Iceland Norway
Norway grants grants

BUILDING MOMENTUM
FOR THE LONG-TERM CCS DEPLOYMENT
IN THE CEE REGION

CCS4CEE - Building momentum for CCS deployment in the CEE region

Hanna Biro (Bellona Europa)

13 September 2023, CCS4CEE Final Regional Conference, Prague

















Bellona Europa is an independent non-profit organisation that meets environmental and climate challenges head on. We are solutions-oriented and have a comprehensive and cross-sectoral approach to assess the economics, climate impacts and technical feasibility of necessary climate actions. To do this, we work with civil society, academia, governments, institutions, and industries.

Our topics and work areas

Industry

- CCS
- Hydrogen use
- Circularity
- CO₂ infrastructure

Sustainable Finance

- Private/public funding
- Public procurement
- Competitiveness
- Greenwashing

Energy Systems

- Hydrogen production
- Grids (electrification)

Cities and Transport

- Construction
- Waste incinerators
- Fuels

Carbon Accounting

- CDR
- Climate impact of circular economy
- Green claims





About the CCS4CEE project

WP3

Assessment of current state, past experiences and potential of CCS deployment in CEE region

- Analytical reports, focusing on the current state, past experiences and potential for CCS deployment in the target countries.
- Stakeholder engagement events (workshops and seminars)

WP4

Developing policy roadmaps for national CCS deployment and regional cooperation

- Integrated policy roadmap prepared based on inputs delivered by partners
- · Stakeholder events focusing on policy roadmaps (workshops and seminars)

WP5

From roadmaps to implementation: supporting the development of flagship CCS initiative in the CEE

- · Networking and capacity-CCS initiatives in target
- Setting up a dedicated platform to ensure that the network will last beyond the

- WiseEuropa (PL) Lead partner
- Bellona Expert partner
- CIVITTA (LV)
- Energy Policy Group (RO)
- **EUROPEUM Institute for European** Integration (CZ)



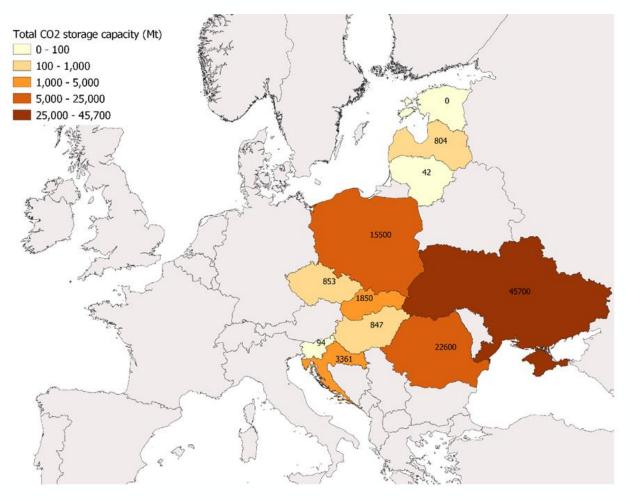


Experience with Carbon Capture and Storage in the CEE region

- History of academic research
- Experience with international research projects
- Experience with CO2-EOR and -EGR in Hungary, Romania and Croatia
- Experience with CCU
- CCS testing and demonstration projects (abandoned)



CO2 storage potential in CEE (indicative)

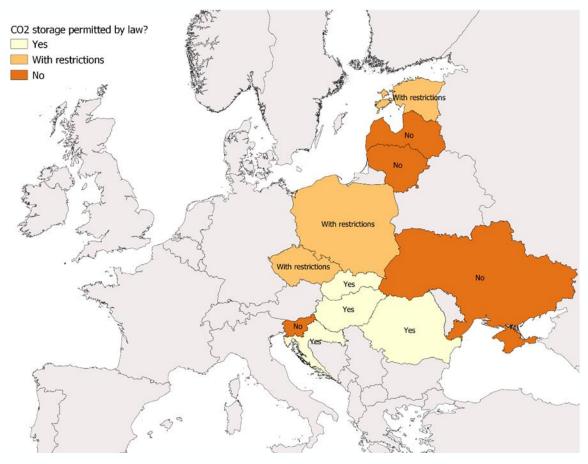


- Total storage (indicative): ca. 92 Gt CO2
- For comparison:

CEE (incl. Ukraine) CO2 emissions in 2019: < 1Gt CO2



CCS-relevant regulations and policies



- Regulatory environments of partner countries vary, particularly on CO2 storage and transportation
- Ban on storage in some countries (despite including CCS in their long-term strategies)
- Long-term national strategies and plans rarely mention CCS
- High costs and low maturity associated with CCS in government plans
- Perceived as a transition solution only

Source: EPG (for the CCS4CEE WP3 summary report)



Public support

- lack of knowledge about CCS
- attitudes towards climate action in partner countries are also less favourable than in the rest of EU countries
- history of opposition to other similar projects or even CCS projects



CEE stakeholders perception

- Stakeholders are cautious about CCS
 - high costs
 - lack of clear government support and financing
 - challenging administrative procedures
 - issues related to risks of CO2 leakage from geological storage, as well as the complexity of the required storage infrastructure
- Preference for CCU (including CO2-EOR) over CCS
- Importance of regional and inter-sectoral cooperation



CCS deployment roadmaps for **CEE** – our key recommendations

Create national CCS platforms, and join or increase engagement in European and international ones
Include CCS in national and sectoral decarbonisation strategies
Allocate public finance to CCS deployment from pilot projects to their industrial scale-up
\underline{Y}
Identify industrial clusters, potential transport networks and storage sites to create CCS hubs
Seek cross-sectoral and regional cooperation opportunities
Put in place a regulatory framework that removes obstacles and inconsistencies across legislation
Engage with local communities and other stakeholders to build public support for CCS



CCS projects in CEE timeline – ca. 5 Mtpa of CO2 captured and stored by 2030

Go4ECOPlanet & ECO2CEE (PL)

3 Mtpa

CO2NTESSA +
Geothermal
CCS Croatia
(HR)
0.7 Mtpa

2027

2028

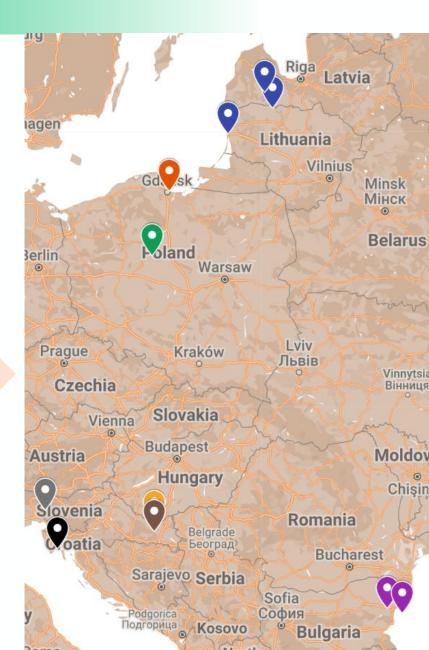
2029

2030

ANRAV (BG)
0.8 Mtpa

KOdeCO net zero (HR) 0.4 Mtpa Baltic CCS Consortium (LV, LT)

Salonit Anhovo (SL) 0.5 Mtpa



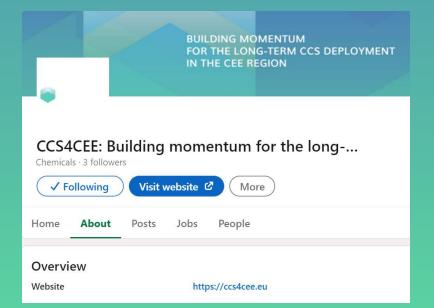




Building momentum for the long-term CCS deployment in the CEE region

Learn More







Thank you!

Contact details:

Hanna Biro Policy Advisor Bellona Europa hanna@bellona.org