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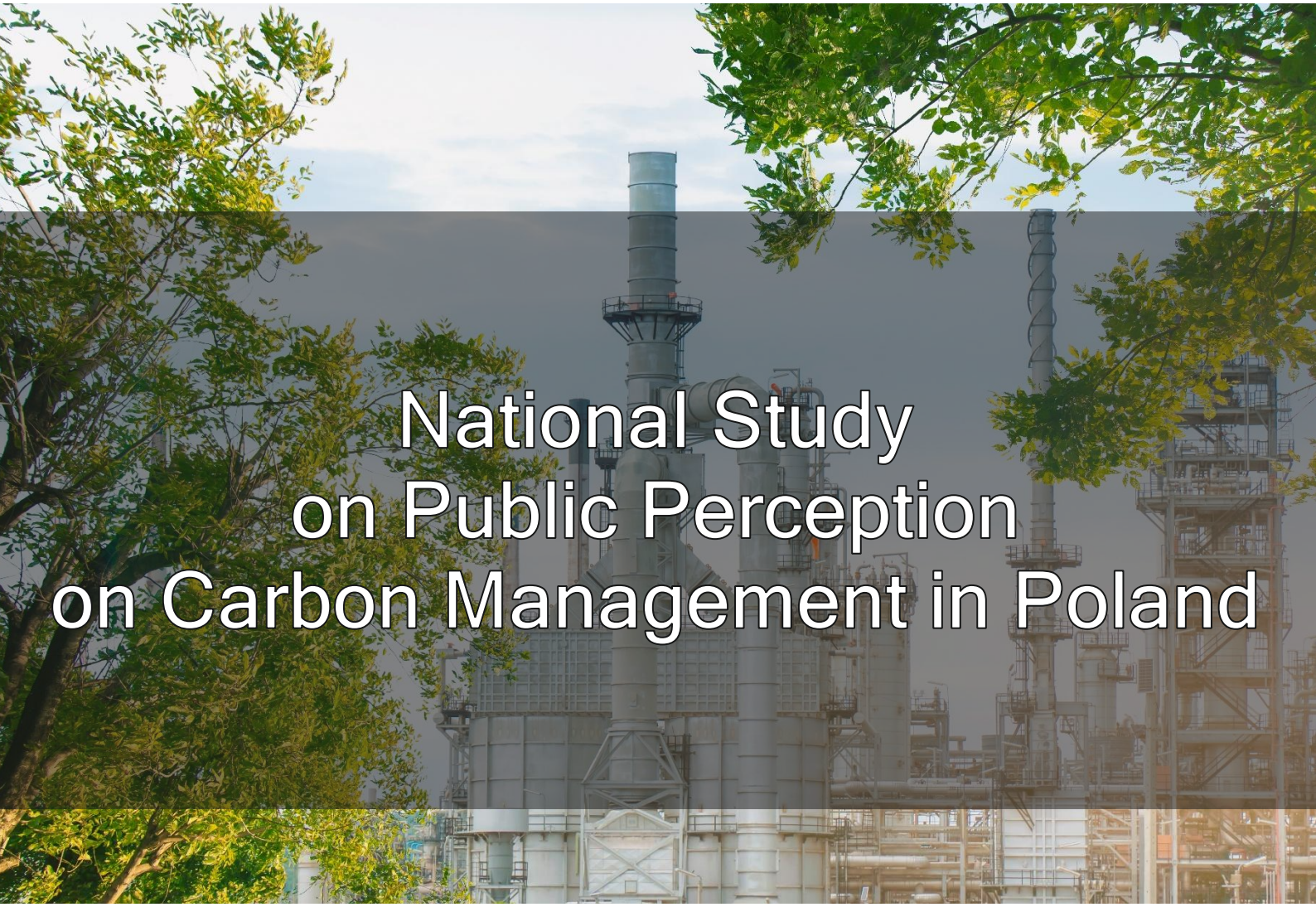

National Study on Public Perception on Carbon Management in Poland

February 2026

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Contents

List of abbreviations

CM	Carbon Management
CCS	Carbon Capture and Storage
CCU	Carbon Capture and Utilization
DAC	Direct Air Capture
IAE	International Energy Agency
NECP	National Energy and Climate Plan

1. Executive Summary

This report presents the latest snapshot of public awareness and social acceptance of carbon management (CM) technologies in Poland, combining quantitative survey data with qualitative insights from focus groups and industry interviews. Overall, a majority of respondents recognise climate change as a serious issue, yet a large share report limited knowledge about CM: two thirds say they do not know what to expect from CM deployment, while a smaller proportion claim substantive familiarity. The survey shows clear public preference for carbon utilisation (CCU) and for products made with captured CO_2, whereas direct air capture (DAC) and large-scale geological storage (CCS) evoke more mixed reactions. Notably, declared familiarity with the general term “carbon management” appears higher than with the more technical label “carbon capture and storage,” suggesting potential confusion driven by terminology rather than deeper understanding.

Qualitative work with young people revealed unexpected ambivalence and scepticism. Focus groups with students and school-age participants showed that younger cohorts more often express indifference or uncertainty about CM, even as some are engaged in sustainability activities. Their concerns centred on greenwashing, the risk that capture technologies would prolong fossil-fuel use, the high costs of CM, and safety issues related to underground storage. These attitudes were reinforced by distrust of authorities and investors and by a demand that information be delivered by independent, non-investor-affiliated sources. Participants repeatedly emphasised the value of seeing functioning pilot projects and of clear, visual explanations of how capture and storage work.

Interviews with industry representatives from the lime and cement sectors painted a pragmatic picture: CCS is viewed as essential to close the gap left by process emissions and to enable deep decarbonisation, while CCU is seen as promising but constrained by demand and purity standards. DAC was judged largely impractical at scale today because of its high energy requirements and costs. Industry interlocutors identified two principal barriers to deployment: legislative and financial. They pointed to gaps in Polish regulation (notably the absence of clear siting rules and delays in updating mining and geological law), the lack of demand-pull instruments and carbon contracts for difference, and insufficient transport and storage infrastructure. High capital costs and uncertainty over EU ETS prices further deter investment.

Regional patterns in the survey suggest that local context and recent announcements matter. Some voivodeships showed unexpectedly high acceptance—most strikingly Świętokrzyskie, where a recent announcement of a DAC project in Kielce likely amplified local support. This “novelty effect” implies that visible pilot projects and early demonstrations can materially increase local acceptance and understanding, reinforcing the value of demonstrators as part of a broader engagement strategy.

From these findings follow practical implications for policymakers, industry and communicators. First, public outreach must be independent, transparent and visually oriented, addressing landscape, safety and economic concerns while explaining the role of CM within a broader decarbonisation pathway. Second, policy action is urgent: clear siting

regulations, support instruments for demand and investment (including CCfDs), and decisions on transport and storage infrastructure are prerequisites for unlocking private investment. Third, local benefits should be explicit and tangible—direct payments, job retention, preferential access to low-carbon fuels or infrastructure investments can help build local buy-in. Finally, pilot projects and demonstrators should be prioritised and accompanied by targeted education and stakeholder dialogue to convert abstract concepts into observable, trust-building realities.

In sum, CM technologies have a credible role in Poland's decarbonisation mix, particularly for hard-to-abate industrial emissions, but their social licence will depend on faster, clearer policy action, independent communication, demonstrable local benefits and carefully designed engagement with communities—especially younger cohorts whose attitudes are currently ambivalent yet pivotal for long-term acceptance.

2. Contextual Understanding

2.1. Climate change and CM role in climate policy

Climate disruption is an existential threat to life on Earth and to humanity itself, requiring urgent and coordinated international action. Global efforts to slow climate change began with the Earth Summit in Rio de Janeiro in 1992, followed by the adoption of the UN Framework Convention on Climate Change and the Kyoto Protocol, which set binding emission reduction targets. The most significant milestone to date is the Paris Agreement of 2015, in which countries committed to limiting the rise in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to restrict the increase to 1.5°C. Achieving these ambitious goals demands deep reductions in greenhouse gas emissions across all sectors, particularly energy, industry, and transport.

Carbon Management technologies, including Carbon Capture, Utilisation and Storage (CCUS), are expected to play a crucial role in this process. The Intergovernmental Panel on Climate Change has identified CCUS as an important tool for reducing emissions in hard-to-abate sectors such as cement and chemicals. The International Energy Agency (IEA) has stated that reaching net zero emissions will not be possible without CCUS, which remains the only realistic option for reducing emissions in certain industries. These technologies also provide the only currently available pathway to achieving negative emissions after 2050, through approaches such as Direct Air Capture (DAC). Other measures, such as afforestation, can complement these efforts, but CCUS offers scalable industrial solutions that are indispensable for long-term climate neutrality.

In the IEA's Net Zero Emissions by 2050 scenario, the capture of 1,286 $MtCO_2$ annually is required by 2030, a figure equal to nearly half of the European Union's total annual emissions in 2021, which stood at approximately 2,725 $MtCO_2$. Even with all currently announced projects, this level of capture will not be achieved without accelerated

investment in CCUS infrastructure. According to the Sustainable Development Scenario, CCUS could account for around 15% of cumulative emission reductions in the energy system by 2070. This would require widespread deployment across industrial production facilities worldwide, including cement, steel, chemicals, and bioenergy, with CCUS integrated into large-scale manufacturing and fuel production systems.

The role of CCUS varies across sectors. In cement production, CCUS could deliver up to 61% of required emission reductions by 2070, while in steel and chemicals the contribution is estimated at 31% and 33% respectively. Captured CO_2 can also support decarbonisation in other areas, such as aviation, where synthetic fuels produced from CO_2 and low-emission hydrogen could replace conventional jet fuels. The IEA projects that by 2070 nearly half of global kerosene demand could be met by synthetic fuels, which would also account for around 10% of the overall fuel market. Hydrogen production is another area where CCUS is expected to remain central, with captured CO_2 enabling cost-effective low-emission hydrogen that could still represent about 40% of global hydrogen supply in 2070.

The importance of CCUS has been recognised at the European level. In 2023, the European Commission published the Industrial Carbon Management Strategy, setting ambitious targets including the capacity to inject 50 million tonnes of CO_2 annually by 2030. This strategy is supported by new legislation such as the Net Zero Industry Act, which requires member states to streamline permitting processes and obliges selected stakeholders to contribute to achieving these targets. These measures aim to create a coherent framework for the development of carbon management infrastructure and ensure that CCUS becomes a cornerstone of Europe's climate neutrality pathway.

The CCUS.pl project report (Giers, M., Rubaszek, M., 2024) shows that Poland has significant geological potential for CO_2 storage, and modelling results indicate that deploying CCUS could reshape the country's energy mix while delivering measurable economic benefits.The modelling carried out in the CCUS.pl project highlights that Poland possesses substantial storage capacity in saline aquifers and depleted hydrocarbon fields, which could accommodate large volumes of captured CO_2 over the coming decades. This geological potential provides a foundation for domestic carbon management, reducing reliance on exporting emissions for storage abroad. The availability of storage sites in regions with industrial activity also creates opportunities to locate facilities close to major emitters, lowering transport costs and strengthening the feasibility of CCUS deployment.

In terms of the energy mix, the modelling suggests that CCUS integration would allow Poland to maintain industrial production while meeting EU climate targets. By enabling emission reductions in hard-to-abate sectors such as cement, steel, and chemicals, CCUS supports the diversification of Poland's energy system and complements the expansion of renewables. The results show that without CCUS, Poland would face higher costs and more limited options for decarbonisation, while with CCUS, the transition can be smoother and more balanced, preserving energy security and industrial competitiveness.

The economic modelling indicates that CCUS deployment could generate positive macroeconomic effects, including reduced costs of emission allowances, improved competitiveness of Polish industry, and new opportunities for investment and employment. By lowering the burden of climate policy compliance, CCUS helps protect jobs in emission-

intensive sectors and creates new ones in infrastructure development, engineering, and research. The report concludes that while CCUS requires upfront investment and careful governance, its long-term benefits for Poland's economy and energy system outweigh the risks, making it a strategic option for achieving climate neutrality.

2.2. Importance of CM perception studies

Public perception refers to the opinions and beliefs surrounding Carbon Management (CM) technologies and is closely tied to the concept of social acceptance. The European Commission defined industrial CM as a "range of technologies to capture, store, transport and use CO2 (carbon dioxide) emissions from industrial and energy production facilities, as well as to remove CO2 from the atmosphere", when adopting the industrial carbon management strategy (COM/2024/62; European Commission). The focus is on three technological pathways: capture of CO2 for permanent, geological storage (CCS), the capture of CO2 for utilisation, as a substitute of fossil-based carbon (CCU), and the removal of CO2 from the atmosphere (DAC) for permanent storage. Acceptance is commonly defined as the positive response—whether in attitudes, intentions, behaviours, or usage-towards a technology or system by a specific group of people, such as at the national or regional level (Upham et al., 2015). Technology acceptance manifests through both behaviours and attitudes (Dütschke & Duscha, 2022): behaviours are observable actions such as decision-making, adoption, implementation, or usage, while attitudes encompass emotional responses, such as feelings about the technology, and cognitive responses, such as evaluations of its merits or risks. Acceptance operates simultaneously at the collective and individual levels, which interact with one another. As a result, a shared perception of CM at the national or regional scale can be shaped by the views expressed by influential members of that group. It is therefore important to assess both the broader public's perception and the perspectives of key stakeholders within CM technology systems.

Earlier studies highlighted scepticism towards certain aspects of CM, particularly CO_2 storage (Oltra et al., 2012), whereas more recent research suggests that public perception in European countries is neutral or slightly positive (e.g. France and Spain, Oltra et al., 2022; UK, Perdan et al., 2017). Shifts in perception occur within a broader context shaped by political and geographical conditions, the specific technology under investigation, the effectiveness of communication and participation activities, and the existing baseline of acceptance.

Low social acceptance, however, poses significant risks for infrastructural projects, as resistance from local communities can delay, reshape, or even halt investments. A notable example is the CCS demonstration project at the Bełchatów power plant in Poland. The project was ultimately abandoned following strong local protests and opposition, with residents voicing concerns about safety and environmental impacts. This case illustrates how insufficient public trust can undermine even well-prepared projects, leading to wasted resources and missed opportunities for climate mitigation. It underscores the importance of building a "social licence to operate" through transparent communication, early stakeholder engagement, and fair distribution of benefits, without which Carbon Management projects may struggle to move from planning to implementation.

2.3. Previous CM perception studies

The issue of public acceptance of Carbon Management technologies in Poland has been only partially explored. Over the past twelve or so years, numerous national and regional surveys have investigated awareness and acceptance of carbon capture and storage (CCS), while the topics of CO_2 utilisation and direct air capture (DAC) remain virtually unexamined in this context. Consequently, the survey carried out under the EUKI GreenHorizon project will, to the authors' best knowledge, be the first of its kind in Poland. The outline of public awareness and acceptance presented here is therefore based primarily on CCS studies conducted between 2011 and 2024 (Giers M., 2024).

A comprehensive overview of research in this area was prepared within the CCUS.pl project and published in the 2024 report Social Acceptance of CCS in Poland. That review covered ten studies but did not include the most recent autumn 2024 survey conducted by the Polish-Norwegian CCS Network. One of the key conclusions from these studies is the consistently low level of public awareness. In the 2011 Eurobarometer survey, 77% of respondents reported they had not heard of CCS technologies, while a further 11% said they had heard of them but did not know what they were. In comparison, in spring 2024 similar responses came from 65% of respondents, and in autumn 2024 from 70%. Moreover, more than 40% of those who claimed familiarity with CCS could not spontaneously name any application. This suggests that actual awareness of CCS in Poland may be no higher than 19%. Public awareness has therefore changed little over the period studied and remains low, creating multiple risks, particularly exposure to misinformation and fake news.

A clear divergence exists between acceptance of CO_2 capture at a nearby industrial plant or power station and acceptance of underground storage close to one's home. While 65% of respondents expressed support for CO_2 capture (with 32% opposed), opposition to underground sequestration (23%) outweighed support (12%), with most respondents undecided. High support for capture may reflect a mistaken local expectation that CCS will improve air quality, which was a dominant perception in the Eurobarometer study. This split in support across different parts of the value chain risks a "break" in the chain: CO_2 might be captured domestically but, due to social resistance to local storage, exported for sequestration abroad, for example to Norwegian North Sea sites.

One positive aspect is the regional distribution of support for underground sequestration. A NUTS-2 level study found higher acceptance in regions with a historical presence of coal or hydrocarbon extraction and industrial activity. These are also the regions where storage could be located, allowing facilities to be sited closer to emitters. However, the lowest national level of support was recorded in the West Pomeranian Voivodeship, where promising saline reservoirs are located that could host CO_2 storage after 2045, potentially replacing depleted hydrocarbon fields.

Another important finding is the general reluctance of respondents—especially those initially negative about underground storage—to change their views even when presented with objective information about CCS. In the 2011 NearCO2 study, after showing an

informational board only 13% of respondents shifted to a positive view, while 34% became more negative. In the CCUS.pl project's survey, among those initially opposed, the share willing to change their stance after reading information addressing their main concern ranged from 0% (for those fearing expropriation) to a maximum of 24% (for those worried about landscape impact). The Polish-Norwegian CCS Network's 2024 study included a limited media campaign with before-and-after measurement: although awareness of CCS increased, the share able to identify CCS applications fell from 53.4% before the campaign to 40% after it. These findings show that CM information competes with many other topics for public attention, so recognition of CM does not necessarily lead to deeper understanding.

It is crucial to distinguish public knowledge from social acceptance: communication should prioritise balanced information on opportunities and risks rather than attempting to convey complex technical details. Surveys reveal clear preferences regarding trusted sources of information. The 2022 PilotStrategy study found the highest trust in scientists, followed by NGOs and local authorities, while trust in the state and industry was lowest. Polish respondents also expressed lower trust in nearly all institutions compared with respondents in Spain, Portugal, Greece, and France. In the PilotStrategy survey, 26% believed the CCS rollout in Poland would be unfair and a further 36% thought it would be moderately unfair, meaning that more than half of respondents doubted the fairness of CCS implementation. Such a low level of social capital presents a significant challenge for Carbon Management projects.

3. Methods

3.1. Public opinion survey

The public opinion survey on CM in Poland took place between 25 September and 1 October 2025 and was conducted by SW Research using the CAWI method on a representative sample of 1,207 Polish residents. The questionnaire was proposed by the GreenHorizon project partner – the Fraunhofer ISI institute – and then consulted with the other partners. WiseEuropa translated the questionnaire into Polish and refined the details of the Polish-language version together with the SW Research agency. Below is the questionnaire that respondents answered. The questions in bold were mandatory for all project partners and were presented to respondents in the same form in Poland, Romania, Bulgaria, and Latvia, making it possible to compare results across these countries. The remaining questions were optional; however, in the case of the public opinion survey in Poland, all of them were included. The table below outlines questions in Polish in the very same form they were presented to the respondents.

Kategoria	Pytanie	Odpowiedzi
Płeć	Proszę wskazać swoją płeć.	• Mężczyzna • Kobieta • Żadna ze wskazanych • Nie chcę odpowiadać

Kategoria	Pytanie	Odpowiedzi
Wiek	Proszę wskazać swój wiek	• 18-29 • 30-39 • 40-49 • 50-59 • 60+
Wykształcenie	Proszę wskazać swoje wykształcenie	• Podstawowe • Gimnazjalne • Średnie ogólnokształcące • Średnie zawodowe • Wyższe
Zawód	Aktualnie jestem…	• uczniem/uczennicą/studentem/studentką • osobą zatrudnioną (w pełnym lub niepełnym wymiarze godzin) • samozatrudniony/a • emerytem / emerytką • niepracującym/niepracującą (np. gospodarz domowy lub gospodyni domowa) • żadna z powyższych odpowiedzi
Dochody	Jak opisałby/opisałaby Pan/Pani swoją sytuację finansową?	• Moje dochody nie starczają mi na życie • Mam trudności z obecnym poziomem dochodów • Radzę sobie z obecnymi dochodami • Żyję komfortowo z obecnymi dochodami • Żyję bardzo komfortowo z obecnymi dochodami • Nie chcę odpowiadać
Związek z miejscem zamieszkania	W jakim stopniu zgadasz się z poniższymi stwierdzeniami? • Jestem bardzo związany/związana z miejscem zamieszkania.	• Zdecydowanie się nie zgadzam • Nie zgadzam się • Raczej się zgadzam • Zdecydowanie się zgadzam • Trudno powiedzieć

Kategoria	Pytanie	Odpowiedzi
	• Jestem bardzo związany/związana z przyrodą miejsca zamieszkania. • Jestem bardzo związany/związana z kulturowym dziedzictwem miejsca zamieszkania.	
Relacja ankietowanych z emitentami	Czy Pan/Pani lub ktokolwiek z rodziny pracują w elektrowni, cementowni, hucie stali, fabryce papieru lub zakładzie chemicznym?	• Tak, pracuję w jednym ze wskazanych obszarów • Tak, ktoś z moich bliskich pracuje lub pracował w jednym ze wskazanych obszarów. • Nie • Nie wiem
Zaangażowanie ankietowanych	Czy jest Pan/Pani aktywnie zaangażowany/zaangażowana w obszarze ochrony środowiska lub zrównoważonego rozwoju?	• Tak, pracuję zawodowo w jednym ze wskazanych obszarów • Tak, udzielam się wolontaryjnie w czasie wolnym w jednym z tych obszarów. • Tak, wspieram finansowo organizacje działające w tym obszarze • Nie
Postrzeganie zmian klimatu	W Pana/Pani opinii zmiany klimatu…	• Nie są problemem • Są małym problemem • Są umiarkowanym problemem • Są poważnym problemem • Są bardzo poważnym problemem • Nie wiem
Świadomość	Czy kiedykolwiek słyszał/słyszała Pan/Pani o technologiach zarządzania emisjami dwutlenku węgla (ang. Carbon Management, CM)? Obejmują one wychwyt i	• Nie, nigdy o nich nie słyszałem/słyszałam. • Tak, ale do końca nie wiem czym są.

Kategoria	Pytanie	Odpowiedzi
	składowanie dwutlenku węgla (CCS), wychwyt i wykorzystanie dwutlenku węgla (CCU) oraz bezpośredni wychwyt dwutlenku węgla z atmosfery (DAC).	• Tak, słyszałem/słyszałam I wiem czym są.
Zainteresowanie CM	Niezależnie od stanu Pana/Pani stanu wiedzy, czy chciałby Pan/Pani poszerzyć swoją wiedzę na temat technologii zarządzania emisjami dwutlenku węgla?	• Nie • Tak • Nie wiem
Plansza informacyjna	Technologie zarządzania emisjami dwutlenku węgla (ang. Carbon Management, CM) Aby stawić czoła zmianie klimatu, rządy i biznes promują różne opcje walki z nimi, takie jak odnawialne źródła energii (słoneczna i wiatrowa), modernizacja budynków w celu zwiększenia ich efektywności energetycznej lub ponowne zalesianie. Spośród opcji przeciwdziałania zmianom klimatu chcielibyśmy przedstawić Państwu zestaw technologii mających na celu redukcję emisji CO2 (odpowiedzialnej za zmianę klimatu) z istniejących zakładów przemysłowych i energetycznych oraz z atmosfery, które są omawiane pod ogólnym terminem zarządzania emisjami dwutlenku węgla (CM): wychwytywanie i składowanie dwutlenku węgla (CCS), wychwytywanie i wykorzystanie dwutlenku węgla (CCU) oraz usuwanie dwutlenku węgla z atmosfery.	Wyświetlanie planszy informacyjnej

Kategoria	Pytanie	Odpowiedzi
	Podstawowym założeniem jest wychwytywanie CO2 ze źródła (zakładu przemysłowego lub elektrowni) lub z atmosfery, a następnie... ... trwałe składowanie pod ziemią (wychwytywanie i składowanie dwutlenku węgla = CCS) lub ... przekształcenie w produkt zawierający węgiel (wychwytywanie i wykorzystanie dwutlenku węgla = CCU), taki jak chemikalia lub ... alternatywnie, CO2 może być wychwytywany bezpośrednio z atmosfery, choć jest to proces droższy od pozostałych. Proces ten jest znany jako Direct Air Capture lub Carbon Removal. Wychwycony CO2 może być następnie składowany pod ziemią lub wykorzystany.	
Ocena ogólna	Jak ocenia Pan/Pani technologie CM jako narzędzie walki ze zmianami klimatu?	0 Bardzo źle 1 2 3 4 5 Neutralnie 6 7 8 9 10Bardzo dobrze
Uczciwość procesu wdrożenia	Proszę wyobrazić sobie, że technologie CM zostają wdrożone w Polsce... Czy uważa Pan/Pani, że koszty i zyski związane z rozwojem tych technologii będą sprawiedliwie	• Zdecydowanie się nie zgadzam • Nie zgadzam się • Raczej zgadzam się • Zdecydowanie się zgadzam • Trudno powiedzieć

Kategoria	Pytanie	Odpowiedzi
	rozłożone pomiędzy inwestorów, obywateli i państwo? Czy uważa Pan/Pani, że proces wdrożenia CM będzie sprawiedliwy i uczciwy? Czy uważa Pan/Pani, że opinie i oczekiwania wszystkich interesariuszy (np. mieszkańców) zostaną jednakowo wzięte pod uwagę w procesie wdrażania CM?	
Akceptacja	W jakim stopniu akceptowalne jest Pana/Pani zdaniem wdrożenie CM w Polsce?	1 Całkowicie nieakceptowalne 2 Raczej nieakceptowalne 3 Obojętne 4 Raczej akceptowalne 5 Całkowicie akceptowalne
Różnice pomiędzy technologiami wewnątrz kategorii CM	Powyżej przedstawione zostały informacje o poszczególnych technologiach CM. W jakim stopniu akcpetowalne jest dla Pana/Pani wdrożenie w Polsce... ... wychwytu i składowania dwutlenku węgla (CCS)? W procesie tym dwutlenek węgla wychwytywany jest prosto ze źródła emisji np. zakładu przemysłowego lub elektrowni i permanentnie składowany w podziemnych strukturach geologicznych. ... wychwytu i wykorzystania dwutlenku węgla (CCU)? W tym procesie dwutlenek węgla wychwytywany jest u źródła (tj. np. w zakładzie przemysłowym lub elektrowni) a następnie wykorzystany w produkcji np.	1 Całkowicie nieakceptowalne 2 Raczej nieakceptowalne 3 Obojętnie 4 Raczej akceptowalne 5 Całkowicie akceptowalne

Kategoria	Pytanie	Odpowiedzi
	chemikaliów lub paliw syntetycznych. ...bezpośredniego wychwytu dwutlenku węgla z atmosfery (DAC)? W procesie tym dwutlenek węgla zostaje wychwycony bezpośrednio z powietrza, a następnie może zostać wykorzystany lub składowany w podziemnych strukturach geologicznych, choć sam proces jest droższy od pozostałych dwóch rozwiązań.	
	W jakim stopniu akceptowalne byłoby dla Pana/Pani umieszczenie instalacji wychwytu dwutlenku węgla w zakładzie przemysłowym lub elektrowni w Pana/Pani sąsiedztwie?	1 Całkowicie nieakceptowalne 2 Raczej nieakceptowalne 3 Obojętnie 4 Raczej akceptowalne 5 Całkowicie akceptowalne
	W jakim stopniu akceptowalne byłoby dla Pana/Pani korzystanie z produktów (np. paliw) wyprodukowanych z wykorzystaniem wychwyconego dwutlenku węgla?	1 Całkowicie nieakceptowalne 2 Raczej nieakceptowalne 3 Obojętnie 4 Raczej akceptowalne 5 Całkowicie akceptowalne
	W jakim stopniu akceptowalne byłoby dla Pana/Pani wychwytywanie dwutlenku węgla bezpośrednio z atmosfery w Pana/Pani sąsiedztwie?	1 Całkowicie nieakceptowalne 2 Raczej nieakceptowalne 3 Obojętnie 4 Raczej akceptowalne 5 Całkowicie akceptowalne
	W jakim stopniu akceptowalne byłoby dla Pana/Pani podziemne składowanie dwutlenku węgla w strukturach geologicznych w Pana/Pani sąsiedztwie?	1 Całkowicie nieakceptowalne 2 Raczej nieakceptowalne 3 Obojętnie 4 Raczej akceptowalne

Kategoria	Pytanie	Odpowiedzi
		5 Całkowicie akceptowalne
Zaufanie	W jakim stopniu ufa Pan/Pani wskazanym podmiotom? Spółki energetyczne Samorządy Rząd Komisja Europejska Spółki przemysłowe Organizacje pozarządowe Naukowcy Społeczeństwo obywatelskie	1 W ogóle nie ufam 2 3 4 5 Całkowicie ufam
Oczekiwania	Jakie oczekiwania miałby/miałaby Pani w związku z wdrożeniem technologii zarządzania emisjami dwutlenku węgla w Polsce?	Odpowiedzi spontaniczne
	Czy zgadza się Pan/Pani z poniższymi stwierdzeniami za temat technologii zarzadzania emisjami dwutlenku węgla (CM)? • CM pomoże spowolnić zmiany klimatu • CM może szkodzić środowisku • CM pomoże chronić istniejące przemysły • CM jest innowacyjny • CM może wesprzeć konkurencyjność gospodarki • CM jest bezpieczny • CM może negatywnie wpłynąć na społeczność lokalną	1 Całkowicie się nie zgadzam 2 Nie zgadzam się 3 Ani się nie zgadzam, ani się zgadzam 4 Zgadzam się 5 Całkowicie się zgadzam
Pytanie otwarte	Czy jest coś, co Pan/Pani chciałby/chciałaby dodać?	Spontaniczne odpowiedzi

3.2. Focus groups

The target groups for the focus group studies were selected based on the results of the quantitative research described in the relevant chapter. Public opinion surveys indicated that young people in Poland (ages 18–29) declared an indifferent or negative attitude toward CM technologies more frequently than average. After substantive consultations with partners and with the Fraunhofer ISI institute coordinating the study, WiseEuropa decided to conduct both focus groups with young people. In addition to the research problem identified above and defined on the basis of the quantitative analysis, WiseEuropa considered the qualitative study important due to the long-term consequences of both anthropogenic disruptions of climate cycles and the socio-economic impacts of climate policy, which will affect young people and future generations the most. Another important criterion was to conduct at least one focus group in a region where a selected element of the CM value chain could potentially be implemented. The region was chosen based on the potential for storing carbon dioxide in geological formations.

The first focus group session took place on 5 November 2025. The group consisted of students aged 19–24 who were members of an organized group of students interested in energy at the Warsaw School of Economics. Several people participated in the meeting led by WiseEuropa, but only six took an active part in the discussion. The meeting was held on the university's premises. It should therefore be noted that the participants had a higher-than-average understanding of energy and climate policies, the energy transition, and available technologies. The second focus group was again selected based on age (this time a narrower range of 18–19 years) and geography—its participants were young people from the Podkarpackie region, where oil and natural gas extraction takes place and where storage potential therefore exists. The group consisted of students from School Complex No. 2 in Stalowa Wola who were members of the student council. Some participants did not live in the city itself but in neighboring municipalities. Thirteen students took part in the meeting, which took place on 25 November 2025, although only four actively participated in the discussion.

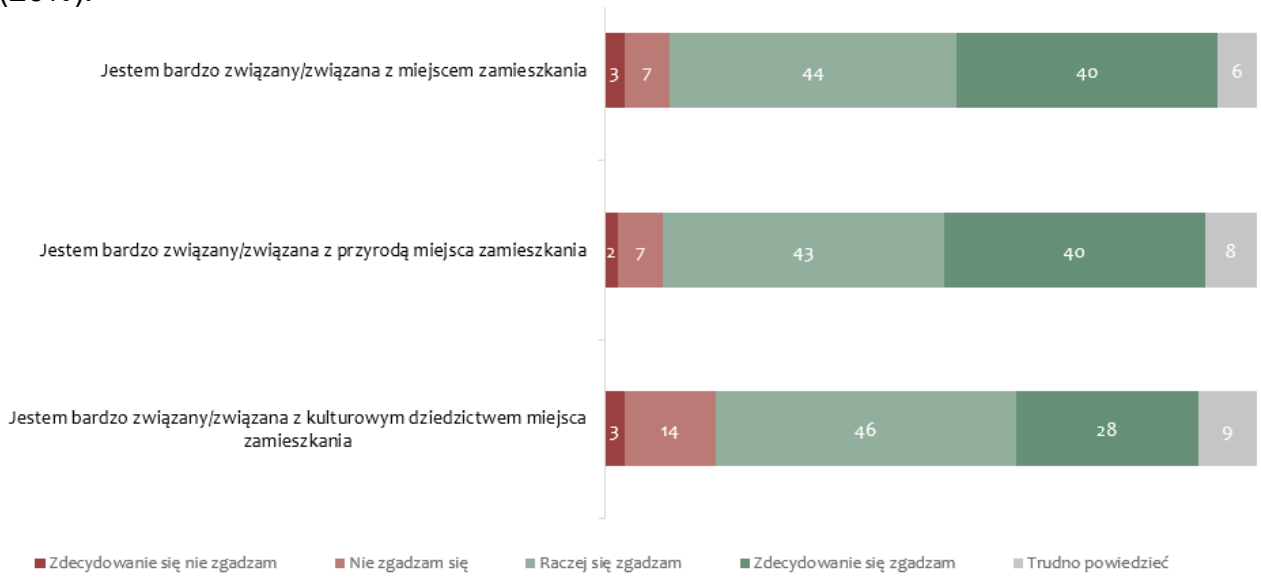
Both focus groups were conducted in a similar manner, with minimal intervention from the facilitator. The session began with a short (approx. 5-minute) expert presentation on climate change and CM technologies. Graphs were shown illustrating rising atmospheric carbon dioxide concentrations and relative temperatures decade by decade, as well as the main objectives of CM development—namely, capturing CO_2 from the atmosphere or industrial sources and subsequently storing it permanently or utilizing it. The facilitator then asked open-ended questions organized into thematic blocks: the importance of climate change for the participants, familiarity with CM technologies, opinions on CM, acceptance of CM deployment, trust in institutions, and expectations related to implementing CM near their place of residence. After the structured part of the discussion, participants had the opportunity to ask the expert questions about CM technologies.

4. Results

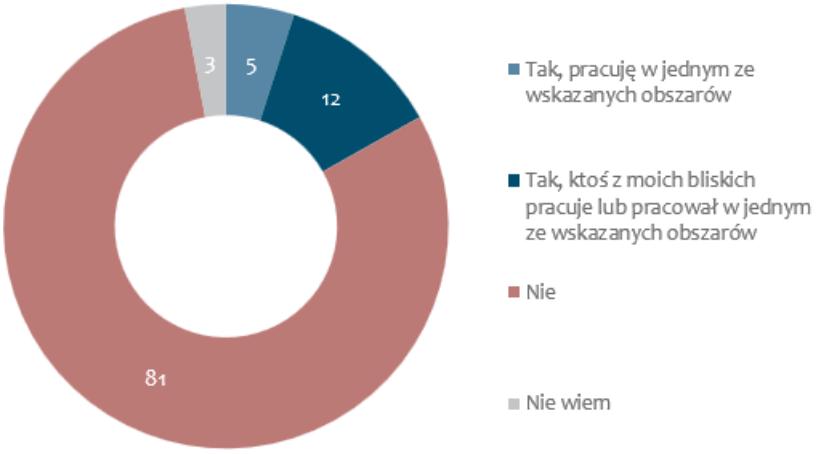
4.1. Results of National Representative Survey

4.1.1. Introductory questions

Before asking questions related to CM technologies, respondents were given introductory questions aimed at determining their general attitude toward climate change and their attachment to their place of residence. In the latter area, the study reveals a picture of a society highly attached to where they live (84% of residents declare such attachment), particularly to the natural environment of their place of residence (83%). Notably, although still significant, a much smaller share of respondents declare attachment to the cultural heritage of their place of residence (74%). Also worth noting is that the youngest respondents express the lowest level of attachment both to the natural environment of their place of residence (16% disagree with the statement in the question) and to cultural heritage (26%).



In the next question, respondents were asked about their personal or family work-related connection to the energy and industrial sectors. The aim was to roughly determine what share of the population is directly affected-through their own or their relatives' jobs-by the decarbonization of these sectors. A total of 17% indicated that they themselves had worked or currently work, or that someone close to them works, in these sectors. As expected, significant regional differences were observed, stemming from the higher concentration of industry, particularly in Silesia and Małopolska.

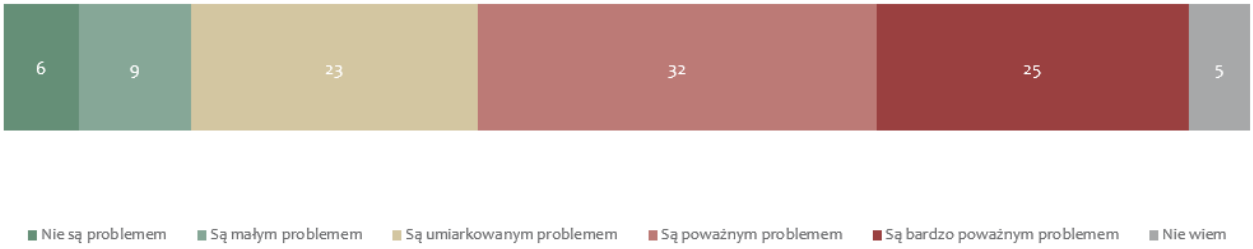


At the same time, work or other forms of involvement in combating climate change or protecting the environment remain the domain of a smaller share of society—30% of respondents work in this area, volunteer, or provide financial support for such activities. This question also revealed statistically significant differences across all three categories considered. In the sample, men were significantly more likely to indicate that they work in one of these areas. Young people, too, most frequently reported employment in one of these fields (10%) as well as volunteer engagement (19%). Differences were also observed between regions—the highest level of involvement was recorded in Małopolska, where as many as 27% of respondents declared volunteer engagement.

However, the most important question in this section concerned the perception of climate change. For 57% of respondents, climate change represents a serious or very serious problem, while for 15% it is a minor problem or not a problem at all, with 23% considering it a moderate problem. Women were significantly more likely than men to indicate that climate

change is a serious issue (63% vs. 51%). Men, in turn, were much more likely to choose the responses “not a problem” or “a minor problem” (19% vs. 11%).

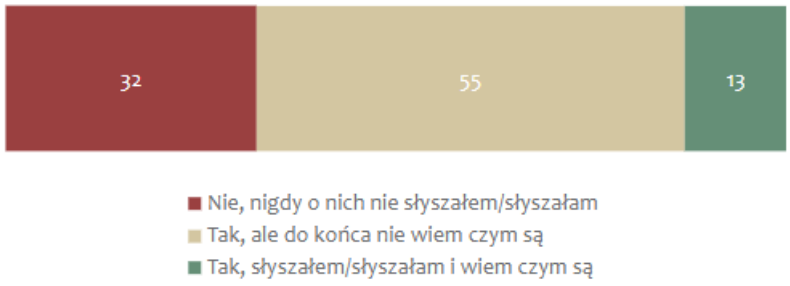
Particularly interesting differences emerged across age groups. The group most concerned about climate change were the oldest respondents (66% selecting “very serious problem” or “serious problem”), especially compared to those aged 30–39 (46%, the lowest result) or 40–49 (53%, with this group also showing the highest share of “not a problem” and “a minor problem” responses—23%). Respondents aged 18–29 and 30–39 most frequently indicated that climate change is a moderate problem—30% and 33%, respectively.



4.1.2. CM technology awareness

The first question relating specifically to CM technologies concerned respondents’ familiarity with them. They were asked: “Have you ever heard of carbon management technologies (Carbon Management, CM)?” The question was accompanied by an explanatory note stating: “These include carbon capture and storage (CCS), carbon capture and utilization (CCU), and direct air capture (DAC).”

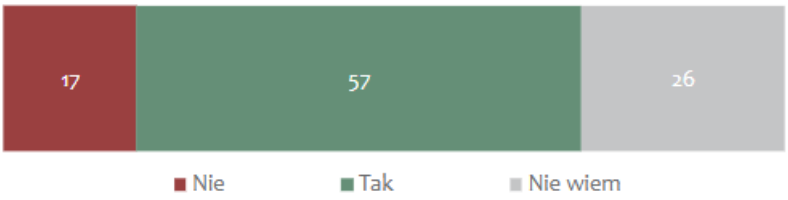
A total of 68% of Poles have heard of carbon management technologies, including 13% who know what they are, while 55% admit that they are not fully familiar with them.



Breaking the results down by individual cohorts, it is worth noting that women more often declared that they had never heard of CM (women: 36% vs. men: 29%). The highest level of awareness was reported among the oldest age group—74% of people aged 60 and over had heard of CM, including 16% who know what the technology is. This level of knowledge stands out particularly in comparison with the youngest respondents (16% in this age group vs. 7% among those aged 18–29). A total of 41% of people aged 30–39 had never heard of CM, indicating that this group is the least informed compared with other age cohorts, especially the oldest respondents (26%). In summary, the statistically best-informed groups regarding CM are men and people over the age of 50, while the least informed groups are women and individuals aged 18–39.

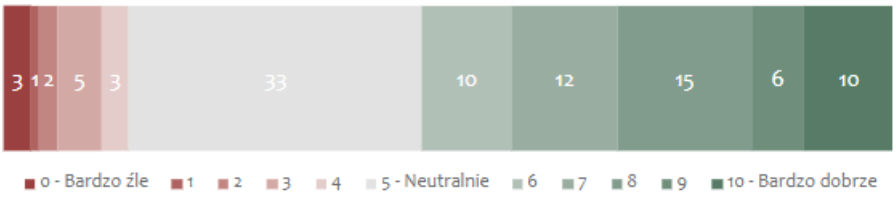
It is also worth noting regional differences at the voivodeship (NUTS-2) level. The highest share of people who had never heard of CM was recorded in the Warmińsko-Mazurskie region (46.2%), while the lowest was in the Lubuskie region (only 12.5%). The highest share of respondents declaring full knowledge of CM technologies was found in the Lubuskie region (25%), and the lowest in the Łódzkie region (7.9%). However, it should be emphasized that the sample size at the voivodeship level was relatively small, which may result in considerable variation.

Another aspect examined in this block of questions was the willingness to expand knowledge about CM technologies. When asked, “Regardless of your current level of knowledge, would you like to learn more about carbon management technologies?” as many as 57% of respondents answered yes, while only 17% stated that they did not wish to expand their knowledge in this area. For this question, no statistically significant differences were observed with respect to respondents’ age or gender.



The final aspect examined was respondents’ attitudes toward CM as a tool for combating climate change, measured on a scale from 0 (“Very bad solution”) to 10 (“Very good solution”). Before answering, participants were shown an information board explaining CM solutions in greater detail; its content is presented in the methodology chapter.

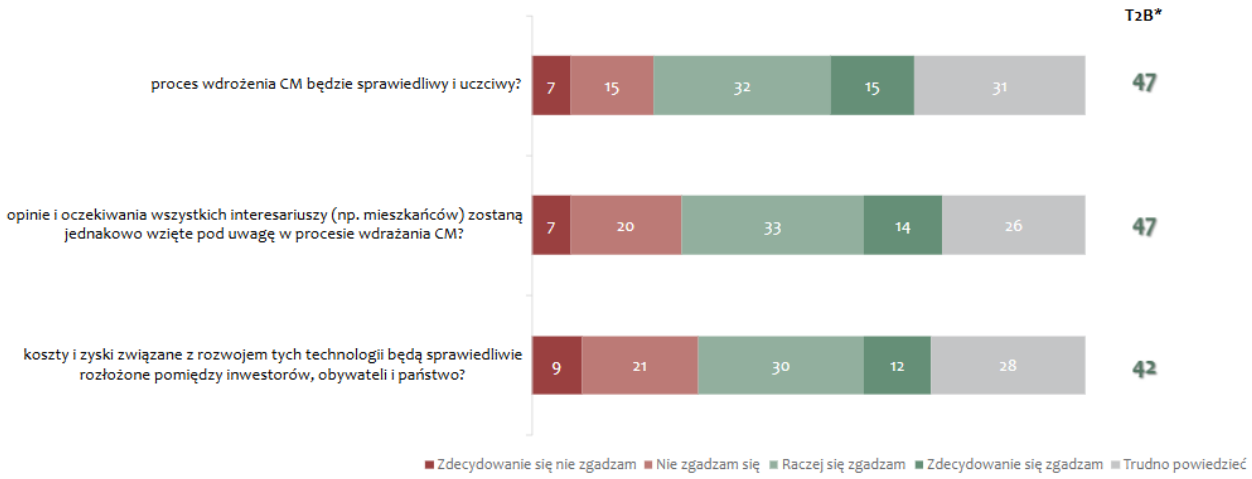
CM technologies as a climate-mitigation tool were evaluated positively—more than half of respondents, 53%, rated them between 6 and 10, while only 14% gave them the lowest ratings. It is also noteworthy that the largest single group of respondents, as many as one third, rated them neutrally.



Small differences between individual cohorts can also be observed. Residents of the Świętokrzyskie (64.3%) and Opolskie (57.7%) regions show an above-average positive attitude. The Podkarpackie region stands out as well, but in the opposite direction - the share of positive opinions there was the lowest, at only 44.9%. This results from the highest proportion of neutral ratings in the country (46.2%). No significant differences were found between men and women, although slight variations appear across age categories. The youngest respondents were relatively the least positive about the role of CM in combating climate change (49.7%), and this age group also had the highest share of neutral ratings (34.9%). The share of respondents with a negative attitude toward CM is comparable across all age groups, with the lowest proportion among those aged 60 and above.

The next aspect examined concerned expectations regarding the CM implementation process in Poland. Nearly half of respondents (47%; combined “Somewhat agree” and “Strongly agree”) believe that the process of implementing CM will be fair and transparent, and that the opinions and expectations of all stakeholders (e.g., local residents) will be taken into account equally during its rollout. A total of 42% agreed with the statement that the costs and benefits associated with the development of these technologies will be distributed fairly among investors, citizens, and the state. At the same time, this question recorded the highest share of responses expressing a lack of confidence in such an equal distribution (30%; combined “Strongly disagree” and “Disagree”).

The noticeable number of neutral responses may indicate uncertainty regarding the CM implementation process in Poland. The share of “hard to say” responses ranged from 26% to 31%.



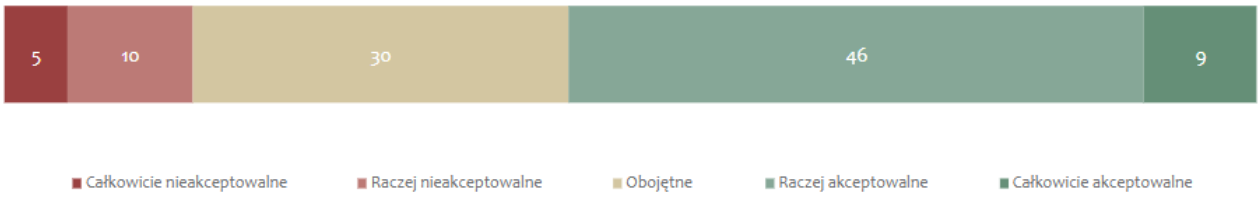
This pattern applies primarily to women, who in all three statements were significantly more likely to declare difficulty in giving a clear answer. When asked whether the CM implementation process would be fair and transparent, 36% of women and 25% of men selected “Hard to say.” Regarding whether the opinions and expectations of all stakeholders (e.g., residents) would be taken equally into account during CM implementation, 30% of women chose “Hard to say,” compared with 22% of men. For the question on whether the costs and benefits associated with the development of these technologies would be distributed fairly, 31% of women and 25% of men selected “Hard to say.” This may indicate that men hold stronger views on CM implementation in Poland, especially since men were significantly more likely to strongly disagree with the statement that the CM implementation process would be fair and transparent (10% of men vs. 5% of women), as well as with the statement that the opinions and expectations of all stakeholders (e.g., residents) would be taken equally into account (9% of men vs. 5% of women).

The overall level of agreement regarding the fairness and transparency of CM implementation is similar across all age groups, ranging from 45% to 51%. A comparable level applies to the consideration of stakeholder opinions (44–51%) and the fair distribution of costs and benefits (38–46%), indicating moderate but stable public trust regardless of age. However, it is worth noting that the oldest respondents (60+) were significantly more likely than those aged 50–59 to choose “Hard to say” (37% vs. 26%) regarding fairness and transparency. A similar pattern appears for the other two statements, though in these cases the differences emerged between the oldest respondents (60+) and the youngest (18–29): 33% vs. 16% for stakeholder consideration, and 35% vs. 22% for cost–benefit distribution. This may suggest greater caution, uncertainty, or lack of full trust in the implementation of new technologies among older individuals, as well as more pronounced opinions among younger generations. Statistically, the highest share of young respondents disagreed with the statement that all stakeholders’ opinions would be taken into account. At the same time, although the youngest group (18–29) does not differ in overall agreement levels, they are significantly more likely than those aged 60+ to strongly agree that CM implementation will be fair and transparent (20% vs. 11%) and that costs and benefits will be distributed fairly (18% vs. 7%).

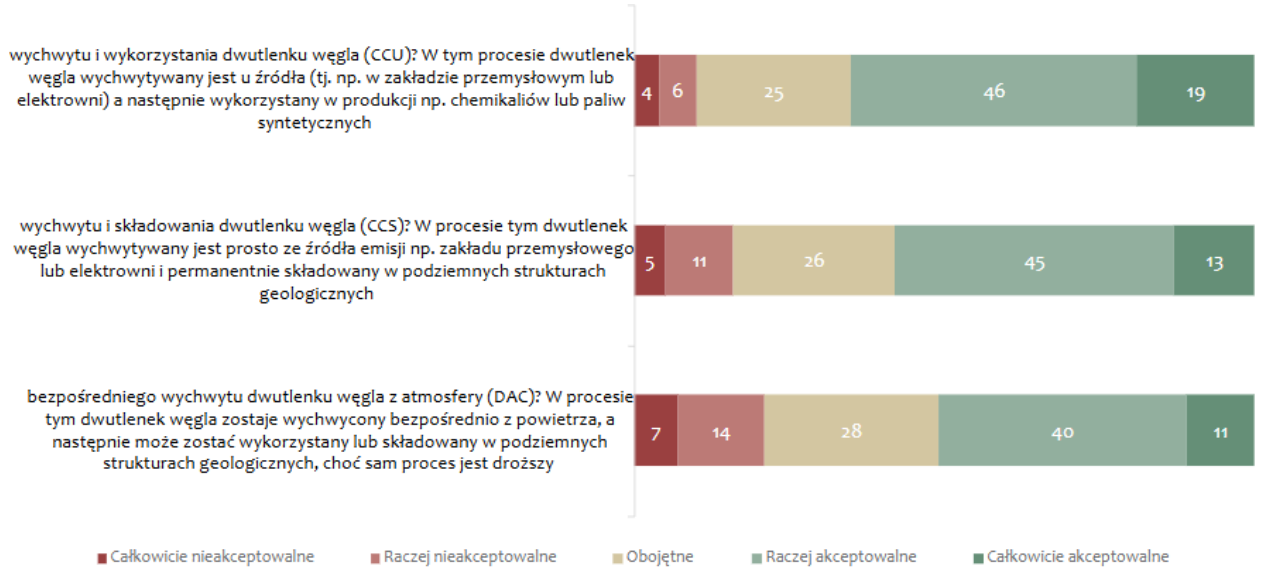
4.1.3. CM acceptance in Poland

The most important section of the entire survey concerned the acceptance of CM implementation in Poland. A total of 55% of Poles accept the introduction of CM (combined responses “Rather acceptable” and “Completely acceptable”), 30% are indifferent, and 15% consider CM implementation unacceptable (combined “Completely unacceptable” and “Rather unacceptable”). The highest level of acceptance was recorded among respondents aged 50–59 (57%) and those aged 60 and above (58%), while the lowest was observed among the youngest participants (46%), who significantly more often than the older groups expressed an indifferent attitude (41% vs. 23% among those aged 50–59 and 26% among those aged 60+).

Clear differences also appear between voivodeships. Residents of the Podlaskie region show the lowest level of acceptance for CM implementation (44.8%), along with the highest share of indifferent responses (41.4%). The most positive attitudes toward CM implementation were recorded in the Łódzkie (63.2%) and Lubuskie (62.5%) regions.



Respondents were then asked about their attitudes toward each of the three technologies collectively classified as CM. Of the three technologies presented, Poles considered carbon capture and utilization (CCU) the most acceptable (65%; combined “Rather acceptable” and “Completely acceptable”). In second place was CCS - carbon capture and storage - which is acceptable to 58% of respondents. Half of Poles would agree to the implementation of DAC—direct air capture—while 21% consider it unacceptable (compared with 10% for CCU and 16% for CCS; combined “Completely unacceptable” and “Rather unacceptable”).



An analysis of the data by respondent age revealed differences in attitudes toward the three technologies. The youngest respondents consistently formed the group least likely to consider any of the technologies acceptable. This was particularly evident for CCU: only 49% of respondents aged 18–29 found its implementation acceptable (compared with 65% among those aged 30–39, 64% among those aged 40–49, 70% among those aged 50–59, and 73% among those aged 60+). Members of the youngest cohort were also more likely to express indifference toward the implementation of innovative systems. Statistically significant differences were observed for each of the three technologies:

- CCU – indifferent: ages 18–29: 36% vs. ages 50–59: 20%, ages 60+: 20%
- CCS – indifferent: ages 18–29: 37% vs. ages 50–59: 22%, ages 60+: 19%
- DAC – indifferent: ages 18–29: 36% vs. ages 50–59: 26%, ages 60+: 24%

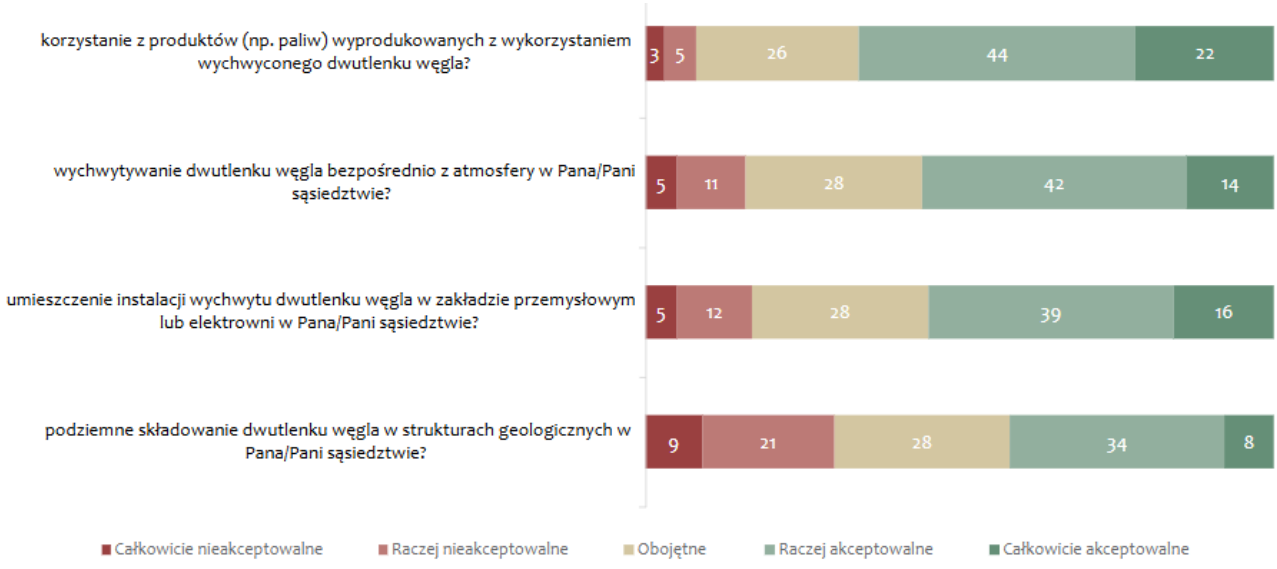
In summary, CCU is most acceptable to respondents aged 60+ (73%) and those aged 50–59 (70%), and least acceptable to the 18–29 age group (15%). CCS is most acceptable to respondents aged 60+ (63%) and those aged 40–49 (60%), and least acceptable to those aged 50–59 (20%). DAC is most acceptable to respondents aged 30–39 (53%) and 40–49 (53%), and least acceptable to those aged 60+ (26%), especially when compared with respondents aged 30–39 (14%; B2B). The evaluations of the individual technologies do not follow a uniform pattern—supporters and opponents are not consistently the same age groups across all technologies.

The next section of questions concerned the acceptability of individual elements of the CM supply chain. Most Poles (92%) see no issue with using products (e.g., fuels) manufactured using captured carbon dioxide—66% consider this rather or completely acceptable, and 26% are indifferent. It is worth noting that this is the only option that does not relate directly to respondents' immediate surroundings.

If carbon dioxide were to be captured from the atmosphere in the respondents' vicinity, 84% of Poles would not object (56% consider it rather or completely acceptable, and 28% are

indifferent). Similar views were expressed regarding the placement of CO_2 capture installations at an industrial facility or power plant near respondents - 83% would not oppose such an action (55% find it rather or completely acceptable, and 28% are indifferent).

The most controversial element is the underground storage of carbon dioxide in geological formations near respondents. Three in ten Poles (30%) consider this process completely or rather unacceptable.



Men display greater openness, which is particularly evident in their attitudes toward placing a carbon-capture installation at an industrial facility or power plant in their vicinity (men: 59% vs. women: 52%), as well as toward underground storage of carbon dioxide in geological formations nearby (men: 45% vs. women: 38%). Women consider this latter option significantly more unacceptable than men do (women: 34% vs. men: 26%).

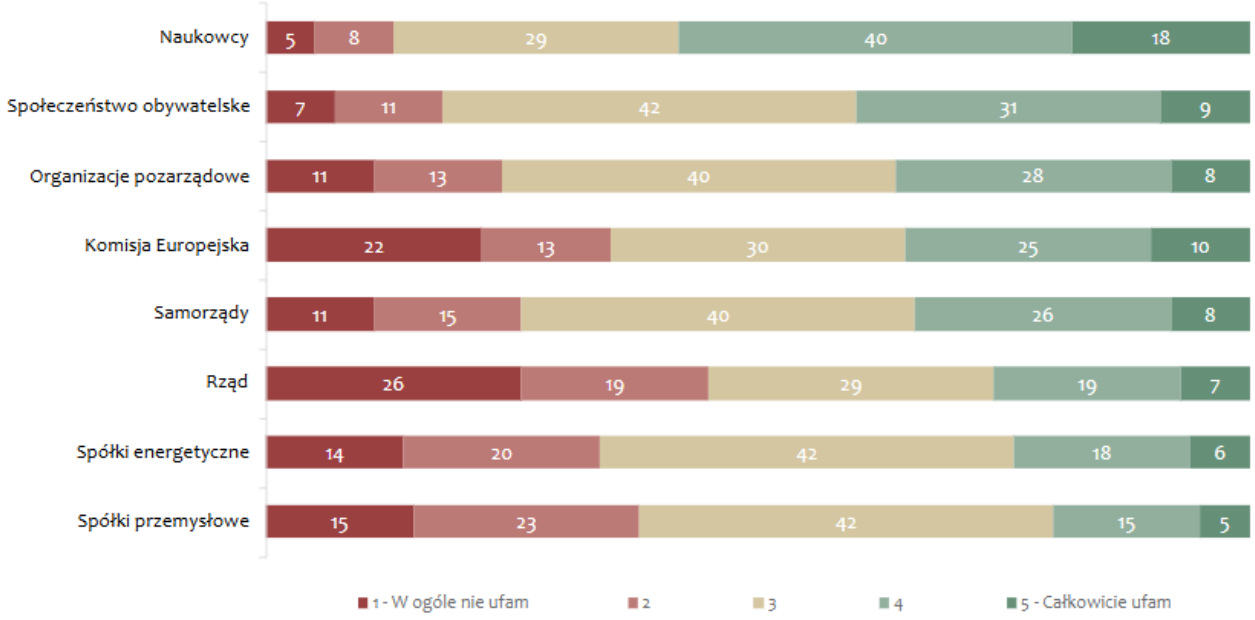
An age-based analysis revealed statistically significant differences for three out of the four actions. The previously observed trend persists: the youngest respondents most frequently fall into the group expressing an indifferent attitude toward the technologies examined. Individuals aged 18–29 are significantly more likely than those aged 60+ to adopt an indifferent stance toward using products (e.g., fuels) manufactured with captured CO_2 (34% vs. 21%). This ambivalent attitude among the youngest respondents is also pronounced regarding the placement of a CO_2-capture installation at a nearby industrial facility or power plant, compared with respondents aged 40–49 (37% vs. 23%).

The process that generates the most controversy—underground storage of CO_2 in geological formations near respondents—is particularly unacceptable to Poles over the age of 50 (ages 50–59: 31%, ages 60+: 38%). In this regard, the oldest respondents (38%) differ significantly from the youngest (23%) and from those aged 40–49 (27%).

As for direct air capture of CO_2 in respondents' vicinity, residents of the Świętokrzyskie region are far more likely to consider this idea completely acceptable (29%) than residents of Silesia (6%).

4.1.4. Social trust

Poles place the greatest trust in scientists (58%; sum of responses 4 and 5 on a 1–5 scale). In second place in the trust hierarchy is civil society (40%), and third are non-governmental organisations (36%; T2B). The least trusted are the government (45%; sum of responses 1 and 2), industrial companies (38%), the European Commission (35%) and energy companies (34%).



Men show significantly lower trust in the European Commission (men: 40% vs. women: 32%). Women, on the other hand, more often express moderate trust (value "3") toward energy companies (women: 46% vs. men: 39%), the European Commission (women: 35% vs. men: 25%), and the government (women: 33% vs. men: 26%).

The highest level of trust in scientists is found among the oldest respondents (64%). People aged 60 and over were far more likely to assign scientists a score of "4" (47%) than those aged 30–39 (36%), and far less likely to say they do not trust the scientific community at all (3%) compared with respondents aged 40–49 (8%). The oldest generation also expresses the strongest trust in civil society (44%)—they assigned it a score of "4" (36%) much more often than those aged 40–49 (26%).

Non-governmental organizations enjoy the highest trust among both the youngest and the oldest respondents (37%). However, respondents aged 18–29 were much more likely to give NGOs the highest possible score (13%) than those aged 60+ (5%).

Another institution most trusted by the oldest respondents is the European Commission (41%). They assigned it a score of "4" (32%) far more often than people aged 50–59 (21%), 30–39 (21%), or 18–29 (21%). The youngest respondents were significantly more likely to give the European Commission a score of "2" (19%) than those aged 60+ (10%).

Local governments enjoy the highest trust among the oldest respondents (41%), who assigned them a score of "4" (34%) much more often than all other age groups: 18–29 (22%), 30–39 (21%), 40–49 (23%), and 50–59 (22%). People aged 40–59 were significantly more likely to say they do not trust local governments compared with the oldest respondents (ages 40–49: 30%, ages 50–59: 31% vs. ages 60+: 20%).

The last institution most trusted by the oldest age group is the government (34%), which clearly distinguishes them from the youngest generation (20%, combined lowest scores) and from respondents aged 40–49 (20%). People aged 60+ were significantly more likely to assign the government a score of "4" (29%) than those aged 18–29 (10%), 30–39 (16%), or 40–49 (13%).

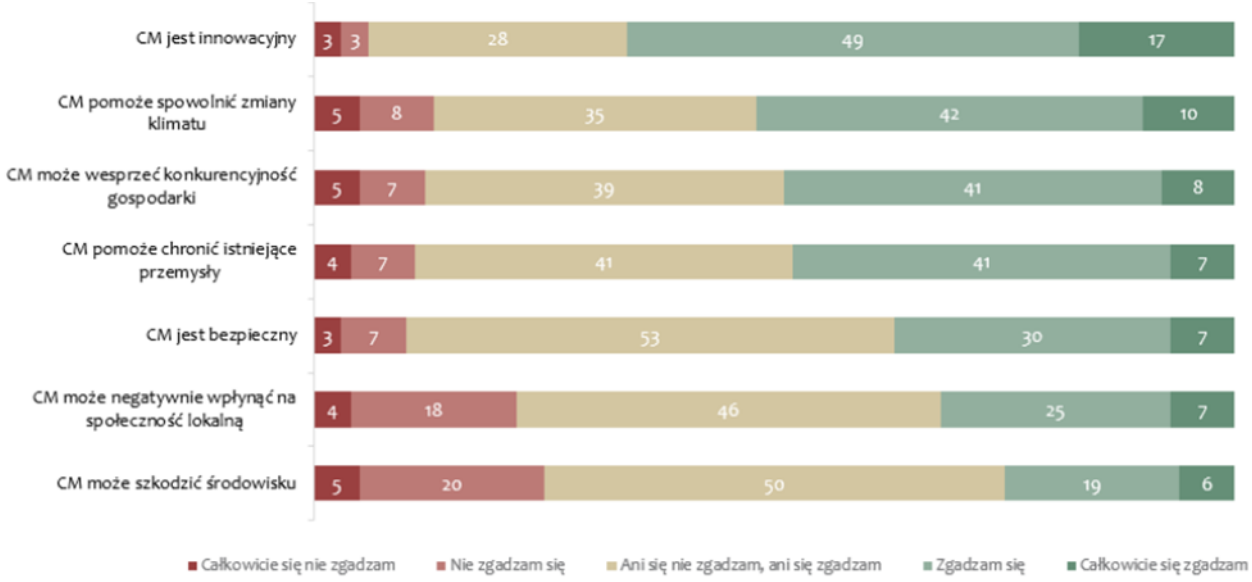
For companies, the pattern is reversed. People aged 60+ were far less likely to say they completely trust energy companies (2%) than respondents aged 18–29 (9%), 30–39 (9%), or 50–59 (7%). The same tendency appeared for industrial companies: the oldest respondents were far less likely to assign the highest trust score (1%) than those aged 18–29 (10%), 30–39 (8%), 40–49 (7%), or 50–59 (5%). Energy companies enjoy the highest trust among respondents aged 30–39 (30%), while industrial companies are most trusted by the youngest respondents (30%), who trust them significantly more than those aged 40–49 (18%) or 60+ (16%).

Civil society enjoys much higher trust in the Lubuskie region (67%) than in Podkarpackie (27%). Residents of the Warmińsko-Mazurskie region were far more likely to assign NGOs a trust score of "2" (28%) than respondents from Mazowieckie (7%; B2B: 19%). Residents of Mazowieckie trust the European Commission much more (46%) than those in Silesia (26%). People in the Świętokrzyskie region were significantly more likely to say they completely trust the European Commission (24%) than those in Lower Silesia (3%). Declarations of complete trust in the government appeared far more often among residents of Lubuskie (21%) than in Lower Silesia (2%) or Podkarpackie (1%). A similar pattern was observed for industrial companies: residents of Lubuskie assigned them the highest possible trust score far more often (29%) than respondents in Małopolskie (5%), Wielkopolskie (2%), Podkarpackie (2%), Silesia (4%), or Lower Silesia (1%).

4.1.5. Opinions about CM

Respondents were also asked to evaluate statements describing CM. In the opinion of the largest share of Poles, carbon management technology is innovative (66%; combined responses "Agree" and "Strongly agree"). Around half of respondents believe that CM will help slow climate change (52%), support the competitiveness of the economy (49%), and help protect existing industries (48%).

Poles are uncertain about whether CM can be considered non-invasive, as many chose the neutral response “neither agree nor disagree”: 53% for the statement “CM is safe,” 50% for “CM may harm the environment,” and 46% for “CM may negatively affect the local community.”



Men are less optimistic about certain statements regarding CM. They disagree significantly more often that CM is innovative, that it will help slow climate change, that it may support the competitiveness of the economy, and that it will help protect existing industries. Women, however, are much more likely to agree that CM may negatively affect the local community.

The innovativeness of CM is most frequently recognized by the oldest respondents (71%), especially when compared with the youngest group (58%). The potential harmfulness of carbon-management technologies is least emphasized by those in the oldest age cohort. The statement that CM may negatively impact the local community receives much stronger support among respondents aged 18–29 (31%), 30–39 (34%), and 50–59 (34%) than among those aged 60 and over (28%). Additionally, the youngest respondents are significantly more likely to agree that CM may harm the environment (28%) compared with the oldest respondents (22%).

Residents of the Mazowieckie region are much more likely to strongly agree that CM can support economic competitiveness (13%; 50% positive responses overall) compared with residents of Silesia (2%; 40%). A similar pattern appears for the statement regarding the safety of carbon-management technologies: residents of the Świętokrzyskie region (14%; 43%) and Mazowieckie (13%; 42%) are far more likely to strongly agree than respondents from Silesia (1%; 35%).

4.1.6. Spontanious answers

Respondents were also given the opportunity to provide an open-ended comment regarding their expectations for the implementation of CM in Poland. The majority of Poles do not

know what to expect from the introduction of carbon management technologies in the country (67%). Among those who did articulate expectations, most focused on cleaner, better air and environment, reversing climate change, and reducing CO_2 emissions (8%). Some respondents expressed hopes for lower living costs and cheaper electricity (3%). Others expected the technology itself to work effectively, to be a helpful solution (3%), and to be safe (3%).

There were also skeptical voices referring to various conspiracy theories. These comments emphasized a lack of trust in the authorities and in the European Union. Some respondents believed that such solutions would allegedly benefit elites rather than ordinary citizens. They called for abandoning the idea altogether, arguing that ecological initiatives are a form of fraud and theft (5%).

4.2. Results of Focus Groups

In the quantitative research discussed above, several unexpected tendencies emerged. One of the most striking was the higher-than-anticipated ambivalence, or even negative attitudes, among young people toward the implementation of CM in Poland. For this reason, the follow-up qualitative study using focus groups concentrated specifically on this social group. Additionally, given the long-term nature of climate policy and the consequences of failing to act in response to climate system disruptions, young people are in fact the age group of greatest importance for the future implementation of CM.

The first focus group was therefore conducted with students from the Warsaw School of Economics (SGH), affiliated with the Student Energy Research Club. The meeting took place on 5 November 2025 at the university and involved six active participants, along with a dozen or so observers. It can be assumed that the participants had above-average knowledge of climate change and the energy transition, which was confirmed by the introductory question about familiarity with CM technologies—most participants declared that they had heard of them. Nevertheless, the discussion was dominated by sceptical attitudes toward CM implementation, and not a single clearly positive statement about CM was recorded.

A key theme that emerged during the discussion was the concern that carbon capture could become a tool for greenwashing and for prolonging the extraction and combustion of fossil fuels. Participants feared that industry and the energy sector might invest in carbon capture in ways that would reduce investment in genuine decarbonisation, understood as phasing out fossil fuels. Similar concerns were raised about delaying decarbonisation not only at the micro level (individual industrial plants and power stations) but also at the macro level (the energy system as a whole). Some participants worried that investments in CM could slow the development of renewable energy sources. Two participants said they would accept CM implementation in Poland only in exceptional cases - where it is absolutely necessary and all other decarbonisation options have been exhausted. One participant also expressed the view that there are better ways to absorb carbon dioxide, such as afforestation or other forms of biomass-based carbon uptake.

Another important aspect raised during the discussion concerned expectations regarding the operation of capture and storage installations if they were hypothetically located near participants' homes. They expressed the expectation that such an installation should not negatively affect the landscape, should not produce strong or unpleasant odours, and should genuinely "make things cleaner." Interestingly, the participants themselves highlighted the need for a public information campaign. In their view, given the low public awareness of CM technologies, social concerns or protests should be expected—and would be entirely natural, as people tend to fear the unknown. They also noted that public sentiment could be particularly negative if the stored CO_2 were imported into Poland, as this might be associated with importing waste. The existence of the NIMBY ("Not in My Backyard") phenomenon was also emphasised as something that could affect CM projects.

Regarding the hypothetical siting of CM infrastructure nearby, one participant stated that geological CO_2 storage would be neutral for him personally, since the CO_2 would be injected into a place from which something had already been extracted. Participants also stressed that they would expect financial benefits for the local community from hosting such an installation. Direct payments resembling dividends were mentioned twice, while no participant spontaneously referred to other forms of benefits, such as investments in local infrastructure.

The final set of issues raised during the discussion concerned trust and concerns. Participants expressed the greatest trust in local government institutions, and some argued that a dedicated contact point for residents—such as a municipal official assigned to the investment—should be established at the local level. Notably, one participant suggested that investors should also involve the local church and clergy in the dialogue, as they are often trusted authorities within the community.

Regarding concerns, apart from the previously mentioned worries about the landscape, participants mainly raised fears of an explosion or a CO_2 leak. Interestingly, the topic of leakage emerged immediately after the facilitator explained the very low probability of an explosion (especially given that CO_2 is non-flammable and non-explosive). One participant remarked that people who are negatively predisposed will always find another concern or argument against the project, and that addressing residents' fears may not produce the desired effect. Participants also agreed that the best way to present information would be through a visual illustration of the process.

After the focus group discussion, participants had the opportunity to ask questions to a WiseEuropa expert, and an open conversation followed outside the methodological framework described earlier in the report. Participants were interested in a wide range of topics, particularly the energy demand of CCS installations, methods for monitoring storage sites and warning the public about leaks, examples of implementation in other countries, and the overall rationale for deploying CM in Poland.

The second focus group was organized in cooperation with Zespół Szkół nr 2 in Stalowa Wola and took place on 25 November 2025 at the school. Thirteen adult students (aged

18–19) participated, four of whom actively engaged in the discussion. Stalowa Wola is one of the larger cities in the Podkarpackie region, an area with oil and natural gas extraction activities and therefore a potential site for underground CO_2 storage in depleted reservoirs. As in the first group, the selection was based on age (the youngest cohort) and region (CO_2 sequestration potential). It is worth noting that some students lived in nearby towns rather than in Stalowa Wola itself.

Before the meeting, the group's knowledge of CM technologies was low. Students admitted that they had heard of carbon capture but had never heard of underground storage or utilization.

The first topic that emerged in the conversation was climate change itself. Two participants—both from farming families—stated that they observe its effects daily and consider it a very serious problem (one rated it 7 on a scale of 1 to 10). They pointed out that winters now bring almost no snow, leading to increasingly long and severe summer droughts, and that crops do not adapt well to changing conditions. As a result, they expressed concern about the future of their families' agricultural activities. One participant added that climate change cannot be stopped, only slowed down.

The next topic was the assessment of CM as a tool for combating climate change. Notably, none of the participants expressed a clear opinion on this issue; instead, they immediately began discussing their concerns about CM implementation. They questioned the cost of the technology and whether it would be "money thrown away," and whether such installations would work effectively at all. One participant said he would fear a massive CO_2 leak that could "kill an entire town." Another worried that CO_2 could react with other substances underground and cause contamination.

Similarly, participants did not express clear views on whether they would hypothetically support locating a CM installation near their homes. Only one participant said he would support it, but he was convinced that residents of his municipality would oppose it. As an example, he mentioned a planned biogas plant that was never built due to local opposition. Residents feared unpleasant odours, even though - as the participant noted - it is well known that biogas plants do not smell.

Participants also identified potential measures that could alleviate their concerns. They emphasized the need for training for relevant services, including emergency responders, so that they would have specialist knowledge of the risks associated with such installations. One participant said he would first want to see such an installation with his own eyes. Interestingly, participants did not spontaneously mention information campaigns or community meetings. Only when asked directly did two participants say they would be interested. One questioned whether he and his peers would attend such meetings at all, as they would "have better things to do."

Participants did not have extensive expectations toward the investor. They mainly expected that the installation would not be noisy. There was strong interest—especially among those connected to farming, due to high fuel consumption—in the possibility of producing synthetic fuel from captured CO_2. They expressed hope that such fuel would be cheaper and made available to the local community on preferential terms.

Participants also expressed a general lack of trust in any institution. One participant stated that representatives of the national government, the EU, local authorities, and even the local parish priest are all “businessmen” who look after their own particular interests. The group agreed that they would prefer to receive information about a CM project from individuals who are in no way connected to the investor, regardless of the institution they represent.

After the structured part of the discussion, participants had the opportunity to ask questions to the WiseEuropa expert. Their questions focused mainly on the costs of building the installation, the risk of CO_2 leakage from the storage site, and the methods for securing the site after the end of its operation.

4.3. Results of Interviews with Key Stakeholders

As part of the in-depth research on opinions regarding the implementation of CM in Poland, a series of three anonymized interviews was conducted with representatives of industries considered key for deploying these technologies. One interview was carried out with a representative of the lime sector, and two others with representatives of the cement sector from two different companies. The interviews were conducted online and each lasted approximately 45–60 minutes.

The first topic addressed in the interviews concerned the impact of climate change on the companies’ operations. Representatives of both sectors agreed that the availability of raw materials used in industrial processes (limestone) is not dependent on climate change. However, the issue of water availability—used in large quantities in the production of certain products—did emerge, particularly in the interview with the lime sector. The representative noted that increasingly severe droughts and water shortages in some parts of Poland could hypothetically pose challenges for certain processes. The cement industry representative added that the company is undertaking measures to improve water retention in its extraction activities. At present, however, this is not considered a major challenge for either sector.

In the view of all interviewees, the most significant challenge is climate policy and the associated regulatory burden on the lime and cement industries. For both sectors, the greatest difficulty lies in process emissions, which account for up to two-thirds of total emissions from installations, as well as the planned phase-out of free emission allowances under the EU ETS by 2034. According to the representatives, all economically justified steps toward decarbonisation have already been taken—such as kiln modernisation, switching to lower-emission kiln fuels, reducing the clinker content in cement, and investing in renewable energy. Further actions in these areas would yield only marginal emission reductions, and the only solution capable of bringing these sectors to net-zero emissions would be the implementation of CM technologies.

It is worth noting that none of the interviewees questioned the rationale behind climate policy. One representative even stated that there is no turning back from it. In his view, industrial decarbonisation is a pathway to increased competitiveness, citing China as an example of a country undertaking extensive decarbonisation efforts for precisely this reason.

The interviewees placed by far the greatest hopes in CCS. In the view of representatives from both sectors, CCS is an essential tool for achieving full decarbonisation, as it addresses process emissions that cannot be avoided in any other way and even opens the possibility of achieving negative emissions. One interviewee additionally referred to the strategic value of locating the entire capture-and-storage chain within Poland, which would strengthen national sovereignty. Nevertheless, all interviewees presented cautious forecasts regarding the pace and scale of CCS deployment in Poland. According to one representative, every cement plant should have the option to invest in a capture installation, but the greatest benefits of this technology would materialise only in 20–30 years. He also believed that underground CO_2 storage in Poland is unlikely before 2035. Another interviewee similarly estimated that by 2035 at most one industrial facility in Poland would be equipped with CCS, with more substantial development expected closer to 2050. One participant also expressed concern that the implementation process might unfold in a suboptimal way, failing to take advantage of Poland's significant potential and thereby forfeiting the opportunity to become a regional leader.

Perspectives on CCU differed across sectors. The representative of the lime industry highlighted demand-side challenges as well as the need for captured CO_2 to meet strict purity standards. One representative of the cement sector argued that CCU has limited potential in cement production and is more likely to develop in other industries, such as chemicals. Another cement industry representative, however, stated that using captured CO_2 as a feedstock should be a long-term goal, although it remains difficult to implement at present due to technological and financial barriers.

All interviewees were critical of the prospects for large-scale deployment of DAC. One described it as unrealistic due to the high demand for renewable energy required by the process. The lime industry representative added that DAC is expensive and inefficient. A cement industry representative expressed a similar view, additionally pointing to logistical challenges—namely, the need to collect CO_2 from many small, dispersed capture points and transport it to a single large storage site. His company intends to monitor the development of these technologies but is not investing in them.

For these reasons, all interviews focused primarily on CCS technologies, with development barriers emerging as one of the central themes. Based on the interviews, these barriers can be grouped into two main categories: legislative and financial. All interviewees pointed to fundamental gaps in Polish legislation, most notably the absence of a ministerial regulation specifying permitted CO_2 storage locations (all interviews were conducted before the draft regulation was released for public consultation on 22 December). They also noted the lack of support schemes, such as carbon contracts for difference, and the absence of decisions regarding the development of CO_2 transport infrastructure. One interviewee stressed that more than two years had passed since the last amendment to the Geological and Mining Law, with no progress since then—something he believed contributed to growing frustration in the industry over government inaction. Interviewees also pointed to the lack of implementation of the EU's Net Zero Industry Act, which would streamline CM deployment procedures, as well as the absence of relevant international agreements. Comparisons were made with other European countries - such as Denmark, Germany, and Latvia - which have made significantly greater progress in the same period.

The second major barrier identified in the interviews concerns financial factors. Representatives of both sectors emphasised the high investment costs, described by one interviewee as the largest capital expenditure in the sector in decades—costs that could rise further if CO_2 had to be exported abroad. Carbon contracts for difference (CCfDs) were repeatedly mentioned as a missing support instrument. One interviewee added that, beyond high investment costs, companies must also contend with uncertainty over EU ETS allowance prices, which fluctuate significantly.

Infrastructure-related barriers were primarily associated with transport and storage infrastructure. The lack of storage capacity in particular makes it difficult to commit to capture projects. One cement industry representative explained that his company is attempting to break this deadlock by investing in a capture project despite the absence of storage options in Poland and the lack of an export terminal—although this complicates logistics and increases potential costs. Another representative noted that the location of his cement plant makes CCS installation impossible without developed regional storage sites and, above all, transport infrastructure.

Another recurring theme was access to renewable energy. Interviewees stated that their companies already achieve a high share of renewables (95–97%), but further investment is necessary to continue decarbonization - particularly to power capture installations and eventually electrify kilns.

An important element of the interviews was the discussion of respondents' expectations. An interesting theme that emerged in two of the interviews was the expectation of government support through demand-side stimulation, for example in the form of "green public procurement." In their view, one of the key challenges will be finding buyers willing to purchase a decarbonised product that is initially more expensive. One interviewee expressed hope that carbon-footprint accounting would be based on "physical" measurements and that green public procurement would additionally help support Polish companies. In this context, it is worth noting that interviewees also called for CM projects to be treated as strategic for the Polish economy—something that is unfortunately not the case at present. Appeals were also made for accelerating legislative changes and launching an information campaign aimed at increasing public awareness and acceptance of CM technologies.

Another important theme in the interviews concerned the social dimension of CM deployment. Interviewees highlighted several aspects of this issue. One noted that, from his perspective, carbon capture itself should not pose major challenges for public acceptance, whereas storage is likely to be more contentious. Two interviewees argued that responsibility for building acceptance should lie more heavily with the government, NGOs, and entities involved in storage projects. They referred to the successful public-information campaign on nuclear energy, which significantly increased support for that technology. The companies employing the interviewees are also engaged in dialogue with local communities. One representative stated that continuous dialogue is maintained regarding decarbonisation activities, while another mentioned that one such meeting had taken place. In addition to plans and actions, benefits for local communities are also communicated. Notably, one interviewee stressed that capture and storage technologies are, in his view, somewhat abstract concepts, making it difficult for local communities to grasp their potential

benefits. Yet communicating these benefits is seen as the key to successful outreach and building acceptance for CM.

In summary, industry representatives participating in the in-depth interviews view CCS - though not necessarily CCU or DAC - as an essential component of decarbonising their sectors. At the same time, growing frustration is evident regarding the slow pace of government action, which is perceived as hindering the development of such projects in Poland.

5. Discussion

The landscape of public interest presented above may have implications for the implementation of CM in Poland. Researchers and commentators of the Kantar study point to an overload of negative information as one of the factors contributing to declining public mobilisation to take action against climate change. In the author's view, two additional factors reinforce these attitudes. First, in recent years, political parties and movements - mostly right-leaning - questioning the rationale for climate policy have gained prominence across Europe, including in Poland. In response, some mainstream political parties have begun distancing themselves from ambitious climate policies in an attempt to halt the rise of these groups and appeal to their electorate. As a result, the public has received a signal that climate policy is not as important as previously claimed, which may have influenced shifts in social attitudes.

The second factor worth noting is the public perception of material well-being. Although the share of people who rate their financial situation as poor has been declining for years, and the share of those who rate it positively has been rising, the dominant response in CBOS surveys remains "we live moderately," indicated by 52% of respondents in 2024. CBOS research on the electoral profiles of political parties shows that voters of far-right parties are significantly more likely to assess their material situation as poor, even when their incomes are objectively high. Therefore, the high proportion of people who rate their financial situation as average or poor (a combined 68%) creates fertile ground for political movements advocating a slowdown of climate policy.

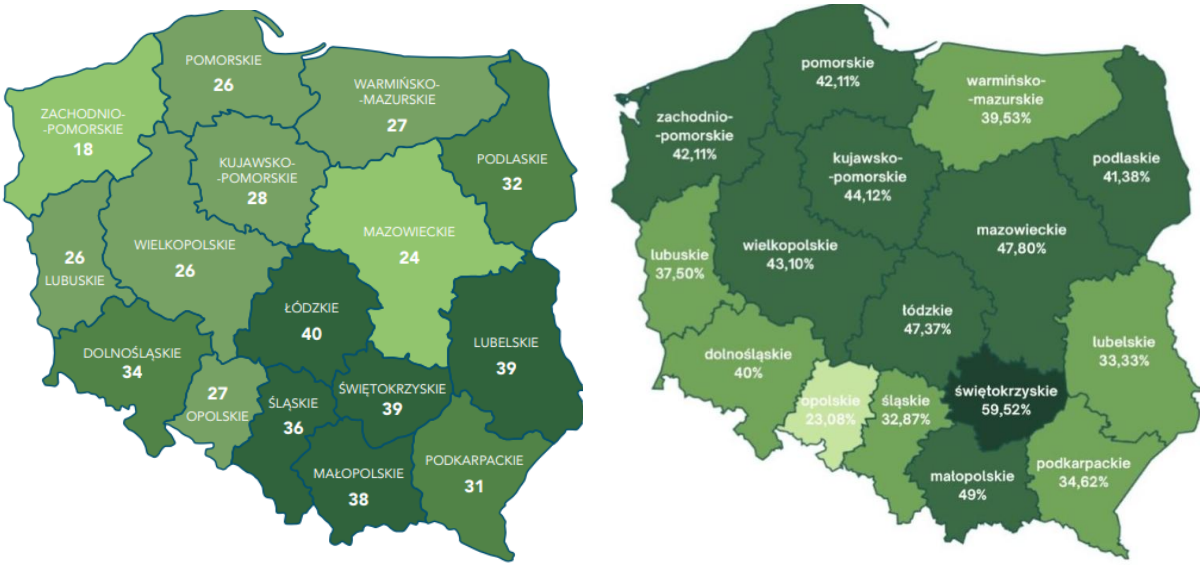
For this reason, communication about CM projects based on their climate benefits may resonate with fewer people, and the capital-intensive nature of these technologies may become a significant barrier to public acceptance—especially if they are to be co-financed (e.g., through CCfDs) with taxpayer money. It is worth noting that the issue of CM costs appeared in the focus groups and often triggered sceptical attitudes toward these technologies. While in the case of CCS, communication focused on benefits such as preserving industrial jobs may align with the trend of declining interest in climate action and growing emphasis on personal benefits, in the case of DAC—costly and not directly linked to job protection—the task appears particularly challenging.

Another interesting aspect is the declared high level of familiarity with CM technologies among respondents. In the survey conducted for this project, as many as 68% of

respondents stated that they had heard of CM, including 13% who said they knew what these technologies are, and 55% who admitted they did not fully understand them. This contrasts with studies on CCS awareness, where 70–77% of respondents declared no familiarity with such technologies. The most likely explanation lies in the different terminology used. The phrase “carbon capture and storage” is technical and not widely present in Polish media, whereas “carbon management” is more general and may evoke associations with emissions trading or climate policy more broadly. Explaining this phenomenon would require further research beyond the scope of this study, but it is a noteworthy observation with implications for CM communication: it may create a false sense of familiarity while simultaneously causing confusion.

Aside from the incomparable level of declared awareness, the remaining results are broadly consistent with existing knowledge or reasonable expectations.

One area where the findings diverge from previous studies is the geographical distribution of support for underground CO_2 storage in Poland. Below is a comparison of the results from the spring 2024 survey (left) and the October 2025 survey (right), broken down by voivodeship (NUTS-2). It should be noted that the questions differed slightly: in 2024 respondents chose between “yes,” “no,” or “hard to say” when asked about acceptance of a storage site in their place of residence, whereas in 2025 the results reflect the combined share of “rather acceptable” and “definitely acceptable” responses to a question about storage in the respondents’ vicinity. Therefore, the results can only be compared in relative terms across voivodeships.



What stands out most is the higher level of support—comparable to that in other parts of the country—in the West Pomeranian and Mazovian voivodeships, which previously showed the lowest acceptance for underground CO_2 storage. Of course, it cannot be assumed that support in these regions suddenly increased; however, an optimistic interpretation would suggest that acceptance for sequestration in these areas may not be as low as initially believed. A more pessimistic interpretation would assume that

underground CO_2 storage remains a relatively new and somewhat abstract topic, meaning that many people have not yet formed strong opinions, which in turn may lead to fluctuations in expressed support.

Nevertheless, the new study partially challenges the conclusion from the 2024 report Social Acceptance of CCS Technologies in Poland, which suggested that the highest support for underground storage was found in southern Poland—an area with the greatest concentration of industry and potential hydrocarbon reservoirs. According to the latest findings, the south does not differ significantly from the rest of the country in terms of support. At the same time, the proportions among the four southern voivodeships remain consistent: lower support in Opolskie, Śląskie, and Podkarpackie, and relatively high support in Małopolska—mirroring the distribution observed in 2024.

A particularly interesting phenomenon is the Świętokrzyskie voivodeship. Although it recorded the second-highest level of support in the CCUS.pl project, the latest study shows an exceptionally high acceptance rate (59.5%) for CO_2 sequestration—despite the absence of suitable geological formations for storage in the region. Additionally, 16.7% of respondents there stated that they had heard of CM and knew what the technologies were (compared with 13.3% nationwide), and as many as 52.4% rated CM technologies positively (scores 6–10) as tools for combating climate change—the highest share in Poland. Świętokrzyskie also recorded the highest acceptance for all three categories: CCS (64.3%), CCU (78.6%), and DAC (59.5%). Residents also showed the strongest enthusiasm in other questions, including acceptance of direct air capture near their homes.

Although this project did not include an in-depth investigation of the causes, it is worth noting that in early September 2025—three weeks before the survey—the first DAC installation in Poland was announced in Kielce, located in Świętokrzyskie. The announcement received considerable attention in local media. One may therefore hypothesize that the combination of this announcement, previously high support levels, and an above-average share of residents connected to industry contributed to the surge in acceptance. For comparison, in the Kuyavian-Pomeranian voivodeship, where the first CO_2 capture project at Holcim's cement plant is underway, support for capture installations is also above the national average, although it is unclear whether a similar "novelty effect" occurred.

If this hypothesis proves correct, it would offer an important lesson for CM development in Poland: implementing pilot projects—and demonstrating that they work—may help build public acceptance. This idea also surfaced in the focus groups, where some participants stated that seeing a functioning CM installation with their own eyes would increase their support for local deployment.

Across the country, respondents also showed a clear preference for CCU. The utilization of captured CO_2 is the most widely accepted area of CM, and respondents reacted most positively to the idea of using products made with captured CO_2. One industry representative even suggested that CCU would ultimately become the primary CM solution. In one focus group, the prospect of producing synthetic fuels—potentially offered to local communities on preferential terms—generated strong interest. This suggests that, like CO_2 capture, CCU is unlikely to face major social-acceptance barriers.

However, the studies also reveal another trend that became central to the qualitative part of this project. Young adults (18–29) most frequently selected “indifferent” when asked about their attitude toward CM technologies. They were also more likely to say they did not feel attached to nature or cultural heritage, while at the same time being the group most likely to work in sustainability-related fields or volunteer for climate and environmental causes. They also most often described climate change as a “moderate” problem and least often as a “very serious” one. Young respondents were the least familiar with CM technologies and most likely to believe that CM could harm the environment.

Certain contradictions also appeared in their expectations and trust assessments. Young people were most likely to believe that CM implementation in Poland would be fair and that costs and benefits would be distributed equitably among investors, the state, and society. Yet they were also the group most likely to believe that the opinions of all stakeholders - including residents - would not be taken into account equally. In terms of institutional trust, young respondents did not differ dramatically from other age groups, but they displayed significantly higher distrust toward the government (50%) and the European Commission, while simultaneously showing slightly higher trust (though still low overall) in energy and industrial companies.

Thus, the study paints a picture of young people marked by internal contradictions: more engaged in environmental action, yet viewing climate change as a moderate threat; trusting the fairness of CM implementation, yet deeply distrustful of authorities; and expressing the highest levels of indifference toward CM technologies. These observations, combined with the fact that young people and future generations will be the main beneficiaries of CM, motivated the focus on youth attitudes in the qualitative research.

Similar shifts in youth engagement and climate activism have been observed in other studies, including the aforementioned Kantar survey, which indicates that the traditional image of a climate-driven young generation is no longer entirely accurate. It is important to note, however, that conclusions drawn from two small focus groups cannot explain broader societal phenomena - they can only serve as a basis for hypotheses.

Nevertheless, in both focus groups, a certain distance and scepticism toward CM - especially CO_2 capture and storage - were evident. Part of this scepticism stemmed from limited knowledge: youth researchers note that this age group is more likely than others to choose neutral or “no opinion” responses when they lack information. Given that young respondents in this study were significantly more likely to declare unfamiliarity with CM technologies, this may explain the high level of indifference. At the same time, focus-group participants expressed numerous concerns about underground CO_2 storage, which did not diminish over the course of the discussion. Another important source of scepticism was cost-related: fears that CM would be expensive but ineffective. Distrust toward institutions also played a role, culminating in one participant’s appeal that CM communication should not be conducted by anyone connected to investors. Local context also mattered: despite high overall trust in local governments, in some communities they may be seen as undesirable partners due to lower local trust levels.

6. Conclusion

This report provides the most up-to-date overview of public awareness and social acceptance of CM technologies in Poland. It can therefore be treated, on the one hand, as a research document aiming to describe the issue as comprehensively as possible, and on the other hand, as a practical guide for all stakeholders involved in CM deployment in Poland—social, local-government, and business actors alike. The purpose of this report has been to equip all stakeholders with knowledge that enables them to better understand one another, thereby fostering improved social dialogue, which is essential for the successful implementation of CM technologies in Poland.

The findings of this study will also inform the planning of further activities within the EUKI GreenHorizon project. By 2027, the project will include numerous meetings and workshops with representatives of public administration as well as local residents. The results presented here will serve as the basis for developing high-quality educational materials tailored to the needs of communities in regions with high CM deployment potential, and for explaining to public authorities the importance of social acceptance and the nuances of how it manifests in Poland. The conclusions of this report will also be summarised in a concise briefing note outlining the current state of CM implementation in Poland.

7. Bibliography

Dütschke, E., & Duscha, V. (2022). *Engaging the public with CCUS: Reflection on a European project approach*. SSRN. Retrieved from http://hdl.handle.net/10451/57589

Giers, M., Rubaszek, M. (2024). Społeczno-ekonomiczne korzyści z wdrożenia CCUS w Polsce. WiseEuropa.

Giers, M. (2024). Akceptacja społeczna technologii CCUS w Polsce. WiseEuropa.

Giers, M. (2024). Finansowanie rozwoju technologii CCUS w Polsce. WiseEuropa.

Giers, M. (2025), National Study on Capacity Gaps in Carbon Management: Emphasizing Carbon Capture and Storage Deployment in Poland. Warsaw.

International Energy Agency. (2025). *World Energy Outlook 2025* (PDF). International Energy Agency. Retrieved February 4, 2026, from https://iea.blob.core.windows.net/assets/81980a53-9716-47f1-904e-b92a2c4d2ea4/WorldEnergyOutlook2025.pdf.

Oltra, C., Sala, R., & Boso, À. (2012). The influence of information on individuals' reactions to CCS technologies: Results from experimental online survey research. Greenhouse Gases: Science and Technology, 2(3), 209–215.

Upham, P., Oltra, C., & Boso, À. (2015). *Towards a cross-paradigmatic framework of the social acceptance of energy systems*. Energy Research & Social Science, 8, 100–112. https://doi.org/10.1016/j.erss.2015.05.003

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