure (C&S Conseils 2007) and an 8 page synthesis document. The documents were organized around four topics:
 - ↪ climate change
 - ↪ CCS technology
 - ↪ goals and characteristics of the Pilot Project
 - ↪ impacts and conditions of implementation
- ↪ A section of about 10 pages on climate change, CCS and the Project on the Total.com website, and Project exhibition displays at meeting places and at Pau Airport.
- ↪ Oral presentations and Questions/Answers sessions at three public meetings organized in the town-halls of Jurançon, Pau and Mourenx. A total audience of about 300 participants attended these meetings, which each lasted about two and a half hours. Talks by Total representatives were complemented and discussed by national experts from outside the Project.

Meeting summaries were published on Total’s website (Total 2008). The main local discussion topics were

related to security, land value, image risks for other activities like wine growing and visual impact on the site. Discussions around the regional effects of the Project, centered on economic attractiveness, industrial development, jobs and taxes. General discussions around CCS, examined its costs, scale, additional energy needs, regulation, public subsidies, long term responsibility and risk control.

Concertation Outcome

According to Total 2008 the outcome of the concertation was first a clarification with respect to the agreements and disagreements that arose during the process.

All participants agreed that:

- ↪ Climate change is an urgent issue
- ↪ Increasing energy conservation, efficiency and renewables is more important than CCS
- ↪ A governance open to civil society is a goal to reach
- ↪ The Total Project contributes to the economic renewal of the area
- ↪ Risk management is an absolute priority.

There were two points of dissent around:

- ↪ The potential of CCS technology to mitigate climate change by reducing Greenhouse Gas emissions
- ↪ Whether CCS should be regulated under the Mining Code or the Code for the Environment, a point linked with the question of the legal status of CO₂ (is it a waste or not?).

There were several substantive outcomes of the concertation:

- ↪ An information day on climate change and mitigation options was held on 02 October, 2008 in Pau’s historical Congress Centre (Penot 2008)
- ↪ Agreement to continue the dialogue between parties by setting up a local commission on information and follow-up (Commission Locale d’Information et de Suivi, CLIS)
- ↪ Total promised they, “*will help local projects related to climate change mitigation (provided they are supported by the city)*”, and that discussions on taxes could be opened.
- ↪ After the concertation, the project’s neighbours formed an association – Coteaux de Jurançon Environment (CJE) officially registered on 16 January, 2008
- ↪ The Project’s technical plan was amended to decrease visual impact and noise. It was decided that the compressor at the injection site would be located inside a shelter.

FORMAL DIALOGUE AND AUTHORIZATION (2008-2009)

In France, large industrial projects have traditionally been justified by public interest and technical progress, with the State having the ultimate authority and responsibility for deeming what is in the national interest. However, increasingly, this centralized concept is being broken down with the relocation of a number of State competences to Territorial Administrations and local communities (with decisions deferred to the State Authority only as a last resort). Therefore, regional and local authorities, as well as organizations from civil society, now demand to be more systematically involved in decision-making.

The opening of a more inclusive public decision making process has been formalized in a stream of laws starting in the mid-seventies with the environmental impact assessment law of 1976 which was reviewed in 2002 in the context of the adoption of the Aarhus International Convention.

In April 2008, Total filed the administrative authorization request (Demande d’Autorisation d’Exploiter) with the Pyrénées Atlantiques (64) departmental Prefecture, in charge of examining the permit request under the DREAL regional authority.

This was the first CCS project to be processed in France, so there were no CCS-specific regulations. This Project would test the existing regulatory frameworks in France and help shape future CCS-specific regulation in anticipation of a transposition from the

European Directive. The Pilot Project offered an opportunity to define a regulatory framework and set thresholds based on real measurements, and was to be progressed through a replicable acceptability process.

Communication and Consultation

During the spring of 2008, Total held meetings with Mayors and neighbors to the Project, adding a workshop in Jurançon Council in July, and an open site visit complemented with an information letter to neighbors in December. Total also established a dedicated phone line for inquiries, and published a quarterly newsletter.

Formal discussions on the project were conducted mostly at the CLIS ad-hoc commission (Commission Locale d’Information et de Suivi). The CLIS was officially enacted on April 30th, 2008 by the Pyrénées Atlantiques Prefect. In the absence of specific CCS regulation, the CLIS was created using the legal model of commissions established to follow-up on landfill sites and the Crétacé 4000 CLIS. The group included: 1 State representative; 9 locally elected officials; 2 delegates from workers’ unions; 4 from associations; 5 experts and 4 Total employees.

The CLIS was established to discuss the authorization request and sit at least for the entire project’s life. It met 8 times between June 2008 and December 2009, about twice a year.

The CLIS heard formal reports on the Project from Total and experts like the BRGM (Bureau de Recherches Géologiques et Minières), the French Geological Survey. Its website (Commission Locale d’Information et de Suivi 2010), which was hosted

on the Prefecture’s official website, provides open access to the reports and a significant range of supporting material. The CLIS visited the installations twice. During the first visit they discussed the Project onsite with residents close to the Project site. Ultimately, the CLIS released a press release about the project, but did not conduct a formal public meeting at the storage site. The CLIS also asked for, and heard a report on, the history of accidents with natural gas in the area, reviewed the monitoring plan, security exercises and a local perception survey. The CLIS also reviewed and improved the draft authorization document.

Associations opposing the project, CJE and SEPANSO Béarn (a federation affiliated to France Nature Environment), participated actively in the CLIS meetings. At the outset, CJE’s moderate members were willing to engage with Total. These initial members (around 120 people) were from diverse profiles, and included both rural people who had been living in Jurançon for a long time, and newly arrived residents. At the end of Summer 2008, the association was not ready to organize big demonstrations, but could mobilize reliably a more radical faction in opposition to the project, for example protesting in front of the injection site during the CLIS visit.

- ↪ CJE’s scientific advisor summarized CJE’s sustained objections in a column published in a leading national newspaper (Pépin 2009). Total was depicted as a big corporation that could not be trusted to develop CCS responsibly, and its concertation efforts were portrayed as mostly

marketing or communication. The risk analysis was criticized for not considering massive release scenarios (even though this was “not possible” according to IFPEN¹⁶ who were advising Total on the project), and the security exercise was criticized for not directly involving neighbors.

Opponents to the project questioned the independence of the BRGM, and CJE argued that the project could have been reviewed by an inter-disciplinary panel including foreign experts. BRGM replied with four arguments:

1. BRGM, as the public reference establishment for geosciences is legitimate to examine the permit request: providing technical expertise to the administration is one of the core missions it has been created for
2. The assessment was only focused on aspects in which the BRGM is competent, and the expertise conducted by a newly created unit of 13 specialists of security and impacts of CO₂ storage (BRGM 2009)
3. The unit’s personnel was not involved in site selection and characterization studies, and BRGM’s current research partnership with Total at the Rousse site are not connected to the injection permit request
4. It would have been difficult to find CCS experts that had never been involved in a joint research project with Total.

SEPANSO raised the issue that disagreements about the share of CCS in climate policies persist. They were not accepted as relevant by the CLIS, as they pertained to a national debate on energy policy choices.

The opponents requested the release of more technical reports. Total argued commercial reasons to keep some documents out of the public domain, but invited the experts to consult them on their premises. The CLIS President noted that the existing legal recourse against the permit may hinder transparency.

An administrative public inquiry (carried out by the *Préfecture des Pyrénées-Atlantiques*) was held from July 21 to September 22, 2008 in 4 cities. Participation was very weak in Lacq and in towns along the pipeline, 90% of the comments were received in Jurançon. CJE criticized this inquiry for being conducted during the summer holiday period, and for shaping the final advice to sound quite positive while 56 out of the 60 recorded comments were negative. However, the surveyors assessed that the replies by the project-holder to the objections raised by the citizens were satisfactory. In response to critics, it was stated that the survey was not a referendum and that 60 self-selected voices, that is less than 1% of the population, were not representative of the wider community.

A final technical problem had to be examined before injection: signals from the three seismic sensors at

the bottom of the well were lost, probably because of a broken optical fiber. Replacing the sensor would have delayed the start of injection by 9 months. Without the sensors at the bottom of the well, the seismic monitoring network would comprise of only the 7 sub-surface sensors, buried 200 meters deep. The permit specified that it was the operator’s responsibility to determine the necessary number of sensors. Total’s case that the incomplete network would be enough to monitor the site integrity was reviewed positively by two independent experts’ teams, so the Prefect did not cancel the authorization.

Municipal elections were held in March 2008. The project was not an issue in the campaign debates, as it was seen as a politically risky topic with little benefit for candidates in raising it. The newly elected Mayor in Jurançon initially took a stance against the Project, backed by a unanimous vote of the Municipal Council. The building permit for works needed at the injection site was not granted at first presentation, and had to be revised before being accepted.

Besides the Jurançon Mayor and Lacq’s cities community (Communauté des Communes de Lacq), other local elected leaders were mostly absent from the negotiations. From an initially tense relationship, after several meetings and site visits, the Jurançon Mayor’s position evolved and became favorable to the Project. The move dissatisfied a faction of the population. A partnership agreement was signed in April 2009. The agreement was described by Total¹⁷ as follows:

“Total has signed multiple patronage and sponsorship agreements in the Aquitaine region for decades, and Total Exploration Production France (TEPF) has a 50-year history on these oil production sites. This new storage project was hence framed in the broader context seeing the end of TEPF activities in Lacq and the satellite fields by the end of 2013, due to gas reserve depletion. This decline of a historical activity important for the region is subject to a policy of support and assistance in regional re-industrialization. It is also notable that the CO₂ injection required stopping natural gas production from the well, which was modest but nevertheless represented a direct income for the town.

Within this overall framework and without any mention of specific Rouse pilot, a sponsorship agreement for the amount of € 1.5 million was signed with the municipality of Jurançon to assist in the implementation of community projects especially in the field of sustainable energy (solar panels). More recently, the press echoed a sponsorship agreement of TEPF for the Region (an amount of €5 million was mentioned). This agreement is linked to the reduced activity of TEPF due to the end of the gas exploitation, and its connection with the storage project is all the more tenuous as the project has been underway since May 2009.”

The sponsorship agreement was not all new money specific to the new storage project, but rather a consolidated reappraisal of already granted monies.

The capture, transport and storage project was finally permitted on 13 May, 2009, 27 months after the initial press conference. There are no injection taxes. The first injection happened on 08 January, 2010, and on 11 January 2010, Valérie Letard, State Secretary in charge of green technologies and climate negotiations and Christophe de Margerie, Total CEO, formally inaugurated the CCS Research Pilot.



04: Inauguration of the CO₂ capture and storage facility in Lacq (France), January 11 2010: Valérie Letard, Secretary of State for Green Technologies, and Christophe de Margerie, Chief Executive Officer of the Group Total: “Our added value lies in our ability to develop increasingly complex resources from every point of view: technical innovation, environmental impact, social acceptability, political implications, etc.” Photography, caption, and quotation from Shareholders newsletter, 32, Spring 2010, Total.

16. IFP Energies nouvelles is a public-sector research, innovation and training center active in the fields of energy, transport and the environment.

17. De Marliave, personal communication, 6/10/2010, (our translation)

8.4

SURVEY OF THE JURANÇON POPULATION AREA AROUND THE INJECTION SITE (2008)

A questionnaire survey was designed and sent to the most sensitive fraction of the population of the city of Jurançon – those living closest to the planned CO₂ injection area. The area is partly rural, (mainly vineyards), and partly low density, residential housing, principally wealthy families and a significant proportion of retired people.

The survey was sent to named residents, with a stamped return envelope, and reached 1,206 mailboxes concentrated in the area of the pilot project (roughly one third of the mailboxes of the more than 7,000 inhabitants of the city).

The survey was sent out in October 2008, before the authorization but after the formal public dialogue so that most inhabitants should have been aware of the project either through the 2007 concertation or through the public inquiry set up during the summer of 2008.

The response ratio was 14%, which is satisfying compared to the 8%-10% that was expected: 167 responses were received – 153 were completed, 14 were returned clearly marked 'will not respond', it is assumed that these were from the most radical part of the CJE who saw a survey as potentially weakening its position.

Unsurprisingly retired people represented a large share of the respondents (42%), while 28% were employed in private companies, 12% in a public organization, 12% were independent workers, and 3% unemployed. This response ratio is good considering the survey length of 89 questions. The survey was organized in 5 parts: general questions about the context, information about the CCS Pilot, the concertation organized by Total, the formal dialogue (public inquiry and CLIS) and social acceptance.

CONTEXT

A first set of questions about the general and local context of the CCS Pilot was meant to evaluate the respondents' sensibility to global environmental and social issues.

To the question "Among the environmental issues, which do you feel to be the more worrisome? (two possible answers)", climate change came first (48%), before water pollution (29%), air pollution (26%), forest destruction (21%), overexploitation of agricultural resources (15%), soil contamination (13%), ozone layer reduction (10%), GMO (9%), and noise (5%).

For the following questions, 82% completely agreed or agreed with the idea that Humankind is completely responsible for climate change, and 91% completely agreed or agreed that it is urgent to act against climate change. When asked the question of what to do, the respondents overwhelmingly selected renewable energies and reduction of energy consumption.

Among the CO₂ storage techniques, the respondents choose the biological solutions (storing carbon in forests, before geological storage. At this time the result may reflect a common vision of a biological solution by which the CO₂ is "destroyed", as opposed to the vision of a geological disposal where CO₂ is merely stored with a risk of leakage.

After the series of questions on global issues, the survey goes into questions on local issues. Answers differ significantly from those to global questions. When asked which of the local problems is the most worrisome, climate change ranked seventh, after poverty and exclusion, environmental degradation, globalization, unemployment, technological risks and safety/terrorism.

INFORMATION ON THE CCS PILOT

Although information has been spread through newspapers, meetings organized by Total, and the formal public dialogue, there were still 7% of the respondents who said they had no information on the project. About 40% indicated that the first time they received information on the project was in 2007 (during the concertation organized by Total), another 9% stated

that this was at the beginning of 2008, 28% in the summer of 2008 (during the public inquiry) and 16% in the Autumn of 2008 (at the time of the survey).

When asked about how they were informed about the project, 41% of respondents cited the local press and other media. Total's newsletter sent by mail and information meetings were the information source for 27% of the respondents. The rest got their information mainly by word of mouth (24%). Only 10% of respondents declared they had accessed the Total website or other sites. Yet 55% of the respondents stated that the information they had on the Pilot was not sufficient.

When asked to indicate the most interesting aspects of the Pilot (several answers permitted), the respondents most cited response the scientific interest of the Project (65 responses). Less respondents cited economic development (29 responses), employment (27 responses), and industrial attractiveness (23 responses).

THE CONCERTATION ORGANIZED BY TOTAL

40% of the respondents knew that Total had organized concertation meetings. This information came to them mainly from the press (57% of respondents). Only 13% of the respondents had attended the meetings and even less (7%) had knowledge of the proceedings or outcome of the meetings.

When asked "which information source can provide you with additional information on the project" (several answers permitted), Scientists came first again (60 responses) and national environmental associations second (35). The information sources selected less frequently were Total, local politicians and local associations, with about 20 citations each.

FORMAL PUBLIC DIALOGUE (ORGANIZED BY THE PREFECT)

70% of the respondents said that a public inquiry was important to take into account the interests of those people living closest to the project. But only 9% said they actually participated in the public inquiry. 33% of the respondents declared that they had heard about the existence of the Local Commission on Information and Follow-up (Commission Locale d'Information et de Suivi, CLIS), and only 10% had been informed of the results of its first meetings.

SOCIAL ACCEPTANCE

The injected CO₂ was to be stored in an old gas extraction well. People in Jurançon are used to seeing gas wells and gas pipe manifolds which have been operating for more than 40 years in their landscape. When asked if they felt that Total had a good risk management record on those wells and pipes: 40% responded yes, 18% no and 40% did not know. 31% declared having experienced some nuisance from these installations, while 69% had no nuisance.

Asked if there was still a need to negotiate on the Pilot's implementation, a majority of respondents (51%) were affirmative. A small minority (15%) felt there was no need for additional negotiation, and one third had no opinion. It should be noted that these answers came after the public consultation.

Asked about who should participate in the negotiations on the Pilot's implementation, respondents covered a wide range of stakeholders as follows: neighbours and their associations (35%), local elected representatives (25%), environmental associations (22%), local services of the State (13%), and other interested industrials (5%).

Finally, the respondents were asked under which conditions they could subscribe to the Project (several answers permitted). Environmental protection guarantees came first (72 answers), along with safety guarantees (68 answers) and guarantees on the long term future of the injection site (51 answers). A few responses mentioned respect of cultural heritage (21 answers), jobs creation (20 answers), and financial compensation (15 answers). Five respondents answered that the existing conditions were enough, as opposed to 32 who indicated that they would not accept the pilot under any condition.

The survey results confirmed the wide differences in perception between local and global issues. Locally, social and local environmental issues are perceived to be much more important than climate change.

The questions about Project information demonstrated that the media and word of mouth are the primary methods for people accessing Project information, and that attitudes are weakly proactive in the search of in-

formation. The results also suggest that people have well contrasted opinions on the quality of their information sources. The low use of the available information could be due in part to the mistrust in information provided by Total.

Having started at the beginning of 2008 before the public inquiry, the CLIS had met several times before the opinion survey; its proceedings were available on the web. Answers about the CLIS and about the public inquiry corroborate the idea that, except for radical opponents, people have low motivation for direct participation in the formal public dialogue organized by the law. This result fits with the general conclusion of (Fourniau 2011) that the French model of public debate is waiting for a rebound.

Since most people did not engage in the concertation, to them the cost of negotiation is very small. This may explain why the demand is so high. Even after the significant diligence of the industry and administration, most respondents asked for more discussions regarding environment, safety and long term follow-up. This may point to the relevance of an enduring negotiation commission, the CLIS, as opposed to the one-shot public inquiry.



Christophe de Margerie, Total CEO, addressing journalists on the 2010 January 11th inauguration day : "Some people will always have doubts about CO₂ storage in the subsurface" (...) "In the case of Jurançon, we have convinced more than of the majority of people. That does not mean we can let go and stop informing".¹⁸ In "CO₂ into the subsoil: that's gone for real!", SudOuest, 12 January 2010.
One year later: "Climate : putting an end to burying our heads in the sand"

"The Pau climate defense association Coclipau and Coteaux de Jurançon Environnement called for a demonstration on Saturday morning in Clémenceau Place to denounce the current pilot of CO₂ storage under Chapelle de Rousse, by Total, and the hazards one may fear for the population. In the light of Japanese events showing that man cannot tame nature, demonstrators were calling for us to stop burying our heads in the sand to not see the danger. To this end, they had made an ostrich from recycling materials".¹⁹ Photo Guillaume Bonnaud, in SudOuest, 2011, March 14th, Pau.

05: in Sud Ouest journal, 2010 January 12th and 2011 March 14th (Extracts).

18. Authors' translation from : « Il y aura toujours des gens qui auront des doutes sur la technologie du stockage du CO₂ dans le sous-sol » (...) « Dans le cas de Jurançon, nous avons convaincu plus qu'une majorité de personnes. Cela ne veut pas dire qu'il faut lâcher pour autant, et arrêter d'informer ». SudOuest, « Le CO₂ dans le sous-sol : c'est parti ! », 12 janvier 2010.

19. Authors' translation from : « L'association paloise pour la défense du climat Coclipau et Coteaux de Jurançon Environnement appelaient au rassemblement, samedi

matin, place Clemenceau. Un rassemblement conçu pour dénoncer l'expérimentation en cours de stockage du CO₂ sous la Chapelle de Rousse, par Total, et les risques qu'on peut craindre pour la population. À la lumière de l'actualité nippone qui montre que l'homme ne peut dompter la nature, les manifestants appelaient à cesser la politique de l'autruche, qui consiste à plonger la tête dans le sable pour ne pas voir le danger. Ils avaient, pour cela, réalisé une autruche à partir de matériaux de recyclage. » SudOuest, 14 mars 2011, Pau.



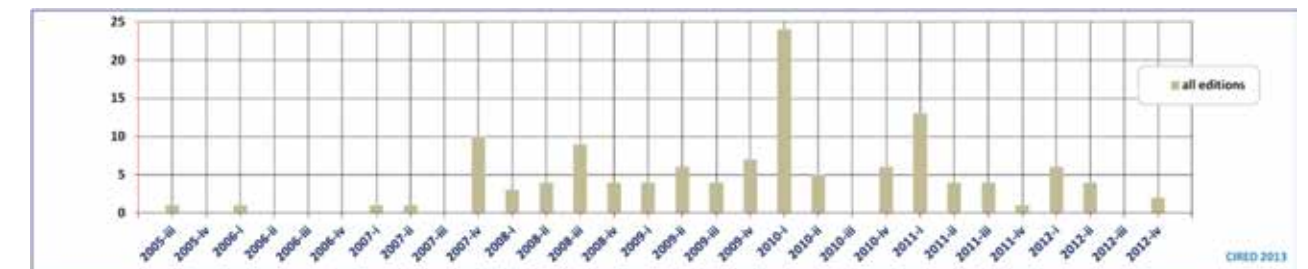
8.5

THE SOCIAL IMPACT, AS READ FROM THE PRESS (2005-2012)

As the survey indicated that information mostly comes to citizens through the local press, the main daily newspapers were analyzed over the period 2005 - 2012 for articles referring to the Lacq CCS Pilot Project. This gives us a vision of the social impact of the Project.

At the national press level, influential general news titles Le Monde, Liberation and Le Figaro, and influential business news titles La Tribune and Les Echos mention the Lacq CCS project only sporadically, always in the context of the more general question of CCS. We conclude that this local project never became an object of public debate at a national level.

At the regional level of Aquitaine, the dominant newspaper is SudOuest. This daily journal, founded in 1944, was France's second largest regional newspaper in 2010 with more than a million readers (Audipresse 2010, EPIQ survey). Over the period going from 2005 to 2012, 124 articles mentioning the Lacq CCS project can be found. The news sample includes a dozen duplicates (generally not published on the same day), since the journal shares editorial content in its 21 local paper editions and its website. In comparison with other local or regional newspapers, SudOuest is the only French daily newspaper to have reported steadily and specifically about the Lacq CCS implementation. Figure 6 shows the time distribution of these articles. **06**



06: Sud Ouest quarterly number of articles relating to the Lacq CCS pilot.

The analysis that was conducted relied on encoding each article along two dimensions. The ‘incremental news value’ related to the formal stages of social and political decision-making process (project, stances, debates, decisions) was first assessed. These stages are not irreversible steps in a waterfall process - a deliberative process can iterate back and forth as needed. Then articles were distinguished according to their territorial circulation, with four types of editorial localization: (1) publishing only in the local editions for Lacq, Rouse and Pau, that is in “Béarn or Béarn & Soule local editions”; (2) in “other local editions”; (3) in newspaper pages common to all editions, that is in “general editions”; or yet (4) on the newspaper “website only” (not printed). Figure 7 shows the distribution of articles over time along these two dimensions. ⁰⁷

The project implementation had four crucial moments. These correspond to the local maxima in **figure 6** when the project was discussed relatively more in the press, and providing information relating to “upper” news value levels. They are:

- The concertation organized by Total in the final quarter of 2007.
- The positive vote of the local Lacq’s Cities Community Council (*Communauté de Communes de Lacq*) on 03 July 2008. A few days later, the city council of Jurançon voted a motion of distrust (despite being formally represented at the Lacq’s Cities Community Council).
- The official pilot inauguration in January 2010. Surprisingly the inauguration was treated as news of local interest, as opposed to the November concertation procedure, or the July 2008 votes, which had been reported in the

general editions. It was not only due to a reported turbulent local context, but also to the high R&D stakes of the event being seen as local rather than regional. Valérie Letard, the State Secretary for Green Technologies and Climate negotiations attending the inauguration, said: “before long, Lacq will be a recognized site all over the world and will undoubtedly gain followers...”²⁰ A first achievement came as Lacq CCS pilot stimulated the creation of “Avenia”, a specialized geosciences cluster Total belongs to. Avenia, is, sited in Pau and in mid 2010 was granted a governmental “National competitive cluster” label (“*Pôle national de compétitivité*”). This local success was published again as a highly important local news.

- Debates in 2011 about whether the injection permit, initially given for two years, should be extended remained an important local news item until the administration’s positive answer (depending on the DREAL) on 14 November 2011, again published in SudOuest general edition. The extension permitted injection up to 08 July 2013. It restricted the total quantity of CO₂ injected to 90,000 t in agreement with norms defined by the newly published European Directive on CCS research projects, which did not threaten the project’s technical or scientific integrity.

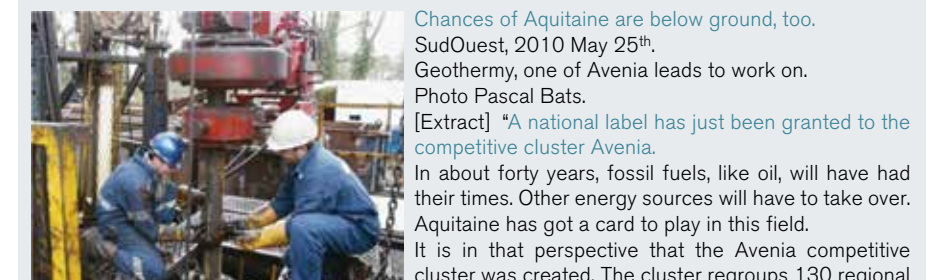
Overall, the chart shows that the project trended as a news topic in the regional press between 2007 and 2011. A public debate existed before and after the public inquiry period, as shown at the “stances and demonstrations” news value level. But a progressive shift in the press interest should be noted: while the debate about the post-production and the industrial future of the area remains active, the debate about the local consequences of the CCS project was sidelined progressively since mid 2010.

The National label “*pôle de compétitivité*” gained by Avenia in 2010, changed the nature of public debate to a focus on a new emerging economic development possibility for the Pau area, around geosciences, with both regional and national outreach.

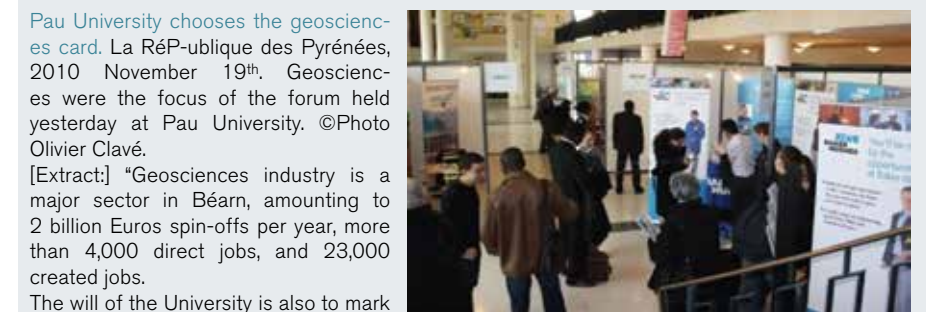
The upper “implementations and decisions” level of the chart shows successive critical events:

- Avenia being granted a national label was covered in a Béarn edition in 2010

- In 2012 a general edition covered Avenia launching Geoscopie²¹, a platform of strategic and economic intelligence relating to Geosciences (this grew out of a partnership with the Chambers of Commerce and Industry (CCI) of Pau, and Aquitaine at a regional level)



Chances of Aquitaine are below ground, too. SudOuest, 2010 May 25th. Geothermy, one of Avenia leads to work on. Photo Pascal Bats. [Extract] “A national label has just been granted to the competitive cluster Avenia. In about forty years, fossil fuels, like oil, will have had their times. Other energy sources will have to take over. Aquitaine has got a card to play in this field. It is in that perspective that the Avenia competitive cluster was created. The cluster regroups 130 regional firms, including giants like Total, but also research units, universities and professional training organizations. Activities that represent 6,000 direct jobs and 25,000 indirect jobs (...).”²²



Pau University chooses the geosciences card. La République des Pyrénées, 2010 November 19th. Geosciences were the focus of the forum held yesterday at Pau University. ©Photo Olivier Clavé. [Extract] “Geosciences industry is a major sector in Béarn, amounting to 2 billion Euros spin-offs per year, more than 4,000 direct jobs, and 23,000 created jobs. The will of the University is also to mark its specificity in the higher education field (...) In addition to Master students, ENSGTI and EISTI engineering schools had come and taken part in the event. “Geosciences are trans-disciplinary subjects. They gather physics, chemistry as well as mathematics”, emphasized Jacques Mercadier the ENSGTI Director (...).”²³

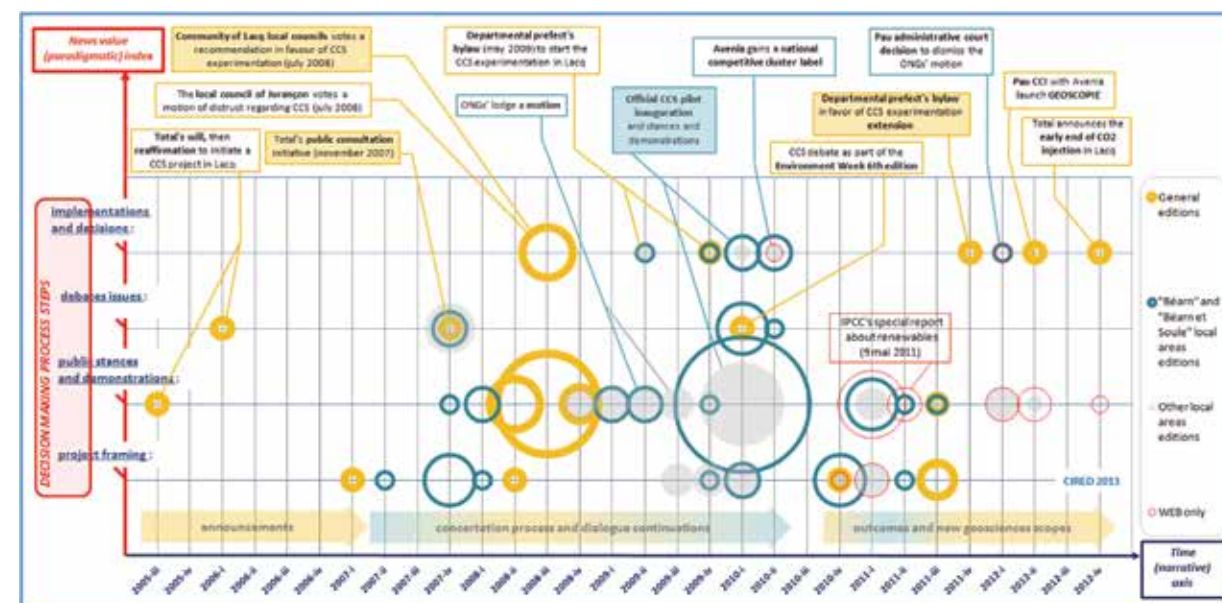
08: in Sud Ouest journal, 2010 May 25th, and La République des Pyrénées, 2010 November 19th (Extracts)

21. <http://www.pole-avenia.com/index.php/nos-services/geoscopie>
<http://www.geoscopie.fr/>

22. Authors’ translation from French : « Un label national vient d’être accordé au pôle de compétitivité Avenia. D’ici une quarantaine d’années, les énergies fossiles, comme le pétrole, auront vécu. D’autres énergies devront prendre le relais. L’Aquitaine a une carte à jouer dans ce domaine. C’est dans cette perspective qu’a été créé le pôle de compétitivité Avenia. Celui-ci regroupe 130 entreprises implantées dans la région, parmi lesquels des géants comme Total, mais aussi des unités de recherches, des universités et des organismes de formation professionnelle. Des activités qui représentent 6 000 emplois directs et 25 000 emplois indirects. (...) » in SudOuest, 2010 May 25th, « Les chances de l’Aquitaine sont aussi sous terre », J.J.N.

La géothermie, l’une des pistes de travail d’Avenia. Photo Pascal BATS

23. Authors’ translation from French : « (...) L’industrie des géosciences est un secteur majeur en Béarn, avec deux milliards de retombées économiques par an, plus de 4000 emplois directs, et 23 000 emplois induits. La volonté de l’université est aussi de marquer sa spécificité dans le milieu universitaire (...) Outre les étudiants en master, les écoles d’ingénieurs ENSGTI et EISTI étaient venus prendre part à l’événement. « Les géosciences sont des matières transdisciplinaires. Elles réunissent la physique, la chimie mais également les mathématiques », souligne Jacques Mercadier directeur de l’ENSGTI (...) » in La République des Pyrénées, 2010 November 19th, « L’université de Pau joue la carte des géosciences. » Les géosciences étaient au cœur du forum organisé hier à l’Université de Pau. © Photo Oliver Clavé.



06: Sud Ouest quarterly number of articles relating to the Lacq CCS pilot.

20. « D’ici quelque temps, Lacq sera un site reconnu dans le monde entier et fera sans doute école. » SudOuest, 2010 January 10th, « Le CO₂ dans le sous-sol : c’est parti ! »

From the Sud-Ouest journal, there was also a change towards addressing the readership's scientific, economical, social, industrial and political interests at a widened regional level. Such an epilogue fits well with the 2008 survey results about what local respondents cited as "interesting aspects" of the Lacq CCS Pilot Project: These are not only their reactions to a nonstandard project, but their expectations relating to its implementation – in other words the expectation that this Pilot Project could be demonstrating a future standard climate mitigation option.

However, a comprehensive analytical approach must differentiate between reconstituting a thread of press contents ex post, so retrospectively recognizing variations in press coverage during the period (Cf. figure XX), and follow-up press reporting as it appears immediately from the daily editorial practice, forward looking but still uncertain of the changing course of events. The value of news is associated with their new or updated information content, but what actually underpins their relevance to readers (newsworthiness) stems from a selection from among massive and proliferating flows of news that journalists must process before their daily editorial meeting. Journalists must anticipate the readership's concerns, and thus represent their political news value the same day, of which the reflexive²⁴ counterpart is the readership's willingness to pay for news. We may reasonably infer such a speculative use of readership's concerns is editorially to take charge of the current

24. Reflexivity refers to the importance of eliciting relevant facts prior envisioning what is considered to be consequences.

public debate reflexivity, so that we have to restate it discretely and sequentially (Cf. figure XX).

Insofar as the general "non free" daily press has the function of supporting this double upgrading of information (updating and current reflexivity) to address a maximum readership, such an upgrading tends to overlap the most prospective and sharable contents rising as (fairly typical in political sciences) "political generality" (that is not a consensus!). French regional press is historically closer to its territorial markets than the national press, and is jealously aware of its audiences special needs with a community dimension fostering a more intensive reflexivity and the rising of "political generalities".

The journal SudOuest characteristically reported news about the Lacq CCS pilot in a local dimension (CCS concertation, CLIS, interviews with stakeholders, Lacq basin industrial context, social and political implications). In a regional dimension it was more clearly focused on political elements, through territorial institutions hierarchical interplays (prefectural bylaws dependent on DREAL assessments).

However, it also reported news about:

- ↳ induced prospective issues (safety or environmental hazards, codes and laws),
- ↳ policy challenges (Climate change and carbon price, renewable energy, sustainable employment),
- ↳ stakeholders' strategies related to retroactions between scientific and technological research

and sustainable development or energy transition (technical or scientific expertise and meetings, ONG stances, Pau University, Total group and industrial clusters, elected representatives engagements and visions),

Thus the journal systematically placed regional strengths and advantages in a common context that is the basic community "generality". Through an editorial policy combining local and general editions to address a maximal audience, the regional journal SudOuest demonstrates an ability to discover and stimulate latent reflexive relays within the general public debate and get a sense of territorial capabilities of the general public within the region.

Faced with social acceptability issues arising in local debates, regional news outlets demonstrate responsiveness opportunities partially offsetting the limited "formal" participation²⁵ in local debates by widening the scope and redirecting most of the missing public attention towards the less focused regional stakes reflexivity. Conversely local stakes lacking generality at a local level may be framed within coherent dynamics and issues at a regional level. This was especially the case with regards to the CCS

25. The "formal participation" motivates mainly the stakeholders, and among them (or formally represented), the potential opponents of a specific project and people anxious to listen to the arguments put forward and feedbacks provided in response. All of them give support to the formal participation process itself for transparency, and in some cases wish to ensure the largest audience from media. It means a participation process may not get or provide the whole potential audience, even if publication is regulated (as for public inquiries).

Pilot shifting from the Lacq Pilot acceptability and project operating topics, which alternated between the Béarn local edition and the general edition of SudOuest (Cf. figure XX, until 2010), to a derived geosciences & CCS topic first in Béarn local edition only (Avenia, 2010), then finally in a general edition (Geoscopie, 2012); but the latter topic – simultaneously as a geosciences & deep geothermy topic, again involving Avenia based in Pau (Béarn) – alternated from 2010 between other than Béarn local editions and general editions (still addressing Béarn readership as well). In this way providing a second thread of news addressing local and general readerships with additional concerns, no more only the CCS, but geothermal power (graphically not represented in figure XX).

Since 2010, the political generality, sustaining the same development paradigm, has moved from CCS to geosciences at large. It should be noted that a geosciences supply existed earlier in Aquitaine, a region with numerous winegrowing and geothermal areas, also ready to welcome new developments and active centers (Cf. figure XX).

Nevertheless such a process – media upgrading of current reflexivity accompanied by a political generality rising – can only be achieved if a wide audience can be attracted. If so, a question then arises: does the media coverage impair or undermine the local public participation, or, does it enhance a local public debate by raising public awareness of the debated issues and adding to context by addressing a wider audience?

The initial concertation process already gave evidence that the public debate challenge is not at first quantitative, but one of qualitative dialogue and of legitimacy of issues and results: it is not a voting, but a multipath information process, the goal is to optimize a project without any information distortion, or unexpected significant issues. It is not surprising therefore that after the concertation and public inquiry there remained questions related to the project acceptability and needs for information raising from even the action implementation (Cf. figure XX). More broadly, figure XX highlights the public debate propensities at all territorial scales, and reflects a scalability having to be taken into account. In the Lacq CCS case, after the concertation and the public inquiry ending in 2008, the pilot implementation period and the three years following CO₂ injection provided this evolution and the corresponding rising generality with useful time, in a particular and complex initial context (Lacq after gas and employment issues, engineering schools and Pau University declining attractiveness, novelty and acceptability of an integrated CCS system pilot). Conversely, the widening public debate scope, gave the local public debate broader and more accurate perspective and context, thus stimulating reflexivity and enhancing local capabilities for the action acceptance.

Figure XX alternates well contrasting territorialized sequences from 2007 until 2010 with a clear editorial policy that demonstrates the local public debate was not eclipsed by a leading regional development generality, while the official pilot inauguration

under the auspices of the French State in January 2010 was clearly a turning point (Cf. figure XX). Then the successful completion of the CCS chain experimentation until March 2013 never undermined the need for a happy epilogue of the public CCS debate, and here it is the rewarding shift to the scope of a regional geosciences development for energy transition from a local and fertile anchorage.



8.6

DISCUSSION, LESSONS LEARNED AND CONCLUSIONS

In this case, Total demonstrated a strong will to engage in a concertation, allocating significant resources early on: hiring a consulting firm and allocating senior engineers time to answer questions arising from the process.

The concertation covered the whole territory, from the capture site in Lacq, where acceptability was likely from the start, to the storage site in Jurançon where acceptability was less certain. Social conditions were very favorable for the project. For two generations, the operator (Total) has been the major economic (and therefore political) power in the area, and has consistently demonstrated that it can successfully control high risks. The project offered direct and indirect support for local economic development, and a future use for a gas field facing depletion and the resulting decrease in economic activity. Furthermore, research on CCS is supported nationally and internationally by scientists and Governments. This international confidence in the technology helped to ensure the Lacq Project received its permit.

Still there are lessons to be learned. Total's position would have been stronger if its permit request had been audited by a different team, and if it had more specific long-term plans. Because concertation meetings were held before elections, the local officials could only take a non-committed stance. Using a Parisian con-

sulting firm to moderate the discussion, and employing hostesses to hand out the information packages was not appreciated by the people of Jurançon.

Total, following the advice of the President of the national commission on public debates, did not mass-mail the community with information on the project. Consequently, citizens came to the meetings to receive information, not to defend a stance in a debate. Another reason why the public participation in the discussion was low is that smaller formats might have been more interactive.

This case exposes the difficulty of modern governance. A balance between concertation, information and representation has to be found for each issue, depending on local ethics and customs as well as science and technology. As concluded by Ha-Duong and Chaabane eds. (2010), this balance can only be found pragmatically. Technology policy is progressive and interactive; it needs projects to go forward. The Lacq Project contributed to the regulation framework itself.

The CLIS worked well, but the formal public inquiry came a little late in the procedure and did not interest many citizens. Risk management studies were revised, and landscape integration in the environment was improved. Landscaping is the sensory interface with the community.

The process of consultation, which aims to be a process of open dialogue was strengthened and legitimized by the foundation of the residents' association CJE. The radicalization of CJE's position during the concertation process impacted the balance of the public discussions with the project holders at CLIS. Total had to adjust its position, and could not do this without an understanding of the values expressed by the public at meetings of the association.

It might have been presumed that since geological storage is a highly technical subject, there was some rationality in technocratic decision making, where executive powers are delegated to Elected Representatives and State's Engineers. Most citizens know very little about geosciences, and might err on the side of too much caution when asked about an R&D project, since research means that there is a knowledge gap somewhere. In this case, the argument needs discussion, since some neighbours were perfectly knowledgeable about the Rousse Reservoir, having worked at Total. We observed that the citizens tied to Total, retired or still active, exercised self-restraint in the public debates.

The case also highlights the issue of independence. As for many new technologies or drug assessments, CCS experts generally have an interest in the development of CCS. Local people in the administration, in the industry and even in the university or in the environmental associations mostly belong to interrelated social networks. Local political representatives are often reluctant to take sides on socially dividing matters, while Prefects as State Servants are in charge of communities and institutional procedures.

It is believed that, far from being a problem, strong communication links on the human or civil side is a strong asset for governance. Beyond sharing knowledge, a key to the successful co-construction of a social innovation is the widening and deepening of the real "social networks" behind it. In this case, providing information empowered the local community to act. Having concerned citizens asking pointed questions to experts, balances power and creates its own momentum. The fact that the concertation led the neighbours to create an association of opponents to tackle their own concerns probably improved the quality and the legitimacy of the CLIS debates.

ACKNOWLEDGEMENTS

This case study was funded by the CNRS and the Agence National de la Recherche, France, under project SOCECO2 ANR-06-CO2-009. Minh Ha-Duong was principal investigator on the project. Benoit de Guillebon was co-principal investigator for APESA. Michèle Gaultier contributed specially on the survey described in section 5, Gilles Mardon contributed specifically on the press analysis report in section 6. All authors contributed to writing and revising the manuscript.

“ Beyond the pilot’s scientific importance, we are also very interested in the acceptability process that Total has introduced. It is a key organizational innovation and easily replicable. Total has managed to involve local residents, elected representatives and citizens’ groups to make them active stakeholders in the project rather than feel it is being forced upon them.

No project can go forward today without going through this acceptability process.”

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