



Brussels, 30.11.2022
SWD(2022) 378 final

COMMISSION STAFF WORKING DOCUMENT
EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT REPORT

Accompanying the document

Proposal for a Regulation of the European Parliament and of the Council
establishing a Union certification framework for carbon removals

{COM(2022) 672 final} - {SEC(2022) 423 final} - {SWD(2022) 377 final}

Limiting the global average temperature increase to below 1.5° Celsius will require deep cuts in global GHG emissions throughout the forthcoming decades. To achieve this, first we need to improve the efficiency of our buildings, transport modes and industries, to move to a circular economy, and to massively scale up renewable energy. Second, we need to recycle carbon from waste streams, from sustainable sources of biomass or directly from the atmosphere, to use it in place of fossil carbon in the sectors of the economy that will inevitably remain carbon dependent, for instance through carbon capture and use (CCU) and sustainable synthetic fuels. In parallel, as also underlined by the IPCC, increasing amounts of CO₂ will have to be **captured and removed each year from the atmosphere** by carbon farming and industrial removal activities to reach the 2050 climate neutrality goal set out in the European Climate Law¹. This objective requires that both natural ecosystems and industrial solutions should contribute to removing several hundred million tonnes of CO₂ per year from the atmosphere. To this end, the Commission Communication on Sustainable Carbon Cycles stresses the importance of enabling a business model that rewards land managers for carbon sequestration in full respect of ecological principles (**‘carbon farming’**), and of creating an **EU internal market for capture, use, storage and transport of industrial CO₂** through innovative technologies.

In this context, the present initiative introduces a regulatory framework for the certification of carbon removals. A large majority (89%) of the stakeholders that replied to the public consultation (which received 400 replies and 140 position papers) agreed that “that establishing a robust and credible certification system for carbon removals is the first essential steppingstone towards achieving a net contribution from carbon removals in line with the EU climate-neutrality objective”. This impact assessment report assesses policy options for such EU certification framework to address three main problems impacting the future development of carbon removals.

The first problem is the **difficulty to assess and compare the quality of carbon removals**, which creates significant search costs for potential financiers of carbon removals. This is a typical ‘market failure’ and creates a risk that financial support goes to carbon removal activities that cannot be relied upon as effective mitigation actions. This problem has two drivers. The first driver is the fact that certification of carbon removals is much less common than that of emission reductions; it also involves several methodological challenges, and different certification schemes propose different methodologies to quantify total and additional carbon removals, to incentivize long-term storage of carbon, and to encompass broader sustainability impacts (e.g. biodiversity) of the carbon removal activity. The second driver is that carbon removal solutions (i.e. solutions storing carbon in geological formations, such as bioenergy with carbon capture and storage or direct air carbon capture and storage, carbon farming, and carbon storage products) pose different challenges for certification and are very heterogeneous in terms of their maturity, cost-effectiveness and related monitoring costs.

To address this problem, this initiative aims to guarantee the quality of all carbon removals certified in the EU through certification methodologies that are tailored to the specific circumstances of different carbon removal solutions. To this end, the Commission is proposing an EU quality standard for the certification of carbon removals along four quality criteria (under the acronym of **QU.A.L.I.TY**): **QU**antification, **A**dditionality and baselines, **L**ong-term storage and sustainabi**ITY**. The proposed Regulation indicates best practices for each of these criteria building on relevant legislation, while recognising that the essential elements to address the QU.A.L.I.TY criteria will differ across carbon removal solutions. In a second step, detailed certification methodologies to implement the QU.A.L.I.TY criteria across the different carbon removal activities will have to be developed. In this step, specific rules will be tailored to the characteristics of the different types of carbon removal activities: for instance, the rules will recognise the strong guarantees for permanence offered by solutions storing carbon in geological formations, while clarifying minimum sustainability requirements for carbon farming

¹ Regulation (EU) 2021/1119, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1119>

activities. In this respect, this Impact Assessment compares two Quality options: under the first option (option Q1), certification schemes develop methodologies in line with the EU Q.U.A.L.I.T.Y criteria and submit them for recognition to the responsible public authority; under the second option (option Q2), the Commission develops the methodologies in close consultation with an expert group.

The analysis in this Impact Assessment concludes that option Q2 has the largest potential to guarantee the quality of carbon removal certificates and to improve their comparability, while minimising the administrative costs of developing or approving methodologies for certification schemes.

The second problem is that **many stakeholders do not trust carbon removal certificates** because certificates may be generated through unreliable certification processes which certify activities that are not delivering true climate and sustainability benefits. To tackle this problem, certification schemes should put in place transparent and robust rules and procedures to mitigate the risks that the certification process is not able to detect low-quality removals, that the carbon removal projects are not actually delivering the removals as planned, and that the same project is certified twice, or that the same certificate is used twice.

The third problem is that **the providers of carbon removals face barriers to access finance**. This is driven by the fact that there is a wide variety of ways to use carbon removal certificates (e.g. voluntary carbon markets, public funding, inclusion of sustainability in corporate reporting and in contractual arrangements, voluntary labels). This diversity creates transaction costs for those that want to have their carbon removal activity certified, such as search costs (the time and effort spent to understand the quality of the certification procedures of a given scheme) and switching costs (the cost of trying to raise other complementary or alternative types of funding, which is likely to require changing their operations and providing a different set of evidence and information).

To address the second and the third problems, the certification schemes should comply with three Transparency requirements: scheme management (certification schemes should be operated on the basis of reliable and transparent procedures, e.g. internal management and monitoring, complaints and appeal management, stakeholder consultation, transparency and publication of information, etc.); Independent verification (the compliance of the carbon removals with the Q.U.A.L.I.T.Y criteria should be verified by third-party auditors); and full disclosure (all information on the certified carbon removals should be publicly available and traceable through public registries). In line with these Transparency criteria, a process to recognise certification schemes is set out and only recognised certification schemes can be used by the providers of carbon removals to demonstrate compliance with the Q.U.A.L.I.T.Y criteria and the relevant certification methodologies.

In this context, the Impact Assessment compares two Governance options as to who would be responsible for recognising certification schemes: the Member States (option G1) or the Commission (option G2). The analysis concludes that option G2 performs best in terms of guaranteeing a robust and harmonised certification process and promoting the internal market for carbon removal certification, while minimising the administrative costs for public authorities.

In conclusion, the preferred policy option is one where the Commission: (i) develops certification methodologies, in consultation with experts and stakeholders; and (ii) harmonises the implementation of the certification framework and of the Q.U.A.L.I.T.Y criteria through recognised certification schemes.