

ERCST Reflection Note

2022 CCUS Forum: An overview

1. Introduction

After last year's first meeting of the Carbon Capture, Utilisation and Storage Forum (CCUS Forum) in late October, the European Commission hosted the second high-level meeting on the 27th and 28th of October in Oslo. It was organised in cooperation with of the Ministry of Petroleum and Energy of Norway.

The Forum aims to bring together not only stakeholders directly involved in the value chain of CCUS and its deployment, but also all interested parties, including representatives of Member States and third countries, NGOs and academia. It is a meeting during which common but also sectoral issues can be discussed, as well as a place to share knowledge by learning from best practices and actors already active on the ground.

The discussions held during the 2021 CCUS Forum focused mainly on five aspects: how to build political momentum for CCUS; why CCUS is an essential technology to decarbonise economies; what are the potential applications of CCUS in the industry; how to scale up the CCUS technology deployment; and what are the key issues for the wide deployment of this technology.

Two elements were strongly emphasised. Firstly, the need to have a diversified approach in reaching the net zero emissions target, which translates into the necessity to include CCUS technologies in the decarbonisation policies. Secondly, the importance of funding the technology deployment, including public financial support.

The 2021 CCUS Forum led to the creation of three working groups dedicated respectively to the Strategic Vision for CCS and CCU, the CO₂ Infrastructure and the CCUS Industrial Partnership, which worked together to prepare the 2022 conversation.

2. Positive outcomes of the 2022 CCUS Forum

The first and probably most important outcome of the Forum is the Commission's commitment to issue a communication in 2023 setting out the strategic vision for CCUS, which can enable real change in this area.

The private sector was able to demonstrate its interest and support through concrete actions towards the EU climate goal of achieving net zero emissions by 2050. It also pointed out the role that the CCUS technology could play in the post-2050 scenario of negative emissions.

Indeed, many projects are already under development and are planned to become operational before 2030, some even before 2025, across the whole European Continent, from the North Sea to the southern countries. Some examples are Pycasso in the Pyrenees, Porthos and Aramis in the Netherlands, Antwerp@C in Belgium and Longship and Northern Lights in Norway. However,

projects are also being negotiated in other countries which have now integrated CCUS plans in their national strategies, namely Croatia, Bulgaria, and Greece¹.

Another major outcome of the Forum is the presentation of the drafts of two papers prepared by the Strategic Vision for CCS and CCU and the CO₂ Infrastructure working groups.

The main finding of the paper on the strategic vision can be summarised as “no CCUS, no Green Deal”. It is based on the idea that CCUS technology is fundamental in achieving the EU climate goals and avoiding significant exposure to carbon pricing derived from other policies. This becomes especially important considering the revisions of the EU ETS and the introduction CBAM, which will lead to a phase out of free allocation.

In this context, the Commission is called to play a coordinating role at EU and Member State level to ensure the acceleration of CCUS deployment in various ways and with various instruments, including clear communication, setting concrete targets, creating a transparent and predictable regulatory framework, and increasing funding for these projects.

The second draft paper focuses on the CO₂ transport and storage infrastructure, which must be robust, non-discriminatory, open-access and cross-border.

After identifying the main technical, regulatory, and economic challenges, recommendations have also been advanced. Among them, there is the need of standardisation in the CO₂ specification to achieve cost effectiveness and interconnections of infrastructures. Also, risk-sharing and transfer of liabilities between the different operators that are involved in the CCUS deployment need to be addressed, as well as the creation of a regulatory framework for the transport infrastructure due to its cross-border and open-access nature.

3. What is still missing?

Participants to the Forum were vocal on a few issues that are yet to be addressed in the EU landscape of CCUS technology.

The main issue that needs to be solved is the so-called ‘chicken and egg’ problem. It refers to the fact that companies are not investing in CO₂ capturing technology until the infrastructure for transportation and storage is ready, claiming that, otherwise, they will be capturing CO₂ without any possibility for storage. Vice versa, players from the CCUS infrastructure sector claims that they cannot build such infrastructure without knowing in advance the demand and the related capacity needed.

The Commission has been asked to support the development of a CCUS value chain by increasing support through public funding on the one hand, and by generating revenue streams for the private and financial sectors on the other hand.

¹ A list of CCUS projects in Europe is available at <https://iogpeurope.org/wp-content/uploads/2022/01/Map-of-EU-CCS-Projects-January-2022.pdf> (January, 2022).

Currently, the United States serve as a reference model to the CCUS investors in the EU: the recently adopted Inflation Reduction Act will increase the tax credit for DAC projects to US\$180².

Public awareness and acceptance are still considered a barrier to the full deployment of CCUS.

There is a lack of understanding on how this technology works and whether it is safe or not. Also, currently there is a political focus on emission reduction policies and technologies, and CCUS technologies are not yet seen as a priority in achieving climate neutrality by compensating for residual emissions for those sectors that will find it harder to decarbonise due to a lack of alternative technology and solutions.

During the 2022 Forum, the team involved in the Pycasso project demonstrated how it was able to increase public acceptance through a 2-year engagement process based on constant consultation with local civil society.

Legislation is also needed to reduce barriers blocking ramping up CCUS technologies. In addition to financing, this refers to the role that regulations can play in de-risking investments in CCUS projects. These risks are related not only to the stability of the regulatory framework, but also to volume – not knowing the capture capacity that will be achieved and storage capacity that will be available –, price – in terms of revenues but also of carbon pricing –, and public acceptance.

There has been a clear support of CCUS stakeholders for creating an industrial partnership and the relevant working group will continue its engagement to make a recommendation in this area by the end of the year. Moreover, creating a partnership remains an important instrument to catalyse achieving the full potential of CCUS technologies³.

4. Conclusions

The second meeting of the CCUS Forum achieved its objective of maintaining the political momentum started in 2021 regarding CCUS by bringing the most pressing issues for stakeholders into the spotlight.

Nevertheless, a long-term political impetus is needed, and there should be a clear strategy at EU level. There are positive signs in this direction:

- The Commission plans to present a communication on the strategic vision for CCS and CCU in 2023. This means that an action programme for CCUS will finally be designed.
- The Commission is considering setting up a new working group to contribute to the drafting of this communication, while keeping those on infrastructure and industrial partnership still in place to carry further tasks.

² A deeper analysis of the Inflation Reduction Tax (IRA) is available at: <https://www.whitecase.com/insight-alert/inflation-reduction-act-offers-significant-tax-incentives-targeting-energy-transition>

³ For more details, see ERCST paper on industrial partnerships, available at: <https://ercst.org/industrial-partnership-for-ccus/>

- The working group on Industrial Partnership is expected to finalise its recommendations by the end of the year and present it to the Commission.
- The CO₂ Infrastructure working group will work on a report on the infrastructure to be ready in the first quarter of 2023. The working group is ready to assist the Commission in revising the guiding documents of the CO₂ storage directive.