
Perceptions of CCUS in Central and Eastern Europe

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Context

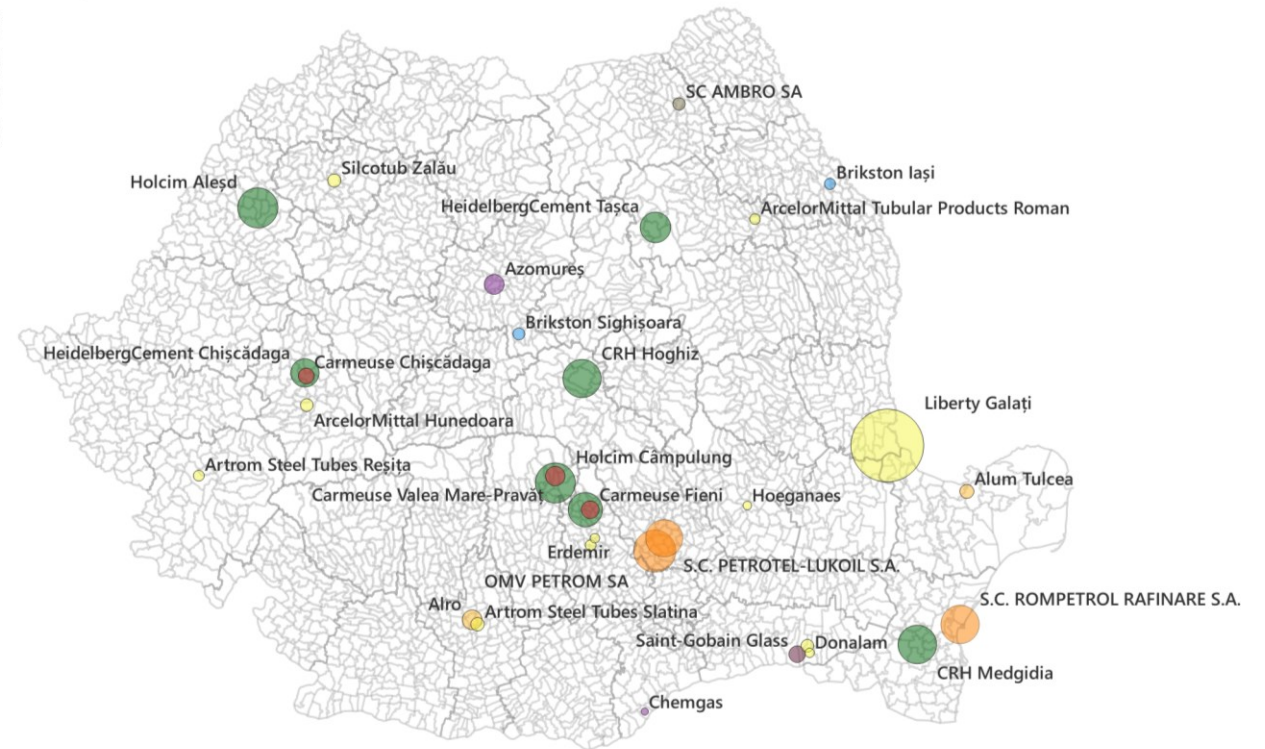
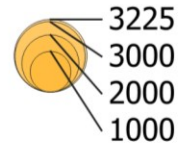
• Who is Energy Policy Group?

- Independent, not-for-profit think tank based in Bucharest
- Specialized in energy and climate policy
- Focus on Romania and CEE region
- Working on CCUS since 2021
- Co-chair of WG on public perception of the EU Commission's CCUS Forum
- Regular input into public consultations at national and EU level

• CCUS in Romania

- Demonstrator attempt in 2011 (Getica project, 1.5 MtCO₂ capture (CAP), aquifer storage)
- Suitable industries: cement, lime, oil refining, chemicals production (incl. ammonia)
- Storage potential: 9 Gt (EU GeoCapacity, conservative), 21.4-53.4 Gt (CO2Stop), ~500 Mt in depleted HC reservoirs (FPPG), further study needed
- CCS Directive transposed, lacking secondary legislation/adequate procedures
- CCUS included in Long-Term Strategy for Climate Neutrality (2.6 Mt/year from cement and lime by 2050)
- Relatively low political salience and interest in discussing CCUS
- Little public awareness and concerted discussion on the topic

CO-2 eq emissions 2022
(Thousand tonnes)



EPG's CC(U)S projects

CCS4CEE

- Objective: relaunch the discussion on CCS in 11 CEE countries
- Work Packages
 - Status quo assessment
 - Roadmap for CCS deployment
 - Networking and capacity-building
- Cross-border cooperation and knowledge exchange
- Funding: EEA and Norway Grants Fund for Regional Cooperation
- Closing end of 2023



ConsenCUS

- Objective: demonstrate novel capture and conversion
- EPG Work Packages
 - Monitoring narratives on CCUS
 - Policy recommendations
 - (Community engagement)
- Other WPs on technology development and demonstration, storage capabilities assessment, techno-economic assessment
- Funding: Horizon 2020
- Running until 2025



Why should we consider public perception?

Experience from past projects

- Right to information of citizens and other stakeholders
- Wide variation in political attitude towards CCUS
- Lack of meaningful inclusion in climate strategies
- Fragmented strategic approach to implementation
- Risks and risk perceptions
- Reliance on public funding
- Risk of diverging perceptions between national and local levels
- Concrete examples of opposition: Barendrecht, Belchatow, ... ; issues with onshore storage (but sometimes also offshore)

Specifically in CEE

- Low salience of climate change discussion and weak climate policy; potential resistance to subsurface “exploitation”
- Potential resistance to CO₂ imports; CO₂ as “waste” (Romania)
- Low institutional capacity on decarbonization and CCUS implementation, low innovation spend

Future deployment of CCUS at scale

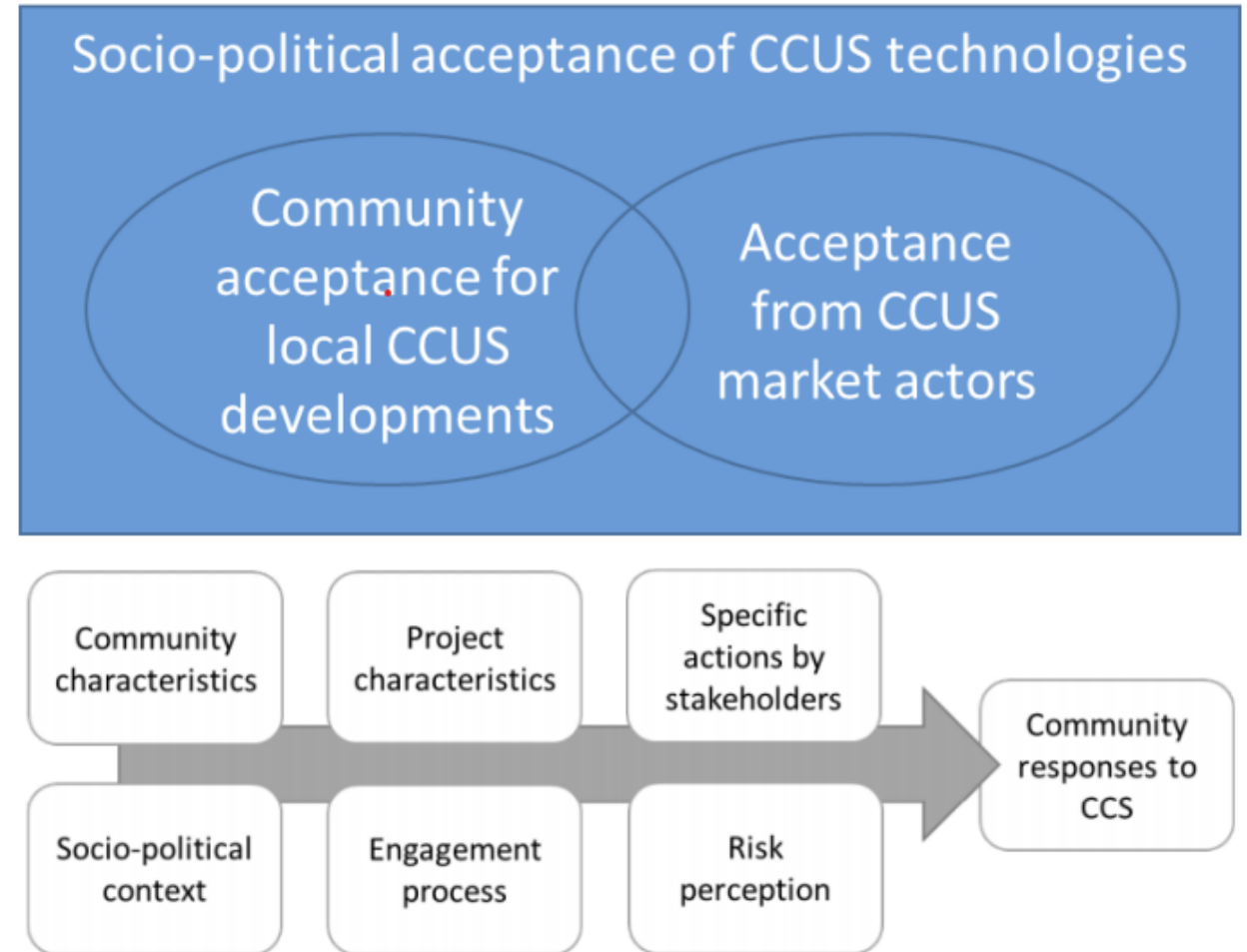
- Public debate and discussion must start early; windows of opportunity are closing
- Public discussion and policy planning must focus on CCUS as one of a number of solutions and not a “silver bullet”
- Rollout at pace and scale should not undermine transparency and engagement with communities
- Importance of procedural justice
- Carbon capture deployment in Just Transition regions
- Importance of building trust with project developers
- CCUS can become a good-practice example for engagement

Specifically in CEE

- Low trust in government and authorities
- Recent case of local resistance against onshore CO₂ storage (Romania)
- But within-region differences will also appear (Croatia onshore storage)

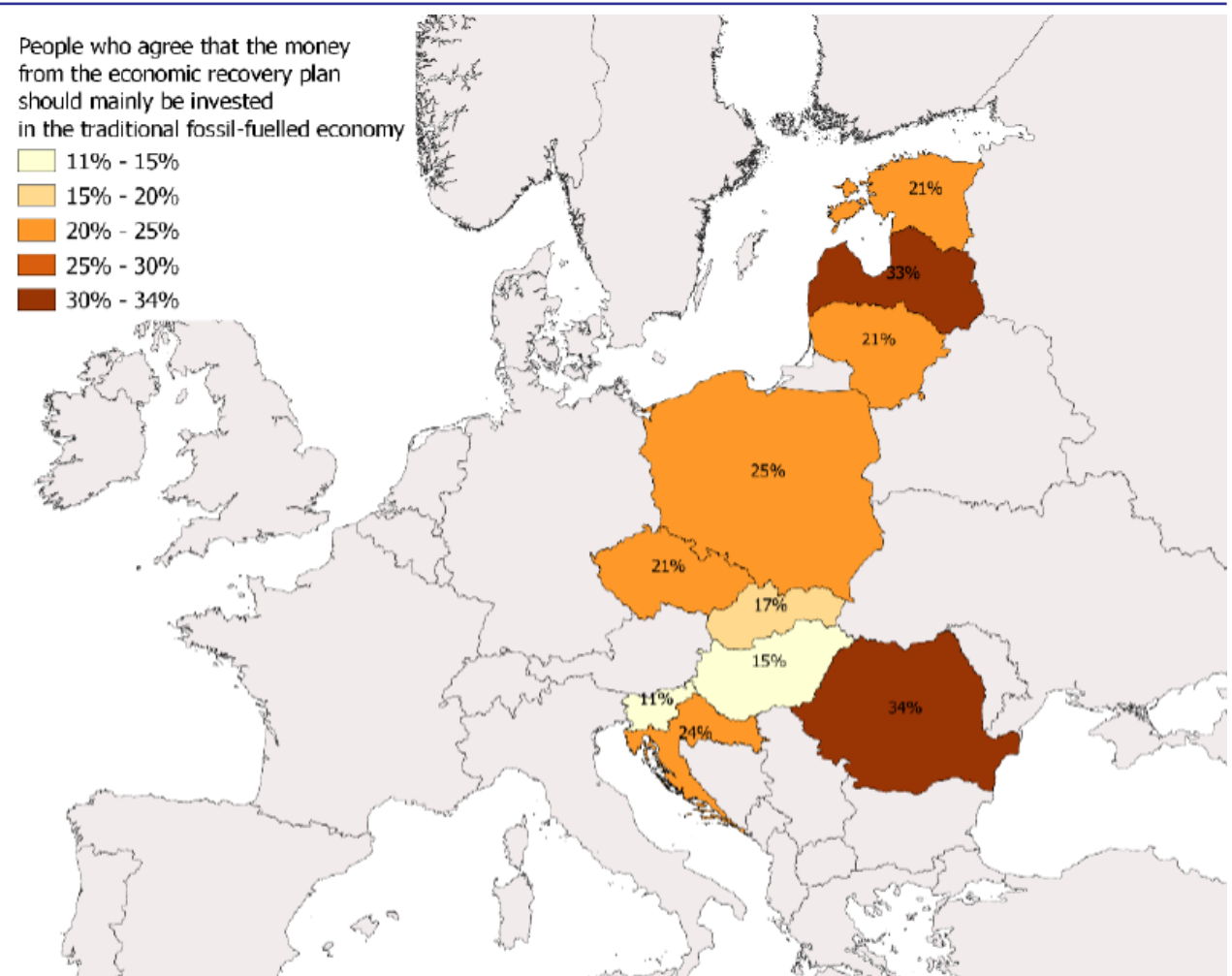
Existing research on public perception

- Different and interacting levels of acceptance and perception in multi-actor systems
- Differences across European countries (storage potential, trust in public institutions, experience with CCS, climate change narrative)
- Differences across the value chain (locus of capture, whether and where CO₂ is stored or used)
- Discussions on CCUS primarily storage-focused, CCU has received less scrutiny
- Current low levels of knowledge and awareness, little familiarity with subsurface
- Recent research shows no clear preferences for onshore vs. offshore storage
- Main narratives around CCUS are climate mitigation, industrial/economic revival, also “solidarity” narrative
- Community responses affected by a variety of factors at local level



Main findings (CCS4CEE)

- Stakeholders cautious about deployment
 - In some cases, CCU favoured over CCS
 - High costs, lack of clear government support cited as main barriers
- Public awareness extremely limited, but strong belief in CCUS as a climate mitigation tool (new Eurobarometer survey needed)
- Respondents wanted to be involved in planning and implementation
- Public acceptance of CCUS must be contextualized in recognizing climate change as a problem – lower than the EU average in CEE countries
- ... and in use of public funding – all but HU and SI above EU average in believing RRF should support fossil-based economy
- Few country-specific studies and experiences: most important in Poland and Romania, plus surveys in Croatia
- CCUS perception may have parallel with subsurface interventions: mining (Čínovec, CZ; Kremnice, SK, Roșia Montană, RO), fracking (Pungești, RO) and energy projects (LNG terminals, nuclear waste storage, wind farms)



Main findings (ConsenCUS)

- Monitoring and analysis of strategic narratives around CCUS in Romania, Greece, and Denmark
- Based on the Narrative Policy Framework (NPF): narratives (storytelling) play a central role in construction of reality
- Elements: characters (heroes, villains, victims), plots, moral of the story, setting, strategies
- Huge difference in volume and tone between Denmark and Greece and Romania (less content, more value judgements, embracing the sensational)
- Some examples:
 - Romania: “the Icelandic alchemists that are saving the planet”
 - Greece: “the Greek dream team”/“saviour of the climate”/
 - Denmark: “a reverse adventure for Denmark, traffic in the North Sea is being reversed”



Takeaways

- Public perception, particularly local acceptance, is an important factor for CCUS deployment
- Perceptions vary across Europe, across CCUS value chain, and interact with many different factors e.g. trust
- Narratives are important influencers of public perception and critical attitudes towards CCUS
- Central and Eastern Europe
 - Dependent on heavy industry, with important CO₂ storage potential
 - Traditionally less engaged with climate change and less trusting of authorities
 - Public awareness of CCUS is extremely low
 - Some failed project attempts and social resistance
 - Parallels to other exploitations of subsurface
- Recommendations
 - New evaluations of public awareness and perception of CCUS
 - Clear and consistent messaging across authorities
 - Acknowledgment of local context and rules/guidelines for project developers on community engagement
 - Dialogue and transparency on costs, benefits and risks
 - Further social science research

Thank you!

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