

D6.7: Policy Brief

with

Guidelines for Public Engagement and Recommendations

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2. Executive Summary

Carbon Capture and Storage (CCS) is widely recognised as essential for Europe’s pathway to carbon neutrality. However, its deployment depends not only on geological and technical feasibility but also on the willingness of communities to host storage infrastructure. The PilotSTRATEGY project (Horizon 2020, 2021–2026) addressed both aspects by assessing deep saline aquifers in five European regions while developing approaches for meaningful public engagement.

This policy brief presents key findings and recommendations from Work Package 6 on Social Acceptance and Public Participation. It draws on five years of engagement in the Lusitanian Basin (Portugal), the Ebro Basin (Spain), the Paris Basin (France), and exploratory work in Upper Silesia (Poland) and Western Macedonia (Greece). Activities included two waves of representative surveys with over 3,300 respondents, 56 stakeholder interviews, around 20 Regional Stakeholder Committee meetings involving about 300 stakeholders, and tailored citizen engagement activities in each region.

The brief provides recommendations for policymakers, project developers, and local authorities. Its central message is clear: technically sound CCS projects cannot succeed without social legitimacy, which requires sustained, transparent, and context-sensitive engagement.



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3. Aim of this document

This document outlines the participation and engagement activities undertaken in the PilotSTRATEGY project and synthesises the key findings and recommendations derived from them. It is designed as a practical resource to bridge technical and societal considerations in the development of geological CO₂ storage projects. Various stakeholders can use this document for different purposes.

- **Policy Makers**
 - Gain insights into defining effective frameworks for societal engagement on CCS at the European and national levels.
- **Local Authorities**
 - Understand region-specific challenges and opportunities to foster community acceptance and address local concerns in CCS project development.
- **Project Developers**
 - Explore tested approaches and strategies for engaging stakeholders and communities, both generally and within the specific PilotSTRATEGY regions.

4. Context and research design: PilotSTRATEGY's Approach to Public Engagement

The PilotSTRATEGY project, funded by the European Union's Horizon 2020 programme, has the aim to analyse the technical, economic, and social conditions of geological carbon dioxide storage in three European basins, the Lusitanian Basin (Portugal), the Ebro Basin (Spain), and the Paris Basin (France), and with a lower intensity in Upper Silesia (Poland) and Western Macedonia (Greece). These regions were selected based on their geological potential, stakeholder and research interest and diverse socioeconomic contexts, providing complementary insights across different settings in Southern and Eastern Europe.

Within this framework, a dedicated Work Package (WP6) on 'Social Acceptance and Public Participation' in PilotSTRATEGY played a pivotal role in bridging techno-economic assessment with the social realities of citizens and stakeholders of the territories studied. The underlying premise is that effective public engagement is not merely a procedural requirement but a constitutive element of responsible innovation in the energy transition. Public acceptance cannot be assumed or imposed; it possibly emerges through iterative dialogue, transparent information sharing, and genuine opportunities for communities to voice expectations and shape project design. Thus, the objectives were (1) to create spaces where the relevant communities can learn about CCS technologies and their role in mitigating climate change, (2) gain understanding of the technical studies carried out by this integrative European project, and (3) deliberate on their implications and impacts. On this basis, through direct interaction with researchers involved in the project, citizens and societal stakeholders were invited to give feedback and articulate the conditions under which they might consider CO₂ storage development to be acceptable in their context.

This final document now provides public engagement guidelines and recommendations (Task 6.6). It briefly summarises the activities implemented and derives conclusions for future pilot implementation – in the regions where PilotSTRATEGY was active (and beyond).

The overall approach of WP6 within the PilotSTRATEGY project (May 2021 to April 2026) aimed to comprehensively analyse and engage with societal contexts related to CO₂ storage across five study regions in five countries. The initial steps of this work in the first 18 months of the project lifetime (exploratory phase) focused on characterizing the broader policy framework and regional profiles through extensive document analyses, media reviews, stakeholder interviews, and surveys assessing public acceptance of CCS (Dütschke, Alsheimer, Bohn Bertoldo, et al., 2022). These efforts, summarised in earlier project deliverables (Duscha, 2022; Dütschke, Alsheimer, Bertoldo, et al., 2022), provided insights into regional settings, community perceptions, and societal dynamics. From November 2022 onwards, the focus shifted to active engagement through two main strategies (engagement phase): (1) establishing Regional Stakeholder Committees (RSCs) with regular meetings on region-specific topics (Preuß et al., 2026) and (2) implementing public engagement initiatives tailored to regional contexts and demographics (Dütschke et al., 2025; Oltra et al., 2023).

In parallel with the transdisciplinary activities conducted with individuals and groups outside the project consortium, engagement efforts also included internal initiatives. Within the consortium, an interdisciplinary dialogue was established to make the implicit expectations of project team members visible and to encourage the exchange of ideas and reflections. This process began with the collaboration on an internal project manifesto that outlined the team's shared understanding (for summary of the contents see box below). It continued primarily through dedicated sessions during consortium meetings, which were facilitated using group work, discussion questions, and other interactive methods.

The **manifesto** introduces the PilotSTRATEGY project and its purpose within the context of Europe's climate goals. It outlines the role of Carbon Capture and Storage (CCS) in supporting long-term emissions reduction and industrial sustainability. It acknowledges the need for accessible geological CO₂ storage capacity in the coming decades and presents PilotSTRATEGY as an EU-funded research initiative designed to inform future policy and decision-making. Furthermore, the manifesto describes the project's focus on assessing deep saline aquifers in five regions of Southern and Eastern Europe. It emphasises the project's interdisciplinary approach, combining geoscience, engineering, and social sciences. Its text highlights the importance of responsible research and innovation and ethical, transparent data use. It details the project's commitment to stakeholder and community engagement through dialogue and workshops. The manifesto positions societal involvement as essential to developing sustainable CCUS solutions. It concludes by noting that the project's publicly available results will support democratic implementation of CCUS pilots beyond 2026.

Figure 1 provides an overview of the logic and the steps implemented for societal engagement which form the basis for the following recommendations.

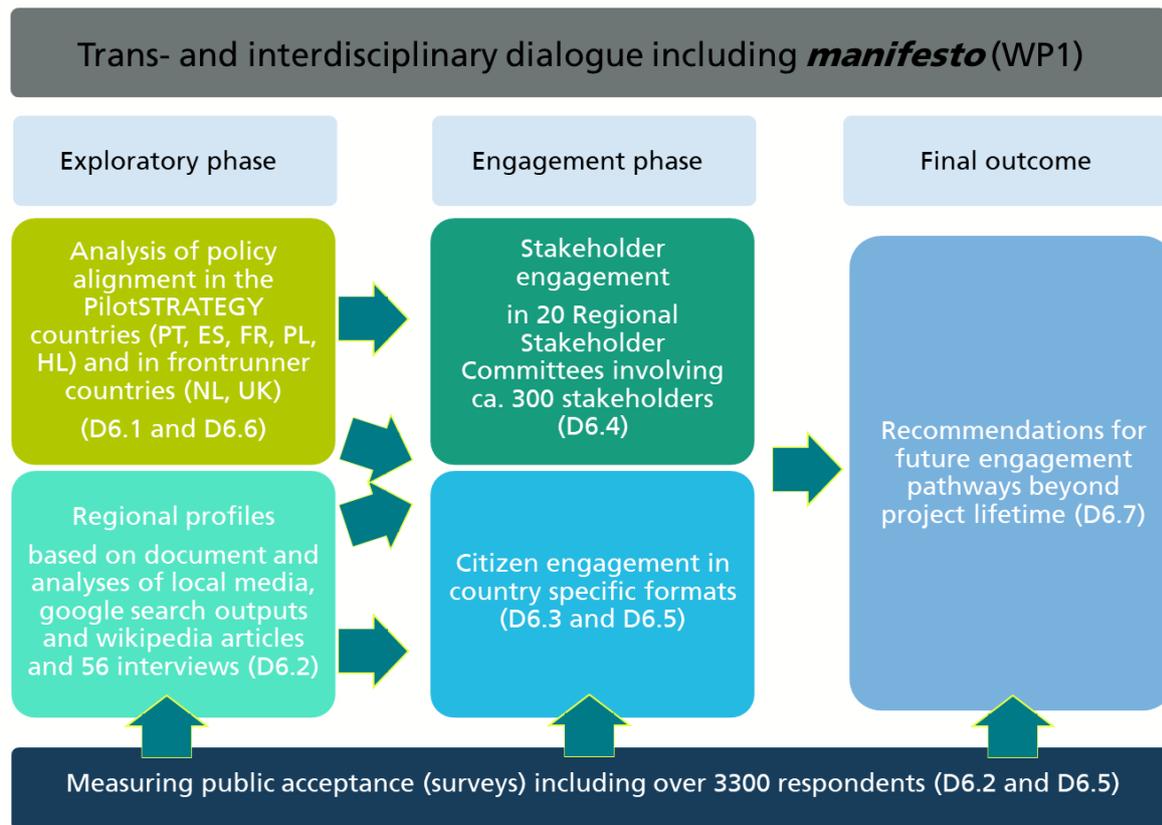


Figure 1 Engagement and participation process in PilotSTRATEGY. D+No refers to respective project deliverables.

5. Summary of Insights and General Recommendations

5.1 Learnings for Public Engagement on CO₂ storage

- **Leverage Exploration and Tailored Engagement Strategies:** The combined approach of regional exploration and customised engagement methodologies has proven effective in our experience. While these phases are not clearly separated, as exploration already implies some kind of engagement, explicitly taking the time to learn about the regions helped us to design the later phases flexibly and contributed to achieving an open approach.
- **Combine Different Methodologies:** During the exploration and engagement phases, various methodologies were employed, including media and document analyses, interviews, surveys and open and structured discussion formats. These produced a variety of insights that complemented and validated each other, and contributed to the development of a comprehensive approach.
- **Address Internal Dynamics Within Project Teams:** Research project teams consist of diverse disciplines, levels of experience, and interests, which can result in varying interpretations of shared goals. Explicitly reflecting on them supports a better collaboration within the project team, especially in communication and engagement with external actors.
- **Bridge Knowledge Gaps to Enable Meaningful Dialogue:** Awareness of CCS technology tends to be low across communities, which can limit constructive engagement. At the same time, community knowledge is often low within the project team. While exchanging information does not constitute meaningful engagement, knowledge-building opportunities for both sides enable to create a foundation for true dialogue, empowering communities and project developers to make informed decisions regarding CCS projects.
- **(Re)build Trust Through Credible Mechanisms:** Historical distrust from previous infrastructure projects often shapes current perceptions of CCS developments. Engaging in trust building activities and providing mechanisms that ensure the actual implementation or realisation of benefits is likely to be key for local participation processes and eventual acceptance.
- **Conditional Acceptance Criteria:** Communities and stakeholders tend to articulate conditional acceptance rather than binary accept/reject perspectives for CCS projects. Common conditions include safety assurances, tangible and verified benefits, transparency throughout the project lifecycle, and genuine participation in decision-making.
- **Allocate Resources to Sustained and Contextual Public Engagement:** Effective public engagement requires time, repetition, adaptation to local contexts, and adequate resources. It is never complete but a constantly ongoing process. This also includes established and reliable key actors driving the engagement process.
- **Balance Social and Technical Feasibility:** A technically viable CCS project cannot succeed without community support, and a willing community without geological suitability will also fail.

5.2 Recommendations

- **Policy Makers**
 - **Clarify the Role of CCS in Carbon Neutrality Agendas:** Policy makers should clearly set orientations in the national climate mitigation agendas about the role anticipated, if any, to the CCS technologies in hard-to-abate sectors.
 - **Establish Clear Regulatory Frameworks:** Develop comprehensive, transparent, and consistent regulations for CCS projects, ensuring safety, environmental protection, and public engagement requirements are explicitly addressed.
 - **Promote Public Awareness Campaigns:** Support national and regional awareness campaigns to share knowledge about CCS technologies and their potential role in achieving climate goals, addressing misconceptions and fostering informed dialogue.
 - **Provide Financial Incentives:** Offer subsidies, grants, or tax incentives to promote CCS development, ensuring projects are economically viable. Maintain public trust by implementing transparent funding mechanisms that ensure a fair distribution of burdens and benefits.
- **Project Developers**
 - **Incorporate Stakeholder Feedback and Allocate Resources to Engagement:** Engage communities and stakeholders early in the project lifecycle, incorporating their feedback into project design and demonstrating a commitment to genuine participation. Make sure that sufficient resources and capacity are available.
 - **Focus on Transparency and Trust:** Build trust by openly sharing project data, progress, and safety measures, and by establishing credible mechanisms to ensure the realisation of promised benefits.
 - **Adapt to Regional Contexts:** Tailor engagement strategies to the unique socioeconomic, cultural, and environmental contexts of each region, ensuring meaningful and sustained dialogue with local communities.
- **Local Authorities**
 - **Facilitate Community Engagement:** Act as a liaison between project developers and local communities, ensuring residents have access to information, forums for dialogue, and opportunities to participate in decision-making processes.
 - **Monitor Local Benefits:** Ensure that CCS projects deliver tangible benefits to the local population, such as job creation, infrastructure development, or environmental improvements.
 - **Address Local Concerns:** Identify and address specific regional concerns, such as safety, land use, or environmental impacts, through localised communication strategies and stakeholder consultations.

6. Region-Specific Insights

While the previous section summarised key insights on public engagement and participation from PilotSTRATEGY (across regions), the following sections highlight the specific challenges for the five regions and provide context-specific recommendations for policymakers, project developers and local administrators. Many aspects and topics are similar; however, they differ in nuances and emphasis depending on the specific dynamics of each region.

6.1 Portugal

<p>LUSITANIAN BASIN (Portugal)</p> <p>Regional guidance</p> <p><i>Synthesis of citizen and stakeholder engagement evidence and survey findings</i></p>	<p>Region: Centre</p> <p>Study Area: offshore Figueira da Foz</p> <p>Evidence: Citizen engagement (2023 & 2025), RSC meetings (2023–2025), and surveys (2022 & 2025)</p> <p>Context: Coastal town, with a commercial port and tourism</p>
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PilotSTRATEGY engagement in Portugal focused on the coastal town of Figueira da Foz, in the Centre region of Portugal. Its economic fabric combines a commercial port, industry (paper mills), tourism and fishing, all activities closely connected to the sea. Evidence here draws on citizen discussion groups and Regional Stakeholder Committee (RSC) meetings held between 2023 and 2025, alongside findings from two survey waves carried out in 2022 and 2025.

Successes

- Mobilising a wide variety of stakeholders at the national and local level (public authorities, government agencies, representatives from emitting industries, other involved companies, port authorities, fishermen associations, Environmental NGOs) for recurrent and valuable discussions about CCS implementation. Engagement in the RSC increased over time, with representatives from 18 organisations at the last meeting.
- Harnessing the support of the local municipal authority in facilitating these discussions by hosting face-to-face events, communicating with stakeholders, and reaching out to the wider public through the citizen engagement initiatives. It demonstrates the crucial importance of local authorities as go-betweens between promoters and local actors in future CCS projects.
- Merging scientific inputs from the research process with experiential knowledge of local actors of specific local conditions, and with contributions from public agencies, shedding light on complex regulatory issues for offshore CCS. Academic research strongly benefits from interactions with stakeholders and citizens with different forms of expertise, that go well beyond raising awareness or support to CCS.
- Clear communication of scientific information about CCS and giving ample opportunity for stakeholders and citizens to ask questions to experts, particularly in face-to-face events, enhances trust and increases the motivation for engagement with technical issues.

Challenges

- Low public awareness of CCS but technical explanations by PilotSTRATEGY team members were well received.
- Concerns over impacts on local activities, particularly tourism and fishing (and the cumulative impacts of offshore windfarms planned nearby), and transport over pipeline (densely populated areas, other infrastructures) are present.
- Acceptance is closely tied to expectations of environmental and economic benefits, as well as the perceived fairness of the decision-making process.
- Empirical knowledge of local sea conditions (wave height, strong winter storms) and port characteristics (depth, availability of space and docking slots) raises some feasibility challenges.
- Uncertainty regarding government regulation (is CCS legally permitted or not?) and support (funding) was mentioned.
- Preference for nature-based solutions over technological ones for climate change mitigation was observed among segments of the public and some environmental groups.
- Concern about negative reactions from the local population once this project moves beyond being a research project was raised.

Watchouts

- Cumulative impacts of large-scale offshore projects (windfarms, other renewable infrastructures, other economy of the sea activities)
- Policy reversals and lack of clarity can hinder willingness to proceed.
- One-off engagement and long gaps: continuity matters; show how inputs influence decisions and provide regular updates.

Priority actions

- **Policymakers/regulators**
 - Provide legal certainty and procedural clarity (permitting, land/rights, maritime regulations, monitoring, long-term responsibilities).
 - Set higher standards for public engagement and independent oversight (beyond one-off consultations).
- **Project developers/operators**
 - Demonstrate clearly the need for CCS for decarbonisation of hard-to-abate industrial sectors, and the willingness to invest in carbon capture.
 - Promote continuous and transparent dialogue with stakeholders and local residents.
 - Uphold all monitoring and environmental preservation standards.
- **Local and regional authorities**
 - Institutionalise transparency channels: routine public updates, locally accessible documentation and a stable contact point.

- Mediate between project developers/operators and local companies, port authorities, civil society organisations, researchers and residents to make sure local interests are served and concerns are heard.

Bottom line: communities are willing to accept new technologies contributing to the global effort of climate mitigation, but risks must be addressed and public and private interest demonstrated.

6.2 Spain

<p>EBRO BASIN (SPAIN)</p> <p>Regional guidance</p> <p><i>Synthesis of citizen and stakeholder engagement evidence and survey findings.</i></p>	<p>Region: Zaragoza (Belchite, Quinto)</p> <p>Study Area: onshore Lopín</p> <p>Evidence: Citizen engagement (2023 & 2025), RSC meetings (2023–2025), and surveys (2022 & 2025)</p> <p>Context: Rural, depopulating; low CCS familiarity</p>
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PilotSTRATEGY engagement in Spain focused on two small, depopulating rural municipalities (Belchite and Quinto, Zaragoza province) in the Ebro Basin, in a context of low prior familiarity with CCS and strong sensitivity to territorial fairness (“why here?”). Evidence here draws on citizen discussion groups and Regional Stakeholder Committee (RSC) meetings held between 2023 and 2025, alongside findings from two survey waves carried out in 2022 and 2025.

Successes

- Sustained citizen deliberation in a context of very low awareness. Citizens in the local communities in Spain had virtually no prior knowledge of CCS, yet the reconvened discussion group format allowed them to move from initial confusion to informed, substantive debate across sessions. Participants engaged in technical aspects of capture, transport and storage, and formulated specific conditions for acceptance rather than defaulting to opposition, showing that deliberative engagement can work even in low-awareness settings.
- A functioning multi-stakeholder platform. The Regional Stakeholder Committee brought together municipal authorities, local groups, technical experts and regional administration over two years of sustained dialogue. In a territory marked by institutional thinness and demographic decline, maintaining this kind of diverse, recurring forum was itself a significant achievement; creating a space where local concerns about territorial fairness could be voiced alongside technical and policy considerations.
- An evidence base connecting engagement, surveys and deliberation. The combination of two survey waves (2022 and 2025) with qualitative citizen and stakeholder engagement produced a rich, triangulated evidence base. This allowed the team to identify not only what citizens think about CCS but why, linking attitudes to underlying concerns about safety, governance and distributive justice.

Challenges

- Low awareness and complexity: sustained, accessible explanations are needed to understand the full chain (capture–transport–storage).
- Conditional acceptance and “why here?”: support of CCS depends on safety assurance, credible and fair governance, transparency and tangible local benefits.
- Safety and environmental protection concerns: leakage/aquifers, induced seismicity and long-term integrity are salient; Castor¹ is a frequent reference point.
- Differentiated trust: higher confidence in technical competence than in empathy/ honesty/ transparency; strong demand for verifiable claims over time.

Watchouts

- Framing traps (“CO₂ dump” / “nuclear waste”): address these early with credible messengers, clear safeguards and sustained transparency.
- Overpromising benefits erodes credibility; keep commitments verifiable, time-bound and accountable.
- One-off engagement and long gaps: continuity matters; show how inputs influence decisions and provide regular updates.

Priority actions

- **Policymakers/regulators**
 - Provide legal certainty and procedural clarity (permitting, land/rights, long-term responsibilities) and address host-community revenue sharing/compensation.
 - Set minimum standards for evidence-based engagement and independent oversight (beyond one-off consultations).
- **Project developers/operators**
 - Show, not just state, safety: clarify what is monitored, by whom, and actions if thresholds are exceeded; publish results in plain language and visuals.
 - Address capture, transport and storage together (including transport options, routes and mitigation).
 - Make benefits auditable: realistic jobs/skills, local procurement, municipal revenues, and milestones (guaranteed vs. aspirational).
- **Local and regional authorities**
 - Institutionalise transparency channels: routine public updates, locally accessible documentation and a stable contact point.
 - Co-design a fair benefit/compensation architecture and communicate distribution rules early to avoid fragmentation.

¹ The Castor Project was an offshore natural gas storage facility near Vinaròs, Spain, abandoned in 2013 after gas injection triggered numerous earthquakes. It is widely cited as a major case of induced seismicity and resulted in significant financial compensation to the operator.

Bottom line: acceptance is a negotiated, conditional pathway that depends on visible safety assurance, transparency and fair local benefits delivered through continuous engagement.

6.3 France

<p>GRANDPUITS (FRANCE)</p> <p>Regional guidance</p> <p><i>Synthesis of citizen and stakeholder engagement evidence and survey findings.</i></p>	<p>Region: Seine et Marne (Ile de France)</p> <p>Study area: onshore Grandpuits</p> <p>Evidence: Citizen engagement (2023 & 2025), RSC meetings (2023–2025), and surveys (2022 & 2025)</p> <p>Context: Mixed rural/industrial; oil extraction history; some familiarity with local geology.</p>
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The PilotSTRATEGY engagement approach in France was organically designed to fit the context of the 10x10km area selected in the Paris basin for 3D seismic data acquisition, with a focus on the Grandpuits municipality where a CO₂ emitter was located. The studied site is linked by an existing pipeline to the Havre industrial zone in the north of France, and thus could also contribute at an economically competitive rate to decarbonising a significant share of French industry through infrastructure reuse. The Grandpuits zone (approx. 22,000 inhabitants) has a diverse economic profile of farming and declining industry. Low prior awareness of CCS was balanced by local familiarity with subsurface activities, given a history of oil extraction. All categories of territorial actors (residents, farmers, road administration, municipalities) had to be approached to obtain right-of-way to perform the seismic data acquisition (placing geophones throughout the territory and sending vibrating trucks out on the roads). Evidence here draws on Open-doors meetings and Regional Stakeholder Committee (RSC) meetings (2023 – 2025), alongside findings from two survey waves carried out in 2022 and 2025.

Successes

- At the very first stage of field work, to prepare the acquisition of 3D seismic reflection data, the research was discussed in detail with local stakeholders. This early interaction established solid transdisciplinary cooperation, identifying unexpected issues and joint solutions.
- Researchers were strongly committed to responsiveness, designing public discussion forums where questions on project activities, the justification of CCS as a climate mitigation action, and also local industrial futures could be addressed in detail.
- The first survey wave revealed solid consensus that communities engaging in climate mitigation can feel proud, and that they must receive social recognition for their effort.
- Trust factors: willingness of elected officials to engage in information gathering and foster deliberative encounters between their residents and researchers; shared confidence in technical competence among local professionals and residents; the capacity of “outsiders” to acknowledge local heritage (e.g. protecting ceramic drains on farmlands during the seismic imaging campaign); field presence of interdisciplinary researchers over a relatively long period allowing repeated direct co-constructive interactions.

Challenges

- Low awareness and complexity: sustained, accessible explanations are needed to understand geological storage and to debate its meaning for the territory.
- Changes in real conditions: The area was selected for study in light of both geological factors (highly stable zone, significant cap rock) and the presence of a CO₂ emitter providing a rationale of maintaining local industry through decarbonisation. The focus was on direct injection of CO₂ captured by the onsite emitter; however, this factory underwent changes in ownership and production and no longer guaranteed the starting configuration that had enabled local openness to the research. Later, a commercial carbon storage start-up interest emerged in parallel. This could be viewed as success, demonstrating that a pilot if licensed could be economically viable. However, local debate was triggered on the compatibility of publicly funded research & innovation, and private for-profit enterprise.
- Safety and environmental protection concerns, rooted in local knowledge but also in exacerbated risk perception: questions arose of whether the presence of old oil wells could lead to leakage, of whether CO₂ injection into deep saline aquifers could pollute groundwater, and of whether deep geological storage could give rise to catastrophic release (resembling the 1986 limnic eruption at Lake Nyos, Cameroon). Repeated scientific inputs were disregarded.

Watchouts

- Framing traps (creation of a “CO₂ dump”; catastrophic potential à la Nyos, Cameroon): address early and repeatedly with credible messengers, clear safeguards and sustained transparency.
- Vulnerability of local elected officials to disinformation attacks during electoral campaigns: the research team suspended the final RSC meeting to limit Mayors’ exposure.
- Highly formal consultation: official national consultations in the public interest are highly technical and do not provide sufficient opportunities for local interests and concerns to be expressed, deliberated and taken into account.
- Incomplete vision of benefits: although a research project does not negotiate eventual incentives or compensations, communities are interested in this feature and need to know about existing practices and how to prepare for negotiations in the case of implementation.

Priority actions

- **Policymakers/regulators**
 - Provide legal certainty and procedural clarity (permitting, land/rights, long-term responsibilities) and address host-community revenue sharing/compensation.
 - Support local context-based public/private initiatives in addition to the development of a national strategy aimed at supporting the French CCS sector.
 - Take note of national experience with subsurface projects, which have benefitted from a national strategy empowering representative local actors.

- **Project developers/operators**
 - Develop plain-language and visual presentation of CCS risks, management and monitoring at each phase, from geology to industrial reliability and maintenance. Consider local concern for health and environment (involving health professionals) as well as other operational situations.
 - Address capture, transport and storage together (including transport options, routes and mitigation) while adapting to context (e.g. when local emitter doesn't require transportation).
 - Make benefits auditable: realistic jobs/skills, local procurement, municipal revenues, and milestones (guaranteed vs. aspirational).
- **Local and regional authorities**
 - Institutionalise transparency channels: routine public updates, locally accessible documentation and a stable contact point. Support local projects e.g. through communication with local medias.
 - Participate in the project governance, co-design a fair benefit/compensation architecture and monitor local conflicts of interest.
- **Overarching**
 - Don't foretell failure. At the start of PilotSTRATEGY, some observers predicted hand-to-hand conflict in the study zone; at the end of the project, disinformation attacks influenced the posture of officials seeking re-election. But the data has been collected, modelling and risk analysis as well as group information and debate have provided quality knowledge. This systematic knowledge and skill building will support future decisions and contribute to France's development of climate mitigation technology. After elections, new local positions may emerge.
 - Don't wait for a perfect context. Clear advocacy from national actors is needed and a formal public debate on CCS could be useful. In the meantime, while continuing to engage in CCS research and implementation at local scale, stakeholders (government, research, industry, citizenry) must all meet, deliberate, and produce knowledge—without waiting, because there will never be a better time to do so. All technological infrastructure projects possibly encounter opposition, and all require multi-year elaboration to identify and fulfil socio-technical requirements and become shared endeavours.
 - Transparency at all levels. All players should communicate widely about CCS to make the subject and its challenges familiar (if not thoroughly understood), opening up to as many people as possible, so that citizens become de facto part of the CCS sector in France.

Bottom line: Carbon capture and storage are complex sociotechnical endeavours that require crossing many borders between stakeholders, disciplines, roles, responsibilities and understandings. The more opportunities to clarify CCS, its justification, its impacts, and the diverse benefits it should bring to the local and the national community, the better. The discussion and eventually, negotiations should take place over sufficient time in a clear framework with national support.

6.4 Insights for Upper Silesia (Poland) and Western Macedonia (Greece)

Poland: Upper Silesia (onshore)

Challenges

- Still restrictive regulatory environment and lack of a clear legal framework for CCS development
- Limited buy-in from local policymakers and weak societal anchoring of CCS technology
- Concerns about CCS economic feasibility and long-term liability after site closure

Recommendations

- **Policymakers**
 - Update CCS regulations to remove barriers to enable pilot and commercial-scale projects. Provide financial incentives and regulatory support for CCS development.
- **Project Developers**
 - Conduct detailed geological studies and risk assessments to confirm storage suitability. Engage technical professionals and local authorities early to build trust and credibility.
- **Local Authorities**
 - Advocate for equitable benefit-sharing mechanisms to ensure local communities gain from CCS projects. Coordinate public awareness campaigns and provide reliable information. Foster engagement to negotiate socially legitimate pathways

Greece: Western Macedonia (onshore)

Challenges

- Concerns about geological suitability, risks, and lack of public trust in CCS as a transitional solution for decarbonisation
- Regulatory framework for CCS development in Greece with room for enhancement
- Resistance stemming from historical reliance on lignite and fears of lost employment opportunities

Recommendations

- **Policymakers**
 - Establish a robust legal framework for CCS development and ensure alignment with energy transition strategies. Address community concerns through transparent communication and public forums.
- **Project Developers**
 - Design targeted engagement initiatives to address local skepticism and foster trust. Provide practical case studies of CCS projects from other countries to demonstrate feasibility and benefits.
- **Local Authorities**
 - Advocate for regional CCS development as part of a broader energy transition strategy. Facilitate outreach efforts and provide platforms for community dialogue.

7. References

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