



Brussels, 30.11.2022
COM(2022) 672 final

2022/0394 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

establishing a Union certification framework for carbon removals

{SEC(2022) 423 final} - {SWD(2022) 377 final} - {SWD(2022) 378 final}

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

• Reasons for and objectives of the proposal

Limiting the global average temperature increase to below 1.5 °Celsius (C) will require deep cuts in global greenhouse gas (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, increasing amounts of carbon dioxide (CO₂) will have to be captured and removed each year from the atmosphere by carbon farming and industrial removal activities or projects to compensate hard-to-abate emissions from sectors like agriculture, cement, steel, aviation or maritime transport, with the view to reach climate neutrality.

At a global scale, the latest report¹ by the International Panel on Climate Change (IPCC) point towards a decreasing likelihood of limiting global warming to 1.5°C unless rapid GHG emission reductions occur. The IPCC report clearly states that ‘the deployment of carbon dioxide removal to counterbalance hard-to-abate residual emissions is unavoidable if net zero CO₂ or GHG emissions are to be achieved’. This will mean the large-scale deployment of sustainable activities for capturing CO₂ from the atmosphere and durably storing it in geological reservoirs, terrestrial and marine ecosystems, or products.

The European Climate Law² provides for the EU to become climate neutral by 2050. This requires that GHG emissions are significantly reduced, and that the unavoidable emissions and removals should be balanced within the European Union at the latest by 2050, with the aim to achieve negative emissions thereafter. To achieve this objective, both natural ecosystems and industrial activities should contribute to removing several hundred million tonnes of CO₂ per year from the atmosphere. Today and with current policies, the EU is not on track to deliver these quantities: carbon removals in natural ecosystems have been decreasing in recent years, and no significant industrial carbon removals are currently taking place in the Union.

In line with the scenarios assessed by the IPCC, the European Commission has announced in the Circular Economy Action Plan³ from March 2020 that it will develop an effective certification framework for the certification of carbon removals to incentivise the uptake of carbon removal and to increase circularity of carbon, in full respect of the biodiversity and the zero-pollution objectives.

The main objectives of this initiative are: (i) to ensure the high quality of carbon removals in the EU, and (ii) to establish an EU governance certification system to avoid greenwashing by correctly applying and enforcing the EU quality framework criteria in a reliable and harmonised way across the Union. These actions are necessary to trigger action in the

¹ IPCC Working Group III (2022), Technical Summary. In: Climate Change 2022: Mitigation of Climate Change. Sixth Assessment Report.

² Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (OJ L 243, 9.7.2021, p. 1).

³ COM(2020) 98 final.

deployment of carbon removals and to build any future policy in this area, in view of the need to remove hundreds of million tonnes of CO₂ per year. This will support the achievement of the 2050 climate neutrality objective set in the European Climate Law, as well as the other environmental objectives of the European Green Deal Communication⁴.

- **Consistency with existing policy provisions in the policy area**

Under the proposal for amending the Regulation on Land Use, Land Use Change, and Forestry (LULUCF)⁵, the European Commission proposed – for the first time – a separate land-based net removals target of -310 million tonnes of CO₂ -equivalent by 2030. The EU-wide target is to be implemented through binding national targets for the LULUCF sector, requiring Member States to step up ambition for their land use policies. This proposal enables to channel more effective and result-based support toward carbon farming activities that can contribute to the achievement of this target. The Commission has also proposed to increase the size of the Innovation Fund⁶, which is financed by the revenues from the EU Emissions Trading System (EU ETS)⁷, thereby helping businesses invest in innovative clean technologies, including those generating carbon removals.

The 2021 Commission’s Communication on Sustainable Carbon Cycles⁸ stresses the importance of enabling a business model that rewards land managers for carbon sequestration in full respect of ecological principles (i.e. ‘carbon farming’), and of creating an EU internal market for capture, use, storage and transport of CO₂ through innovative technologies. The communication also defines an action plan to achieve the following aspirational goals for carbon removals: by 2028, all land managers should have access to verified emission and removal data to measure carbon farming practices, and all CO₂ captured, transported, used and stored through industrial activities should be reported and accounted; by 2030, carbon farming approaches should contribute to reaching the LULUCF target of -310 Mt CO₂ eq net removals; and industrial technologies should remove annually at least 5 Mt CO₂ eq by 2030.

This proposal is also in line with the final Proposals of the Conference on the Future of Europe⁹, in particular Proposal 1 that explicitly aims to ‘Introduce a certification of carbon removals, based on a robust, solid and transparent carbon accounting’ (measure 5). Furthermore, the 2022 Communication on Greening the Commission¹⁰ announced that, in addition to the ambitious set of GHG reduction actions, the Commission will have to rely also on carbon removal to neutralise unavoidable emissions and achieve net zero GHG emissions by 2030.

The certification framework described in this proposal is designed to build on the following existing climate change legislation:

- The directive on the geological storage of CO₂, called CCS Directive¹¹, establishes the overall legal framework for the environmentally safe geological storage of CO₂.

⁴ COM(2019) 640 final

⁵ COM(2021) 554 final.

⁶ C(2019) 1492 final.

⁷ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).

⁸ COM(2021) 800 final.

⁹ Conference on the Future of Europe, Report on the final outcome, May 2022.

¹⁰ C(2022) 2230 final

¹¹ Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European

Activities storing CO₂ from an ETS installation in a storage site permitted under the CCS Directive are explicitly included in the EU ETS Directive and EU ETS allowances must be surrendered in the event of CO₂ leakages. The proposed certification framework will ensure that the quantification of carbon removals for industrial activities such as bioenergy-based CCS (BECCS)¹² and Direct Air Carbon Capture and Storage (DACCS) is in line with the rules set out in the Commission Implementing Regulation (EU) 2018/2066¹³ on the monitoring and reporting of GHG emissions under the ETS and the detailed EU methodologies developed by the Commission¹⁴ for the quantification of GHG emission avoidance of BECCS and DACCS projects under the Innovation Fund¹⁵.

- For carbon farming and carbon storage products, the LULUCF Regulation¹⁶ provides a blueprint for accurate monitoring and reporting of carbon removals in line with IPCC guidelines, and in synergy with policies on biodiversity, zero pollution, renewable energy and climate adaptation. The rules laid down under the LULUCF Regulation encourage monitoring land use in a geographically-explicit way, at low cost and in a timely fashion, for example through digital databases, Geographic Information Systems (GIS) and remote sensing, including the Copernicus Sentinel satellites and services (e.g. Climate and Land Services), or commercially available services.
- **Consistency with other Union policies**

The EU certification framework on carbon removals will either build on or play an important role to enable the following Union policies:

- The proposed Nature Restoration Law¹⁷ sets out the goal that 20% of the EU's land and sea should be covered by restoration measures by 2030 and that all ecosystems in need of restoration should be covered by restoration measures by 2050. There are many synergies among carbon removal activities, particularly carbon farming, and nature restoration measures. The proposed certification framework for carbon removals will contribute to achieve the restoration targets and fulfil the obligations set out in the Nature Restoration Law. For instance, carbon farming activities that enhance carbon storage can contribute to meeting the obligation to ensure an increasing trend at national level of the stock of organic carbon in forest ecosystems and in cropland mineral soils in agricultural ecosystems. They can also support the obligation to put in place restoration measures for organic soils in agricultural use

Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 (OJ L 140, 5.6.2009, p. 114).

¹² For BECCS deployment, safeguards are necessary to take into account the limits and availability of sustainable biomass in order to avoid excessive demand of biomass for energy with negative effects on carbon sinks and stocks, biodiversity, air quality and the bioeconomy.

¹³ Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012 (OJ L 334, 31.12.2018, p. 1).

¹⁴ Call for proposals Annex C: Methodology for calculation of GHG emission avoidance.

¹⁵ https://climate.ec.europa.eu/eu-action/funding-climate-action/innovation-fund_en

¹⁶ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1).

¹⁷ COM(2022) 304 final.

constituting drained peatlands. The proposed Nature Restoration Law and this proposal will therefore reinforce each other, contributing to both climate and biodiversity policies.

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- The Common Agricultural Policy (CAP) provides for support to farmers who commit to undertake specific environmental and climate practices or investments. This policy also includes some environmental and climate conditions (called Good Agricultural and Environmental Conditions, GAECs) to be respected by farmers when receiving CAP income support. These conditions go beyond statutory requirements. Certain conditions are relevant for sequestration and carbon protection in soil such as in grassland and peatland. In addition, the CAP can help with the uptake of certification by covering upfront investments and by promoting relevant practices at farm level. The EU carbon removal certification framework will contribute to improving the GHG quantification of supported practices and GHGs inventories of national land sector. Through voluntary markets development it can ensure longer-term protection of carbon stocks and actions in land not supported by the CAP. Public certification schemes, developed by Member States, could apply for EU recognition under this proposal in order to implement the EU carbon removal certification framework, including the certification methodologies laid down in this proposal. Furthermore, this proposal will allow disclosing non-CO₂ emission reductions as co-benefits of carbon removals.
- The Renewable Energy Directive¹⁸ includes a set of sustainability criteria for bioenergy, which are implemented by either national competent authorities or private certification schemes recognised by the Commission. These schemes could potentially certify also the compliance of carbon removal activities with the quality criteria for carbon removals presented in this proposal.
- The EU Forest Strategy¹⁹ sets out the policy framework to deliver growing, healthy, diverse and resilient EU forests, which contribute significantly to our biodiversity ambition, increase removals by natural sinks, secure livelihoods in rural areas and beyond and support a sustainable forest bioeconomy that relies on most sustainable forest management practices.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

• Legal basis

The proposal is based on Article 192(1) of the Treaty on the Functioning of the European Union (TFEU), which gives the Union the right to act in order to achieve objectives of its policy on the environment. The objectives of the Union policy on the environment as defined in Article 191(1) of the TFEU include, inter alia, preserving, protecting and improving the quality of the environment; a prudent and rational utilisation of natural resources and promoting measures at international level to deal with regional or worldwide environmental problems, in particular combating climate change.

¹⁸ Directive 2018/2001/EU.

¹⁹ COM/2021/572 final

- **Subsidiarity (for non-exclusive competence)**

Climate change is a trans-boundary problem. Its effects are global, irrespective of the location of the sources of greenhouse gas emissions. Therefore, these challenges cannot be solved by national or local action alone as this is unlikely to lead to optimal outcomes. Coordination at the European level enhances climate action and can supplement and reinforce national and local action effectively; EU action is justified on grounds of subsidiarity, in line with Article 191 of the Treaty on the Functioning of the European Union.

A European framework would be more appropriate than national initiatives in addressing the difficulty to assess the quality of carbon removals. Such framework would create a level-playing field within the internal market for the certification of carbon removals, enhancing comparability and trust. A patchwork of national initiatives in this area would only exacerbate the problem rather than solving it.

- **Proportionality**

This proposal complies with the proportionality principle because it does not go beyond what is necessary in order to achieve the objectives of establishing a Union certification framework for high quality carbon removals. It provides for quality criteria for carbon removals, the necessary rules and procedures for certifying and verifying carbon removals and a framework for recognition of private and public certification schemes.

- **Choice of instrument**

The objectives of the present proposal can best be pursued through a Regulation. This will ensure direct and uniform applicability of the provisions in the Union at the same time. Requirements are placed on operators of voluntary certification schemes, on Member States in view of recognition of public certification schemes and on the Commission regarding reporting and review.

3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS

- **Ex-post evaluations/fitness checks of existing legislation**

Not Applicable

- **Stakeholder consultations**

In line with the Better Regulation guidelines, a number of consultation activities took place:

- An online conference on Sustainable Carbon Cycles which took place on 31 January 2022;
- A call for evidence running from 7 February until 2 May 2022, which received 231 responses;
- An open public consultation running from 7 February until 2 May 2022, which received 396 responses.

Overall, the public consultation activities demonstrated strong general support for a regulatory initiative covering the creation of a certification framework for carbon removals. Most stakeholders advocated for the initiative to cover a wide range of carbon removals options and to take into account aspects such as: ensuring precise, accurate and timely measurement for removals; ensuring that strong action to reduce emissions is not undermined by shifting focus

on carbon removals; providing sufficient guarantees for the duration of carbon storage and the prevention of reversals.

The main criteria that stakeholders considered important for carbon removals included the robustness of monitoring, reporting and verification aspects, the potential for deployment at large scale, technical readiness and economic feasibility, and the potential for environmental co-benefits. The majority of respondents agreed that establishing a robust and credible certification system for carbon removals was the first essential stepping stone towards achieving a net contribution from carbon removals in line with the EU climate-neutrality objective.

Respondents indicated that the key objectives for the certification of carbon removals should be: allowing comparability and competition between different carbon removals activities; increasing the transparency and levelling the playing field of voluntary carbon markets; and, providing better public incentives for nature-based and industrial carbon removals within EU and national funding programmes.

According to the majority of respondents, the role of the EU should be to establish comprehensive quality requirements for carbon removals, ensuring correct quantification of carbon removals, additionality, long-term storage and environmental sustainability. A summary of the findings from the stakeholder consultations are presented in Annex 2 of the Impact Assessment to this Regulation.

- **Collection and use of expertise**

An external consortium of experts was tasked to carry out a technical assistance study to inform the preparation of the proposed Regulation on carbon removals and the related impact assessment. The study delivered a review of existing mechanisms and schemes for the certification of carbon removals and a synoptic assessment of the various carbon removal activities, including permanent removal, carbon storage products and carbon farming. On behalf of the Commission, the external consortium organised a number of outreach events, including the Conference on Sustainable Carbon Cycles, and helped assessing the replies to the stakeholder consultation. Finally, the technical assistance study provided part of the data underpinning the analysis of the policy options set out in the impact assessment.

- **Impact assessment and opinion of the Regulatory Scrutiny Board**

The Impact Assessment accompanying this proposal assessed different policy options 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’, which 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:

1. The certification of carbon removals is much less common than that of emission reductions, and it involves several methodological challenges. Different certification schemes propose different methodologies to quantify total and additional carbon removals, to incentivise the long-term storage of carbon, and to encompass broader sustainability aspects such as the environmental impacts (e.g. biodiversity loss, pollution etc.) of the carbon removal activity.
2. Carbon removal activities (i.e. permanent removal, carbon storage products and carbon farming) are very heterogeneous in terms of their maturity, cost-effectiveness and related monitoring costs, and pose different challenges for certification.

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 activities.

To this end, this initiative proposes an EU certification framework for carbon removals based on four quality criteria (hereafter called QU.A.L.ITY), indicating how to ensure QUantification, Additionality and baselines, Long-term storage and sustainabiliTY. The Impact Assessment identifies a number of best practices for each of those QU.A.L.ITY criteria, while recognising that the certification approach for each criterion will differ across carbon removal activities.

In a second step, detailed certification methodologies to implement the QU.A.L.ITY 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 enhancing co-benefits for carbon farming activities. In this respect, the Impact Assessment compares two Quality options:

- Option Q1: certification schemes develop methodologies in line with the QU.A.L.ITY criteria and submit them for recognition to the responsible public authority;
- Option Q2: the Commission develops the methodologies in close consultation with an expert group.

The analysis concludes that option Q2 has the largest potential to guarantee the quality of carbon removals and to ensure their comparability, while minimising the administrative costs of developing or approving detailed certification methodologies.

The second problem is that many stakeholders do not trust carbon removal certificates because certificates may be generated through non-transparent and 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 activities are not actually delivering the removals as planned, and that the same activity 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 problem is driven by the fact that there is a wide variety of ways to use carbon removal certificates (e.g. public funding, corporate sustainability reporting, eco-labels, voluntary carbon markets etc.). 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, certification schemes should comply with harmonised certification requirements to ensure transparency and build trust:

1. 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.);

2. Independent verification: the compliance of the carbon removals with the QU.A.L.I.TY criteria should be verified by third-party auditors; and,
3. 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 operators (i.e. owners of carbon removal activities) to demonstrate compliance with the QU.A.L.I.TY 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 the QU.A.L.I.TY criteria through recognised certification schemes.

In the Impact Assessment, the Commission also assessed the consistency of the proposal with the objectives set out in the European Climate Law, as provided for in Article 6(4) of the European Climate Law. The Commission found that carbon farming approaches can help to achieve the separate 2030 target proposed for the LULUCF sector with the Fit-for-55 legislative package (-310 Mt CO₂ eq), therefore exceeding the contribution of LULUCF carbon removals to the -55% economy-wide target established in the European Climate Law (capped at -225 Mt CO₂ eq). The European Climate Law also includes a target for the Union to become climate-neutral by 2050 and to achieve negative emissions thereafter, but the Union needs to increase the uptake of carbon removal activities to achieve this objective. The Impact Assessment analyses policy options to address the barriers that undermine the uptake of effective carbon removal activities, that should not deter action to reduce greenhouse gas emissions.

The Regulatory Scrutiny Board provided a positive opinion on the Impact Assessment and provided a list of recommendations to improve the report in view of better demonstrating that the absence of a reliable certification framework represents the main obstacle to the development of carbon removal activities as well as of better presenting transparently all policy choices regarding the methodology and governance.

The following aspects were consequently integrated in the finalised version of the impact assessment report:

- in the introduction, the context of the initiative (i.e. role of carbon removals in the 2050 climate neutrality objective and in the current policy baseline) and the voluntary nature of the initiative were made clearer;
- in the problem definition, new references have been added to confirm the existence and the scale of the identified problems (in particular the lack of trust) and to highlight the importance of internationally harmonising framework in the views expressed by stakeholders;
- in the section about objectives, it was clarified that the shortlisting of the four QU.A.L.I.TY criteria follows a general consensus about what constitutes high-quality

certification according to most existing certification methodologies, and the presentation of the criteria in the section describing the policy options now includes more arguments from the dedicated annexes;

- to take into account the voluntary nature of the framework, several clarifications were added (e.g. the objective of “level-playing field” has been rephrased as “harmonisation”);
- the section about discarded policy options better explains why a mandatory use of the certification framework policy was discarded;
- the section on the assessment of the impacts cites the voluntary nature as a risk that could undermine the success of the initiatives, and measures to mitigate this risk;
- the assessment of policy options better identifies the barriers to upscale of carbon removal activities, and explains how the certification framework will address these barriers; this section also clarifies the uncertainty related to the qualitative statements about expected benefits and costs;
- the section on the one-in-one-out approach has been moved from an annex to the main text;
- the section on monitoring and evaluation of the initiative includes more elaborated operational objectives.
- **Regulatory fitness and simplification**

Not Applicable

- **Fundamental rights**

Not Applicable

4. BUDGETARY IMPLICATIONS

Major budgetary implications for the Union concern the preparation of the non-legislative acts and operation of the Expert Group on Carbon Removals.

The proposal provides for a number of delegated and implementing acts to be prepared in parallel following the entering into force of the proposed Regulation. Most importantly, it will be necessary to adopt delegated acts setting out the certification methodologies for different carbon removal activities (e.g. for permanent removal, carbon farming and carbon storage products).

For the preparation of these highly technical non-legislative acts, the Commission will be assisted by an Expert Group on Carbon Removals. The Group will include approximately 70 members and could involve a number of sub-groups, including additional expertise. It will be operated by the Commission with the help of an external contractor.

In addition, budgetary implications for Commission are associated to the recognition process of public or private certification schemes that would be responsible to implement the certification framework in one or more Member States. Budgetary implications are also foreseen for those Member States that intend to establish and operate a national certification scheme, including the supervision of independent certification bodies and the establishment and operation of a national registry.

The legislative financial statement shows the detailed budgetary implications and the human and administrative resources required by this Proposal.

5. OTHER ELEMENTS

• **Implementation plans and monitoring, evaluation and reporting arrangements**

In accordance with the Better Regulation guidelines published in November 2021 and in particular tool 38, the Commission will draw up an implementation strategy after the legislative proposal has been adopted by the co-legislators. It will present the different compliance promotion tools to be used and will include aspects related to digital implementation.

• **Detailed explanation of the specific provisions of the proposal**

The provisions and structure of the proposed Regulation corresponds to the objective of the initiative to create a transparent and credible certification framework for carbon removals with high climate and environmental integrity, in order to support physical and legal persons that are willing to make the extra effort, beyond reducing as much as possible their GHG emission, and bring their activities to the level of sustainability, within the context of the increased climate ambition stated in the European Green Deal and the objective of the 2050 climate neutrality set out in the European Climate Law.

The key provisions of the proposed Regulation are the following:

The objective and scope of the Regulation is defined in Article 1. This proposal aims to facilitate the deployment of high quality carbon removals through a voluntary Union certification framework. This Article also defines the overall structure of the proposal, which consists of three pillars: the first sets out the four quality criteria, the cumulative compliance of which makes the carbon removals eligible for certification. The second pillar determines the key elements of the verification and certification process. The third pillar provides rules for the functioning of the certification schemes that are responsible for implementing the Union certification framework.

Article 2 provides for the key terminology necessary to complete the provisions of the proposed Regulation, in particular the definitions of carbon removals and carbon removal activity.

Article 3 identifies the two conditions for carbon removals to be eligible under the Union certification framework: first, to be generated by carbon removal activities that meet the quality criteria; and, second, to be verified by an independent certification body.

The first pillar of the proposed Regulation is defined in Articles 4 to 8. Article 4 establishes rules for the quantification of the net carbon removal benefit against a baseline, whereas Articles 5, 6 and 7 set out the quality criteria on additionality, long-term storage and sustainability of carbon removal activities. Article 8 provides the empowerment for Commission delegated acts, which will establish tailored certification methodologies for the assessment of compliance with the quality criteria. Annex I lists the elements to be included in those certification methodologies.

The second pillar of the proposed Regulation regarding the certification of compliance is set out in Articles 9 and 10.

Article 9 defines the key elements of the certification process which is composed of two steps. In an initial stage, an operator submits comprehensive information concerning the carbon removal activity and its expected compliance with the quality criteria to a certification body. The certification body carries out an audit to verify the operator's claims, issues a certification audit report and – if the quality criteria are met – a certificate.

In a second stage, the certification body carries out a re-certification audit to verify that the carbon removal activity has been implemented correctly and in full compliance with the quality criteria, and issues a re-certification audit report and an updated certificate, on the basis of which the certification scheme issues and registers the certified carbon removal units. Annex II lists the minimum information to be included in the certificate.

Article 10 sets minimum conditions for certification bodies to ensure their competence to carry out the certification audits and their independence and impartiality. It also sets an obligation for the Member States to supervise the operation of certification bodies.

The third pillar regarding the certification schemes is determined in Articles 11 to 14. Article 11 sets the obligation for operators to use certification schemes, recognised by the Commission, to demonstrate compliance with the quality criteria. This article lays down also a number of requirements for the functioning of the certification schemes, including measures to ensure the good governance, transparency, and accountability.

Article 12 imposes the obligation for certification schemes to set up and maintain public registries for evidence of carbon removal activities and carbon removal units. It is of key importance that registries use automated systems and are interoperable in order to prevent fraud and avoid double counting.

Article 13 provides the legal basis for the recognition of certification schemes through Commission decisions and Article 14 prescribes reporting requirements on certification schemes.

Article 18 provides for a review of the Regulation: for a first time three years after its entering into force and not later than by the end of 2028, and then at regular intervals after each stocktake exercised as laid down in the Paris Agreement.

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

establishing a Union certification framework for carbon removals

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee²⁰,

Having regard to the opinion of the Committee of the Regions²¹,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) Under the Paris Agreement adopted under the United Nations Framework Convention on Climate Change²² ('the Paris Agreement'), the international community has agreed to hold the increase in the global average temperature well below 2° C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5° C above pre-industrial levels. The Union and its Member States are Parties to the Paris Agreement and are strongly committed to its implementation by reduction of greenhouse gas emissions and increase in carbon removals.
- (2) At a global scale, the latest report²³ by the International Panel on Climate Change (IPCC) points towards a decreasing likelihood of limiting global warming to 1.5° C unless rapid and deep cuts in global greenhouse gas (GHG) emissions occur throughout the forthcoming decades. The IPCC report also clearly states that 'the deployment of carbon dioxide removal to counterbalance hard-to-abate residual emissions is unavoidable if net-zero carbon dioxide (CO₂) or GHG emissions are to be achieved'. This will require the large-scale deployment of sustainable activities for capturing CO₂ from the atmosphere and durably storing it in geological reservoirs, terrestrial and marine ecosystems, or products. Today and with current policies, the Union is not on track to deliver the required carbon removals: carbon removals in terrestrial ecosystems have been decreasing in recent years, and no significant industrial carbon removals are currently taking place in the Union.

²⁰ OJ C [...], [...], p. [...]

²¹ OJ C [...], [...], p. [...]

²² Approved by Council Decision (EU) 2016/1841 of 5 October 2016 on the conclusion, on behalf of the European Union, of the Paris Agreement adopted under the United Framework Convention on Climate Change (OJ L 282, 19.10.2016, p. 1).

²³ IPCC Working Group III (2022), Technical Summary. In: Climate Change 2022: Mitigation of Climate Change. Sixth Assessment Report (link).

- (3) The aim of this Regulation is to develop a voluntary Union certification framework for carbon removals, with the view to incentivise the uptake of high-quality carbon removals, in full respect of the biodiversity and the zero-pollution objectives. It is a tool to support the achievement of the Union objectives under the Paris Agreement, notably the goal of collective climate neutrality by 2050 laid down in Regulation (EU) 2021/1119 of the European Parliament and of the Council²⁴. The Union also committed to generate negative emissions after 2050. An important instrument to enhance carbon removals in terrestrial ecosystems is Regulation (EU) 2018/841 of the European Parliament and of the Council²⁵, which is currently under review. The objective of the review is to set out a Union net removals target of 310 Mt CO₂ eq by 2030, and to allocate respective targets to each Member State.
- (4) The Union certification framework will support the development of carbon removal activities in the Union that result in an unambiguous net carbon removal benefit, while avoiding greenwashing. In the case of carbon farming, such certification framework should also encourage the uptake of carbon removal activities that generate co-benefits for biodiversity, therefore achieving the nature restoration targets set out in Union law on nature restoration. The Union certification framework will be instrumental in meeting the Union climate change mitigation objectives set in international agreements and in the Union legislation.
- (5) In order to support operators willing to make additional efforts to increase carbon removals in a sustainable way, the Union certification framework should take into account the different types of carbon removal activities, their specificities and related environmental impacts. Therefore, this Regulation should provide clear definitions of carbon removal, carbon removal activities, and other elements of the Union certification framework.
- (6) This Regulation should set out the requirements under which carbon removals should be eligible for certification under the Union certification framework. To this end, carbon removals should be quantified in an accurate and robust way; and they should be generated only by carbon removal activities that generate a net carbon removal benefit, are additional, aim to ensure long-term storage of carbon, and have a neutral impact or co-benefit on sustainability objectives. Furthermore, carbon removals should be subject to independent third-party auditing in order to ensure the credibility and reliability of the certification process. Mandatory Union carbon pricing rules established through Directive 2003/87/EC of the European Parliament and of the Council²⁶ are in place which regulate the treatment of emissions from activities covered by that Directive. This Regulation should be without prejudice to Directive 2003/87/EC, except in relation to the certification of removals of emissions from sustainable biomass which are zero-rated in accordance with Annex IV thereto.

²⁴ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1).

²⁵ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1).

²⁶ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).

- (7) A carbon removal activity should result in a net carbon removal benefit showing that it delivers a positive climate impact. The net carbon removal benefit should be computed following two steps. First, operators should quantify the amount of additional carbon removals that a carbon removal activity has generated in comparison to a baseline. A standardised baseline reflecting the standard performance of comparable activities in similar social, economic, environmental and technological circumstances and geographical locations should be preferred because it ensures objectivity, minimises compliance and other administrative costs, and positively recognises the action of first movers who have already engaged in carbon removal activities. In the context of carbon farming, the use of available digital technologies, including electronic databases and geographic information systems, remote sensing, artificial intelligence and machine learning, and of electronic maps should be promoted to decrease the costs of establishing baselines and of monitoring carbon removal activities. However, where it is not possible to set such a standardised baseline, a project-specific baseline based on the operator's individual performance may be used. In order to reflect the social, economic, environmental and technological developments and to encourage ambition over time in line with the Paris Agreement, baselines should be periodically updated.
- (8) The second step for quantifying the net carbon removal benefit should consist of subtracting any increase in greenhouse gas emissions related to the implementation of the carbon removal activity. Relevant greenhouse gas emissions that should be taken into consideration include direct emissions, such as those resulting from the use of more fertilisers, fuel or energy, or indirect emissions, such as those resulting from land use change, with consequent risks for food security due to displacement of agricultural production. A reduction in greenhouse gas emissions resulting from the implementation of the carbon removal activity should not be taken into account to quantify the net carbon removal benefit, but should be considered as a co-benefit towards the sustainability objective of climate change mitigation; by being reported on the certificates, decreases in greenhouse gas emissions (like the other sustainability co-benefits) can increase the value of the certified carbon removals.
- (9) A carbon removal activity delivers a net carbon removal benefit when the carbon removals above the baseline outweigh any increase in greenhouse gas emissions due to the implementation of the carbon removal activity. For instance, in the case of activities that deliver permanent carbon storage by injecting carbon underground, the amount of permanently stored carbon should outweigh the energy-related greenhouse gas emissions from the industrial process. In the case of carbon farming, the carbon captured by an afforestation activity or the carbon kept in the ground by a peatland re-wetting activity should outweigh the emissions from the machinery used to carry out the carbon removal activity or the indirect land use change emissions that can be caused by carbon leakage.
- (10) Carbon removals should be quantified in a relevant, accurate, complete, consistent and comparable manner. Uncertainties in the quantification should be duly reported and accounted in order to limit the risk of overestimating the quantity of carbon dioxide removed from the atmosphere. Carbon removals generated by carbon farming should be quantified with a high level of accuracy to assure the highest quality and minimise uncertainties. Moreover, in order to incentivise synergies between Union climate and biodiversity objectives, enhanced monitoring of land needs to be required, thereby helping to protect and enhance the resilience of nature-based carbon removals throughout the Union. The satellite and on-site monitoring and reporting of emissions and removals need to closely reflect those approaches, and make the best use of

advanced technologies available under Union programmes, such as Copernicus, making full use of already existing tools, and ensure consistency with the national greenhouse gas inventories.

- (11) In order to ensure that the Union certification framework channels incentives toward carbon removals that go beyond the standard practice, carbon removal activities should be additional. Therefore, these activities should go beyond statutory requirements, that is, operators should carry out activities that are not already imposed upon them by the applicable law. Moreover, carbon removal activities should take place due to the incentive effect provided by the certification. Such effect is present when the incentive created by the potential revenues, resulting from the certification, changes the behaviour of operators in such a way that they engage in the additional carbon removal activity to achieve additional carbon removals.
- (12) A standardised baseline should reflect the statutory and market conditions in which the carbon removal activity takes place. If a carbon removal activity is imposed upon operators by the applicable law, or it does not need any incentives to take place, its performance will be reflected in the baseline. For this reason, a carbon removal activity that generates carbon removals in excess of such a baseline should be presumed to be additional. Hence, the use of a standardised baseline should simplify the demonstration of additionality for operators. Therefore, it should reduce the administrative burden of the certification process, which is particularly important in the case of small-scale land managers.
- (13) Atmospheric and biogenic carbon that is captured and stored through a carbon removal activity risks being released back into the atmosphere (e.g. reversal) due to natural or anthropogenic causes. Therefore, operators should take all relevant preventive measures to mitigate those risks and duly monitor that carbon continues to be stored over the monitoring period laid down for the relevant carbon removal activity. The validity of the certified carbon removals should depend on the expected duration of the storage and the different risks of reversal associated with the given carbon removal activity. Activities that store carbon in geological formations provide enough certainties on the very long-term duration of several centuries for the stored carbon and can be considered as providing permanent storage of carbon. Carbon farming or carbon storage in products are more exposed to the risk of voluntary or involuntary release of carbon into the atmosphere. To account for this risk, the validity of the certified carbon removals generated by carbon farming and carbon storage in products should be subject to an expiry date matching with the end of the relevant monitoring period. Thereafter, the carbon should be assumed to be released into the atmosphere, unless the economic operator proves the maintenance of the carbon storage through uninterrupted monitoring activities.
- (14) In addition to measures taken to minimise the risk of carbon release into the atmosphere during the monitoring period, appropriate liability mechanisms should be introduced to address cases of reversal. Such mechanisms could include e.g. discounting of carbon removal units, collective buffers or accounts of carbon removal units, and up-front insurance mechanisms. Since liability mechanisms in respect of geological storage and CO₂ leakage, and relevant corrective measures have already been laid down by Directive 2003/87/EC and Directive 2009/31/EC of the European

Parliament and of the Council²⁷, those liability mechanisms and corrective measures should apply to avoid double regulation.

- (15) Carbon removal activities have a strong potential to deliver win-win solutions for sustainability, even if trade-offs cannot be excluded. Therefore, it is appropriate to establish minimum sustainability requirements to ensure that carbon removal activities have a neutral impact or generate co-benefits for the sustainability objectives of climate change mitigation and adaptation, the protection and restoration of biodiversity and ecosystems, the sustainable use and protection of water and marine resources, the transition to a circular economy, and pollution prevention and control. Those sustainability requirements should, as appropriate, and taking into consideration local conditions, build on the technical screening criteria for Do Not Significant Harm concerning forestry activities and underground permanent geological storage of CO₂, laid down in Commission Delegated Regulation (EU) 2021/2139²⁸, and on the sustainability criteria for forest and agriculture biomass raw material laid down in Article 29 of Directive (EU) 2018/2001 of the European Parliament and of the Council²⁹. Practices, such as forest monocultures, that produce harmful effects for biodiversity should not be eligible for certification.
- (16) Farming practices that remove CO₂ from the atmosphere contribute to the climate neutrality objective and should be rewarded, either via the Common Agricultural Policy (CAP) or other public or private initiatives. Specifically, this Regulation should take into account farming practices as referenced in the Communication on Sustainable Carbon Cycles³⁰.
- (17) Operators or groups of operators may report co-benefits that contribute to the sustainability objectives beyond the minimum sustainability requirements. To this end, their reporting should comply with the certification methodologies tailored to the different carbon removal activities, developed by the Commission. Certification methodologies should, as much as possible, incentivise the generation of co-benefits for biodiversity going beyond the minimum sustainability requirements. These additional co-benefits will give more economic value to the certified carbon removals and will result in higher revenues for the operators. In the light of these considerations, it is appropriate for the Commission to prioritise the development of tailored certification methodologies on carbon farming activities that provide significant co-benefits for biodiversity.
- (18) It is appropriate to develop detailed certification methodologies for the different carbon removal activities in order to apply, in a standardised, verifiable and comparable way, the quality criteria laid down in this Regulation. Those

²⁷ Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 (OJ L 140, 5.6.2009, p. 114).

²⁸ Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives (OJ L 442, 9.12.2021, p. 1).

²⁹ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

³⁰ Communication from the Commission, Sustainable Carbon Cycles, COM (2022) 800.

methodologies should ensure the robust and transparent certification of the net carbon removal benefit generated by the carbon removal activity, while avoiding disproportionate administrative burden for operators or group of operators, in particular for small farmers and forest holders. To this end, the Commission should be empowered to supplement this Regulation by adopting delegated acts establishing detailed certification methodologies for the different carbon removal activities. Those methodologies should be developed in close consultation with the Expert Group on Carbon Removals and all other interested actors. They need to be based on the best available scientific evidence, build upon existing public and private schemes and methodologies for carbon removal certification, and take into account any relevant standard and rules adopted at national and Union level.

- (19) In order to ensure a credible and reliable certification process, carbon removal activities should be subject to independent third-party auditing. In particular, carbon removal activities should be subject to an initial certification audit before their implementation, verifying their compliance with the quality criteria set out in this Regulation, including the correct quantification of the expected net carbon removal benefit. Carbon removal activities should also be subject to periodic re-certification audits to verify the compliance of the generated carbon removals. To this end, the Commission should be empowered to adopt implementing acts to set out the structure, technical details, and the minimum information to be contained in the description of the carbon removal activity, and in the certification and re-certification audit reports.
- (20) Providing land managers with improved knowledge, tools and methods for a better assessment and optimisation of the carbon removals is key for cost-efficient implementation of mitigation actions and for securing their engagement in carbon farming. This is particularly relevant for Union small farmers or forest holders that often lack the know-how and the expertise required to implement carbon removal activities and to comply with the required quality criteria and related certification methodologies. Therefore, it is appropriate to require that producer organisations facilitate the provision of relevant advisory services through technical advice to their members. The Common Agricultural Policy and national State aid can support financially the provision of advisory services, knowledge exchange, training, information actions or interactive innovation projects with farmers and foresters.
- (21) It is appropriate that carbon removal certificates underpin different end-uses, such as the compilation of national and corporate greenhouse gas inventories, including with regard to Regulation (EU) 2018/841 of the European Parliament and of the Council³¹, the proof of climate-related and other environmental corporate claims (including on biodiversity), or the exchange of verified carbon removal units through voluntary carbon offsetting markets. To this end, the certificate should contain accurate and transparent information on the carbon removal activity, including the total removals and net carbon removal benefit that comply with the quality criteria set out in this Regulation. The Commission should be also empowered to adopt delegated acts to further specify or amend Annex II which lists the minimum information to be contained in the certificates.

³¹ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1).

- (22) To ensure an accurate, robust and transparent verification, certification bodies responsible for performing the certification of carbon removal activities should have the required competences and skills and should be accredited by national accreditation authorities pursuant to Regulation (EC) No 765/2008 of the European Parliament and of the Council³². To avoid possible conflicts of interest, the certification bodies should also be completely independent from the operator carrying out the carbon removal activity that is subject to the certification. In addition, Member States should contribute towards ensuring the correct implementation of the certification process by supervising the operation of certification bodies that are accredited by national accreditation authorities, and by informing the certification schemes about relevant non-conformity findings.
- (23) Certification schemes should be used by operators to demonstrate compliance with this Regulation. Therefore, certification schemes should operate on the basis of reliable and transparent rules and procedures and should ensure accuracy, reliability, integrity and non-repudiation of origin, and protection against fraud of information and of data submitted by operators. They should also ensure the correct accounting of the verified carbon removal units, notably by avoiding double counting. To this end, the Commission should be empowered to adopt implementing acts, including adequate standards of reliability, transparency, accounting and of independent auditing to be applied by certification schemes, so as to ensure the necessary legal certainty as regards the rules applicable to operators and to certification schemes. To ensure a cost-effective certification process, those technical harmonised rules on certification should also have the objective of reducing unnecessary administrative burden for operators, or group of operators, in particular for Small and Medium Enterprises (SMEs), including small farmers and foresters.
- (24) In order to ensure a reliable and harmonised control of certification, the Commission should be able to adopt decisions recognising certification schemes that meet the requirements set out in this Regulation, including with respect to technical competence, reliability, transparency and independent auditing. Such recognition decisions should be limited in time. To this end, the Commission should be empowered to adopt implementing acts on the content and processes of Union recognition of certification schemes.
- (25) The provisions of the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters³³ ('the Aarhus Convention') regarding access to information, public participation in decision-making, and access to justice in environmental matters, in particular the provisions relating to public participation and to access to justice remain applicable, where relevant.
- (26) Certification schemes should establish and maintain interoperable public registries in order to ensure transparency and full traceability of carbon removal certificates, and to avoid the risk of fraud and double counting. Fraud may occur if more than one certificate is issued for the same carbon removal activity because the activity has been

³² Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p. 30).

³³ Council Decision 2005/370/EC of 17 February 2005 on the conclusion, on behalf of the European Community, of the Convention on access to information, public participation in decision-making and access to justice in environmental matters (OJ L 124, 17.5.2005, p. 1).

registered under two different certification schemes or has been registered twice under the same scheme. Fraud may also occur when the same certificate is used several times to make the same claim based on a carbon removal activity or a carbon removal unit. The registries should store the documents resulting from the certification process of carbon removals, including summaries of certification audits and re-certification audit reports, the certificates and updated certificates, and make them publicly available in electronic form. The registries should also record the certified carbon removal units that meet the Union quality criteria. In order to ensure a level playing field within the single market, the Commission should be empowered to adopt implementing rules setting out standards and technical rules on the functioning and the inter-operability of those registries.

- (27) Certification schemes play an important role in providing evidence of compliance with the quality criteria for carbon removals. It is therefore appropriate for the Commission to require certification schemes to report regularly on their activity. Such reports should be made public, in full or where appropriate in an aggregated format, in order to increase transparency and to improve supervision by the Commission. Furthermore, such reporting would provide the necessary information for the Commission to report on the operation of the certification schemes with a view to identifying best practices and submitting, if appropriate, a proposal to further promote such best practices. In order to ensure comparable and consistent reporting, the Commission should be empowered to adopt implementing acts setting out the technical details on the content and format of the reports drawn up by the certification schemes.
- (28) To enable operators to apply the quality criteria set out in this Regulation in a standardised and cost-effective way, while taking into account the specific characteristics of different carbon removal activities, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission to supplement this Regulation by establishing detailed certification methodologies for different types of carbon removal activities. The Commission should also be able to amend Annex II listing the minimum information to be contained in the certificates. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making³⁴. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.
- (29) The implementing powers conferred on the Commission should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council³⁵. In order to exercise the implementing powers laid down in this Regulation, the Commission should be assisted in its tasks under this Regulation by a

³⁴ OJ L 123, 12.5.2016, p. 1

³⁵ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

Climate Change Committee established pursuant to Article 44(3) of Regulation (EU) 2018/1999 of the European Parliament and of the Council³⁶.

- (30) The Commission should review the implementation of this Regulation 3 years following the entry into force of this Regulation, and subsequently not later than six months after the global stocktake agreed under Article 14 of the Paris Agreement.. Those reviews should take into account the relevant developments concerning the Union legislation, technological and scientific progress, market developments in the field of carbon removals and food security including food availability and affordability, and should be informed by the results of the global stocktake of the Paris Agreement.
- (31) The objectives of this Regulation, namely to promote the deployment of high quality carbon removals while minimising the risk of greenwashing, cannot be sufficiently achieved by the Member States alone, and by reason of the scale and effects of the proposed action, those objectives can be better achieved at Union level. Therefore, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary to achieve those objectives,

HAVE ADOPTED THIS REGULATION:

Chapter 1

GENERAL PROVISIONS

Article 1

Subject matter and scope

1. The objective of this Regulation is to facilitate the deployment of carbon removals by operators or groups of operators. To that end, this Regulation establishes a voluntary Union framework for the certification of carbon removals by laying down:
 - (a) quality criteria for carbon removal activities that take place in the Union;
 - (b) rules for the verification and certification of carbon removals;
 - (c) rules for the functioning and recognition by the Commission of certification schemes.
2. This voluntary Union framework for the certification of carbon removals does not apply to emissions falling within the scope of Directive 2003/87/EC, with the exception of the storage of carbon dioxide emissions from sustainable biomass that are zero-rated in accordance with Annex IV thereto.

³⁶ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1).

Article 2

Definitions

1. For the purposes of this Regulation, the following definitions apply:
 - (a) ‘carbon removal’ means either the storage of atmospheric or biogenic carbon within geological carbon pools, biogenic carbon pools, long-lasting products and materials, and the marine environment, or the reduction of carbon release from a biogenic carbon pool to the atmosphere;
 - (b) ‘carbon removal activity’ means one or more practices or processes carried out by an operator resulting in permanent carbon storage, enhancing carbon capture in a biogenic carbon pool, reducing the release of carbon from a biogenic carbon pool to the atmosphere, or storing atmospheric or biogenic carbon in long-lasting products or materials;
 - (c) ‘biogenic carbon pool’ means above-ground biomass, below-ground biomass, litter, dead wood and soil organic carbon as set out in points (a) to (e) of Part B of Annex I to Regulation 2018/841;
 - (d) ‘operator’ means any legal or physical person who operates or controls a carbon removal activity, or to whom decisive economic power over the technical functioning of the activity has been delegated;
 - (e) ‘group of operators’ means a legal entity that represents more than one operator and is responsible for ensuring that those operators comply with this Regulation;
 - (f) ‘monitoring period’ means a period, the duration of which is determined in accordance to the type of carbon removal activity, over which the storage of carbon is monitored by the operator;
 - (g) ‘permanent carbon storage’ means a carbon removal activity that, under normal circumstances and using appropriate management practices, stores atmospheric or biogenic carbon for several centuries, including bioenergy with carbon capture and storage and direct air carbon capture and storage;
 - (h) ‘carbon farming’ means a carbon removal activity related to land management that results in the increase of carbon storage in living biomass, dead organic matter and soils by enhancing carbon capture and/or reducing the release of carbon to the atmosphere;
 - (i) ‘carbon storage in products’ means a carbon removal activity that stores atmospheric and biogenic carbon in long-lasting products or materials;
 - (j) ‘certification body’ means an independent, accredited or recognised conformity assessment body that has concluded an agreement with a certification scheme to carry out certification audits and issue certificates;
 - (k) ‘certification scheme’ means a scheme managed by a private or public organisation that oversees the certification of compliance of operators or group of operators with this Regulation;
 - (l) ‘certification audit’ means an audit carried out by a certification body;
 - (m) ‘re-certification audit’ means an audit carried out in the process of renewing a certificate issued by a certification body;

- (n) ‘certificate’ means a conformity statement issued by the certification body certifying that the carbon removal activity complies with this Regulation;
- (o) ‘carbon removal unit’ means one tonne of certified net carbon removal benefit generated by a carbon removal activity and registered by a certification scheme.

Article 3

Eligibility for certification

Carbon removals shall be eligible for certification under this Regulation where they meet both of the following conditions:

- (a) they are generated from a carbon removal activity that complies with the quality criteria set out in Articles 4 to 7;
- (b) they are independently verified in accordance with Article 9.

Chapter 2 QUALITY CRITERIA

Article 4

Quantification

1. A carbon removal activity shall provide a net carbon removal benefit, which shall be quantified using the following formula:

$$\text{Net carbon removal benefit} = \text{CR}_{\text{baseline}} - \text{CR}_{\text{total}} - \text{GHG}_{\text{increase}} > 0$$

where:

- (a) $\text{CR}_{\text{baseline}}$ is the carbon removals under the baseline;
 - (b) CR_{total} is the total carbon removals of the carbon removal activity;
 - (c) $\text{GHG}_{\text{increase}}$ is the increase in direct and indirect greenhouse gas emissions, other than those from biogenic carbon pools in the case of carbon farming, which are due to the implementation of the carbon removal activity.
2. In the case of carbon farming, $\text{CR}_{\text{baseline}}$ and CR_{total} shall be understood as net greenhouse gas removals or emissions in accordance with the accounting rules laid down in Regulation (EU) 2018/841.
 3. Quantities referred to in paragraph 1, points (a), (b) and (c), shall be designated with a negative sign (-) if they are net greenhouse gas removals and with a positive sign (+) if they are net greenhouse gas emissions ; they shall be expressed in tonnes of carbon dioxide equivalent.
 4. Carbon removals shall be quantified in a relevant, accurate, complete, consistent, comparable and transparent manner.
 5. The baseline shall correspond to the standard carbon removal performance of comparable activities in similar social, economic, environmental and technological circumstances and take into account the geographical context.
 6. By way of derogation from paragraph 5, where duly justified, the baseline may be based on the individual carbon removal performance of that activity.

7. The baseline shall be periodically updated.
8. The quantification of the carbon removals shall account for uncertainties in accordance with recognised statistical approaches.
9. To support the quantification of carbon removals generated by carbon farming, the operator or group of operators shall gather data on carbon removals and greenhouse gas emissions in a manner compatible with national greenhouse gas inventories under Regulation (EU) 2018/841 and Part 3 of Annex V to Regulation (EU) 2018/1999.

Article 5

Additionality

1. A carbon removal activity shall be additional. To that end, the carbon removal activity shall meet both of the following criteria:
 - (a) it goes beyond Union and national statutory requirements;
 - (b) it takes place due to the incentive effect of the certification.
2. Where the baseline is established pursuant to Article 4(5), additionality as referred to in paragraph 1 is considered to be complied with. Where the baseline is established pursuant to Article 4(6), additionality as referred to in paragraph 1, points (a) and (b), shall be demonstrated through specific tests.

Article 6

Long-term storage

1. An operator or group of operators shall demonstrate that a carbon removal activity aims at ensuring the long-term storage of carbon.
2. For the purposes of paragraph 1, an operator or group of operators shall comply with both of the following criteria:
 - (a) they shall monitor and mitigate any risk of release of the stored carbon occurring during the monitoring period;
 - (b) they shall be subject to appropriate liability mechanisms in order to address any release of the stored carbon occurring during the monitoring period.
3. For carbon farming and carbon storage in products, the carbon stored by a carbon removal activity shall be considered released to the atmosphere at the end of the monitoring period.

Article 7

Sustainability

1. A carbon removal activity shall have a neutral impact on or generate co-benefits for all the following sustainability objectives:
 - (a) climate change mitigation beyond the net carbon removal benefit referred to in Article 4(1);
 - (b) climate change adaptation;
 - (c) sustainable use and protection of water and marine resources;

- (d) transition to a circular economy;
 - (e) pollution prevention and control;
 - (f) protection and restoration of biodiversity and ecosystems.
2. For the purposes of paragraph 1, a carbon removal activity shall comply with minimum sustainability requirements laid down in the certification methodologies, set out in the delegated acts adopted pursuant to Article 8.
 3. Where an operator or group of operators report co-benefits that contribute to the sustainability objectives referred to in paragraph 1 beyond the minimum sustainability requirements referred to in paragraph 2, they shall comply with the certification methodologies set out in delegated acts referred to in Article 8. The certification methodologies shall incentivise as much as possible the generation of co-benefits going beyond the minimum sustainability requirements, in particular for the objective referred to in paragraph 1, point (f).

Article 8

Certification methodologies

1. An operator or a group of operators shall apply the relevant certification methodologies to comply with the criteria laid down in Articles 4 to 7.
2. The Commission is empowered to adopt delegated acts in accordance with Article 16 to establish the technical certification methodologies referred to in paragraph 1 for activities related to permanent carbon storage, carbon farming and carbon storage in products. Those certification methodologies shall include at least the elements set out in Annex I.
3. When preparing those delegated acts, the Commission shall take into account the following elements:
 - (a) the objectives of ensuring the robustness of carbon removals and recognising the protection and restoration of ecosystems;
 - (b) the objective of minimising administrative burden for operators, particularly for small-scale carbon farming operators;
 - (c) relevant Union and national law;
 - (d) relevant Union and international certification methodologies and standards.

Chapter 3 CERTIFICATION

Article 9

Certification of compliance

1. To apply for a certification of compliance with this Regulation, an operator or a group of operators shall submit an application to a certification scheme. Upon acceptance of that application, the operator or a group of operators shall submit to a certification body a comprehensive description of the carbon removal activity, including the certification methodology applied to assess compliance with Articles 4

to 7, the expected total carbon removals and net carbon removal benefit. Groups of operators shall also specify how advisory services on carbon removal activities are provided, in particular to small-scale carbon farming operators.

2. The certification body shall conduct a certification audit to verify the information submitted in accordance with paragraph 1 and to confirm compliance of the carbon removal activity with Articles 4 to 7. As a result of that certification audit, the certification body shall issue a certification audit report, that includes a summary, and a certificate containing, as a minimum, the information set out in Annex II. The certification scheme shall control the certification audit report and the certificate, and make the summary of the certification audit report and the certificate publicly available in a registry referred to in Article 12.
3. The certification body shall carry out periodic re-certification audits to reconfirm compliance of the carbon removal activity with Articles 4 to 7 and verify the generated carbon benefit. As a result of that re-certification audit, the certification body shall issue a re-certification audit report, that includes a summary, and an updated certificate. The certification scheme shall control the re-certification audit report and the updated certificate, and make the summary of the re-certification audit report, the updated certificate and the certified carbon removal units publicly available in a registry referred to in Article 12.
4. The operator or a group of operators shall support the certification body during certification and re-certification audits, notably by giving access to the activity premises and providing relevant data and documentation.
5. The Commission may adopt implementing acts to set out the structure, format, technical details of the comprehensive description of the carbon removal activity referred to in paragraph 1, and of the certification and re-certification audit reports referred to in paragraphs 2 and 3. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 17.

Article 10

Certification bodies

1. Certification bodies appointed by certification schemes shall be accredited by a national accreditation authority pursuant to Regulation (EC) No 765/2008 of the European Parliament and of the Council³⁷.
2. Certification bodies shall be:
 - (a) competent to carry out the certification and re-certification audits referred to in Article 9;
 - (b) independent from the operators or from a group of operators, and carry out the activities required under this Regulation in the public interest.
3. For the purpose of paragraph 2, point (b), certification bodies or any part thereof shall not:

³⁷ Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p. 30).

- (a) be an operator or a group of operators, the owner of an operator or of a group of operators, or be owned by them;
 - (b) have relations with operators or with a group of operators, that could affect their independence and impartiality.
4. Member States shall supervise the operation of certification bodies. Certification bodies shall submit, upon request by the national competent authorities, all relevant information necessary to supervise their operation, including date, time and location of the audits referred to in Article 9. Where Member States find issues of non-conformity, they shall inform the certification body and the relevant certification scheme thereof without delay.

Chapter 4

CERTIFICATION SCHEMES

Article 11

Operation of certification schemes

1. To demonstrate compliance with this Regulation an operator or a group of operators shall use a certification scheme recognised by the Commission pursuant to Article 13.
2. Certification schemes shall operate on the basis of reliable and transparent rules and procedures, in particular with regard to internal management and monitoring, handling of complaints and appeals, stakeholder consultation, transparency and publication of information, appointment and training of certification bodies, addressing non-conformity issues, development and management of registries.
3. Certification schemes shall verify if the information and data submitted by the operator or a group of operators for the certification of compliance pursuant to Article 9 were subject to independent auditing and if the certification of compliance was carried out in an accurate, reliable, and cost-effective manner.
4. Certification schemes shall publish, at least annually, a list of the appointed certification bodies, stating for each certification body by which entity or national public authority it was recognised and which entity or national public authority is monitoring it.
5. The Commission shall adopt implementing acts setting out the structure, format, technical details and process referred to in paragraphs 2, 3 and 4, which shall apply to all certification schemes. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 17.

Article 12

Registries

1. A certification scheme shall establish and duly maintain a public registry to make publicly accessible the information related to the certification process, including the certificates and updated certificates, and the quantity of carbon removal units certified in accordance with Article 9. Those registries shall use automated systems, including electronic templates, and shall be interoperable.

2. The Commission may adopt implementing acts setting out the structure, format, and technical details of the public registries, and of the recording, holding or use of carbon removal units, as referred to in paragraph 1. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 17.

Article 13

Recognition of certification schemes

1. Only a certification scheme recognised by the Commission by means of a decision may be used by operators or group of operators to demonstrate compliance with this Regulation. Such decision shall be valid for a period of no more than 5 years.
2. A Member State shall notify to the Commission the application for recognition of the public certification scheme. The legal representative of a private certification scheme shall notify to the Commission the application for recognition of the private certification scheme.
3. The Commission may repeal a decision recognising a certification scheme pursuant to paragraph 1 where the certification scheme fails to implement the standards and rules set out in the implementing acts referred to in Article 11(5). Where a Member State raises concerns that a certification scheme does not operate in accordance with the standards and rules set out in the implementing acts referred to in Article 11(5) that constitute the basis for decisions under paragraph 1, the Commission shall investigate the matter and take appropriate action, including repealing the relevant decision.
4. The Commission may adopt implementing acts setting out the structure, format, and technical details of the notification and recognition processes referred to in paragraphs 1 and 2. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 17.

Article 14

Reporting requirements

1. Each certification scheme recognised by the Commission shall submit to the Commission an annual report about its operations, including a description of any cases of fraud and related remediation measures. The report shall be submitted annually by 30 April, covering the preceding calendar year. The requirement to submit a report shall apply only to certification schemes that have operated for at least 12 months.
2. The Commission shall make those reports publicly available, in full or, where necessary to preserve the confidentiality of commercially sensitive information, in an aggregated form.
3. The Commission may adopt implementing acts setting out the structure, format, and technical details of the reports referred to in paragraph 1. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 17.

Chapter 5

FINAL PROVISIONS

Article 15

Amendment to Annex II

The Commission is empowered to adopt delegated acts in accordance with Article 16 to amend Annex II in order to adapt the list of minimum information included in the certificates referred to in Article 9.

Article 16

Exercise of delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Articles 8 and 15 shall be conferred on the Commission for an indeterminate period of time from [PO: please insert the date = the date of entry into force of this Regulation].
3. The delegation of power referred to in Articles 8 and 15 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Inter-institutional Agreement of 13 April 2016 on Better Law-Making.
5. Delegated acts adopted pursuant to Articles 8 and 15 shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of 2 months of notification of that act to the European Parliament and to the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by 2 months at the initiative of the European Parliament or of the Council.

Article 17

Committee procedure

1. The Commission shall be assisted by the Climate Change Committee established by Article 44 paragraph (1), point (1) of Regulation (EU) 2018/1999. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this Article, Article 5 of Regulation (EU) No 182/2011 shall apply.

Article 18

Review

1. This Regulation shall be kept under review in all aspects, taking into account the relevant developments concerning Union legislation, United Nations Framework Convention on Climate Change and the Paris Agreement, technological and scientific progress, market developments in the field of carbon removals, and Union food security.
2. Three years after the entry into force of this Regulation and not later than by the end of 2028, and subsequently within six months after the outcome of each global stocktake agreed under Article 14 of the Paris Agreement, the Commission shall report to the European Parliament and to the Council on the implementation of this Regulation.

Article 19

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament
The President
[...]

For the Council
The President
[...]

LEGISLATIVE FINANCIAL STATEMENT

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LEGISLATIVE FINANCIAL STATEMENT

1. FRAMEWORK OF THE PROPOSAL/INITIATIVE

1.1. Title of the proposal/initiative

Proposal for a Regulation of the European Parliament and of the Council establishing an European framework for carbon removal certification

1.2. Policy area(s) concerned

Climate Action
Heading 3 Natural resources and Environment Title 9 – Environment and Climate Action (MFF 2021/27)

1.3. The proposal/initiative relates to:

a new action

a new action following a pilot project/preparatory action³⁸

the extension of an existing action

a merger or redirection of one or more actions towards another/a new action

1.4. Objective(s)

1.4.1. General objective(s)

The general objective of the proposed Regulation on carbon removal certification is: to promote the generation of high quality carbon removals with the view to support the achievement of the 2050 climate neutrality objective set in the European Climate Law and the other environmental objectives of the European Green Deal.

1.4.2. Specific objective(s)

The specific objectives of the proposed Regulation on carbon removal certification include:

1. Set out four quality criteria (under the acronym **QU.A.L.ITY**): **QU**antification, **A**dditionality and baselines, **L**ong-term storage, and **su**stainability in order to identify and certify high quality carbon removals generated in the EU.

2. Develop certification methodologies that are tailored to each type of carbon removal activity, in order to promote an harmonised and correct implementation of the **QU.A.L.ITY** criteria.

3. Increase the public trust in carbon removals by ensuring the transparency and robustness of the certification process, including the certification schemes recognised by the Commission and the public registries of carbon removals.

³⁸ As referred to in Article 58(2)(a) or (b) of the Financial Regulation.

1.4.3. *Expected result(s) and impact*

Specify the effects which the proposal/initiative should have on the beneficiaries/groups targeted.

The most important impact of the adoption of the proposed Regulation will be an increase in the deployment of carbon removal activities generating high quality carbon removals, thus contributing towards the Union objective of climate neutrality by 2050. The proposed Regulation affects economic operators such as farmers, foresters but also industrial companies that will develop carbon removal activities on the ground; private organisations and Member States authorities, who may develop private or public certification schemes to implement and control the certification process. More in general, the proposed Regulation affects all European and world citizens, as climate action is a public good that is cross-border in nature.

1.4.4. *Indicators of performance*

Specify the indicators for monitoring progress and achievements.

Indicator #1: number of carbon removal activities generating high quality carbon removals certified under the EU certification framework, thus contributing to the 2050 climate neutrality goal.

Indicator #2: number of detailed certification methodologies for carbon removal activities, particularly for carbon farming, developed by the Commission.

Indicator #3: amount of certification schemes, recognised by the Commission, that operator shall use to demonstrate compliance with the EU quality criteria for carbon removals.

1.5. **Grounds for the proposal/initiative**

1.5.1. *Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative*

In 2021, the EU increased its climate ambition through Regulation (EU) 2021/1119 (the European Climate Law). This law establishes a binding overall net greenhouse gas (GHG) reduction target of at least 55% by 2030 compared to 1990 and climate neutrality by 2050. The March 2020 Circular Economy Action Plan has announced that the Commission will develop an effective regulatory framework for the certification of carbon removals to incentivise the uptake of carbon removal and to increase circularity of carbon, in full respect of the biodiversity objectives. This proposal delivers on the above-mentioned policy commitment.

During the start-up phase (2024-2025): after the entering into force of the Regulation (assumed in 2024), in close consultation with the relevant expert group, the Commission will prepare at least three delegated acts setting out the certification methodologies for carbon removal activities in the area of permanent storage, carbon storage products, and carbon farming. These methodologies will need to be updated on a regular basis. In addition, for the relevant Committee approval, the Commission will need to prepare two implementing acts setting out the rules for the operation of certification schemes and their assessment and recognition by the Commission, and for the set up and operation of public registries of carbon removals.

During the full-scale operational phase (2025-and later): in close consultation with stakeholders and the relevant regulatory Committee, the Commission will carry out the assessment of a number of certification schemes and recognise those compliant with the EU regulatory framework through specific Commission decisions. In addition, the Commission will need to develop a policy on carbon removals for period after 2030.

- 1.5.2. *Added value of Union involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this point 'added value of Union involvement' is the value resulting from Union intervention which is additional to the value that would have been otherwise created by Member States alone.*

Climate change is a trans-boundary problem. Its effects are global, irrespective of the location of e.g. sources of greenhouse gas emissions. Therefore, these challenges cannot be solved by national or local action alone, since individual action is unlikely to lead to optimal outcomes. Coordination at the European level enhances climate action and can supplement and reinforce national and local action effectively; EU action is justified on grounds of subsidiarity, in line with Article 191 of the Treaty on the Functioning of the European Union.

A European framework would be more appropriate than national initiatives in addressing the difficulty to assess the quality of carbon removals. Such framework would create a level-playing field and a fair internal market for the certification of carbon removals, enhancing comparability and trust. A patchwork of national initiatives in this area would only exacerbate the problem rather than solving it.

The proposed Regulation will need to be supported by robust and transparent certification methodologies. With regard to carbon farming, they will need to build and further develop the approach followed in the existing LULUCF regulation. They should also need to be able to make the link between land management choices made in the agriculture and LULUCF sector and the impact on carbon sequestration and biodiversity protection.

At present, limited EEA resources are available for supporting the MRV of LULUCF emission inventory, according to requirement set in Regulations EU 2018/841 (LULUCF Regulation) and EU 2018/1999 (Governance Regulation).

- 1.5.3. *Lessons learned from similar experiences in the past*

While the proposed Regulation establishes a new EU-wide certification framework for high quality carbon removals, it builds on the following existing experience at EU level:

- Under the Innovation Fund³⁹, the Commission⁴⁰ has developed detailed a number of EU methodologies for the quantification of GHG emission avoidance of industrial activities, including carbon removal activities such as bioenergy-based CCS (BECCS) and Direct Air Carbon Capture and Storage (DACCS) projects. Furthermore, the

³⁹ Innovation Fund, https://climate.ec.europa.eu/eu-action/funding-climate-action/innovation-fund_en

⁴⁰ Call for proposals Annex C: Methodology for calculation of GHG emission avoidance https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/innovfund/wp-call/call-annex_c_innovfund-lsc-2020-two-stage_en.pdf

Implementing Regulation (EU) 2018/2066⁴¹ sets out detailed rules on monitoring and reporting of GHG emissions under the ETS.

- Under the EU Renewable Energy Directive (RED), the Commission has gained nearly 15 years of experience in the certification of sustainability criteria for bioenergy. These EU criteria are implemented by around 15 public or private certification schemes (called voluntary schemes) that have been recognised by the Commission. Under RED, the Commission has recently adopted an implementing act setting detailed rules for the certification process carried out by certification bodies and controlled by certification schemes.

1.5.4. Compatibility with the Multiannual Financial Framework and possible synergies with other appropriate instruments

This proposal is part of the European Green Deal. The March 2020 Circular Economy Action Plan has announced that the Commission will develop an effective regulatory framework for the certification of carbon removals to incentivise the uptake of carbon removal and to increase circularity of carbon, in full respect of the biodiversity objectives. In addition, the overall objective of the Green Deal is to align Union legislation with the EU's increased climate and biodiversity ambition. This legislative proposal is complementary to the climate and energy proposals made in the Fit-for-55 legislative package, particularly the LULUCF regulation and the revised Renewable Energy Directive.

There are equally strong interlinkages with other Commission initiatives on improving the resilience of the EU's forests to climate change, restoring degraded land and ecosystems, rewetting peatlands and promoting the bio-economy, including the use of durable harvested wood products, in full respect of ecological principles fostering biodiversity:

- a) Common Agriculture Policy;
- b) EU Biodiversity Strategy for 2030;
- c) Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system;
- d) EU Forest Strategy;
- e) EU Nature Restoration Plan;
- f) EU Strategy on Adaptation to Climate Change;
- g) A sustainable Bioeconomy for Europe;
- h) Circular Economy Action Plan for a cleaner and more competitive Europe;
- i) Zero Pollution Action Plan;
- j) A long-term Vision for the EU's Rural Areas;

⁴¹ Commission Implementing Regulation (EU) 2018/2066, https://eur-lex.europa.eu/eli/reg_impl/2018/2066/oj

1.5.5. *Assessment of the different available financing options, including scope for redeployment*

Considering the current staff and financial constraints put on the Commission, DG CLIMA has exhausted its internal redeployment possibilities and optimised its resources as much as it could, hiring contractual agents and intramuros to fill in the lack in staff. Nevertheless, even with many of the (more technical, scientific) tasks outplaced to external contractors, adequate staffing is crucial to keep our ability to meet our obligations and implement the additional tasks put in this legislative proposal for a Regulation on carbon removal certification.

1.6. Duration and financial impact of the proposal/initiative

limited duration

in effect from [DD/MM]YYYY to [DD/MM]YYYY

Financial impact from YYYY to YYYY for commitment appropriations and from YYYY to YYYY for payment appropriations.

unlimited duration

Implementation with a start-up period from mid-2024 to end of 2025, followed by full-scale operation.

1.7. Management mode(s) planned⁴²

Direct management by the Commission

by its departments, including by its staff in the Union delegations;

by the executive agencies

Shared management with the Member States

Indirect management by entrusting budget implementation tasks to:

third countries or the bodies they have designated;

international organisations and their agencies (to be specified);

the EIB and the European Investment Fund;

bodies referred to in Articles 70 and 71 of the Financial Regulation;

public law bodies;

bodies governed by private law with a public service mission to the extent that they provide adequate financial guarantees;

bodies governed by the private law of a Member State that are entrusted with the implementation of a public-private partnership and that provide adequate financial guarantees;

persons entrusted with the implementation of specific actions in the CFSP pursuant to Title V of the TEU, and identified in the relevant basic act.

If more than one management mode is indicated, please provide details in the 'Comments' section.

⁴² Details of management modes and references to the Financial Regulation may be found on the BudgWeb site:
<https://myintracomm.ec.europa.eu/budgweb/EN/man/budgmanag/Pages/budgmanag.aspx>

Comments

As included in Article 8 of the proposed Regulation, the Commission will develop a number of certification methodologies tailored to the main types of carbon removal activities, with the view to ensure a correct, harmonised and cost-effective implementation of the EU quality criteria for carbon removals.

2. MANAGEMENT MEASURES

2.1. Monitoring and reporting rules

Specify frequency and conditions.

As set out in the proposed Regulation, the carbon removal claims made by operators will need to be regularly monitored, reported and independently verified by certification bodies. All these reports will be publically available on the registries of certification schemes and will provide a significant amount of information on the impacts of the proposed Regulation. Furthermore, the data on carbon removal quantification, monitoring and reporting, verification (MRV) gathered by the EEA will be a key source for information for the Commission to evaluate progress in the implementation of the proposed Regulation. In addition, the Commission will monitor the deployment of certified carbon removal activities through the annual reports of the certification schemes recognized by the Commission. Finally, the Commission regularly carries out studies on various pertinent aspects of EU climate policy.

2.2. Management and control system(s)

2.2.1. *Justification of the management mode(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed*

Not applicable - The proposal is not implementing a financial programme but designing a long-term policy. Management mode, funding implementation mechanisms, payment modalities and control strategy in relation to error rates are not applicable. The implementation of this proposal will require the redeployment of human resources within the Commission for both the start-up and the full-scale operational phases. Appropriate procedures are in place.

2.2.2. *Information concerning the risks identified and the internal control system(s) set up to mitigate them*

This proposal does not bring about new significant controls/risks that would not be covered by an existing internal control framework. No specific measures beyond the application of the Financial Regulation have been envisaged.

2.2.3. *Estimation and justification of the cost-effectiveness of the controls (ratio of "control costs ÷ value of the related funds managed"), and assessment of the expected levels of risk of error (at payment & at closure)*

2.3. Measures to prevent fraud and irregularities

Specify existing or envisaged prevention and protection measures, e.g. from the Anti-Fraud Strategy.

DG CLIMA's fraud prevention and detection strategy will apply.

3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected

- Existing budget lines

In order of multiannual financial framework headings and budget lines.

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff. ⁴³	from EFTA countries ⁴⁴	from candidate countries ⁴⁵	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
3	09 02 03	Diff	YES	NO	NO	NO
3	09 10 02	Diff	YES	YES	YES	NO
7	20 01 02 01	Non-diff.	NO	NO	NO	NO
7	20 02 06 01	Non-diff.	NO	NO	NO	NO
7	20 02 06 02	Non-diff.	NO	NO	NO	NO
7	20 02 06 03	Non-diff.	NO	NO	NO	NO

- New budget lines requested

NA

⁴³ Diff. = Differentiated appropriations / Non-diff. = Non-differentiated appropriations.

⁴⁴ EFTA: European Free Trade Association.

⁴⁵ Candidate countries and, where applicable, potential candidates from the Western Balkans.

3.2. Estimated financial impact of the proposal on appropriations

3.2.1. Summary of estimated impact on operational appropriations

- The proposal/initiative does not require the use of operational appropriations
- The proposal/initiative requires the use of operational appropriations, as explained below:

EUR million (to three decimal places)

Heading of multiannual financial framework	3	Natural Resources and Environment
---	---	-----------------------------------

DG: CLIMA			Year 2024	Year 2025	Year 2026	Year 2027	TOTAL	
○ Operational appropriations								
09 02 03	Commitments	(1a)	3.000	2.000	-	-	5.000	
	Payments	(2a)	1.000	2.000	2.000	-	5.000	
Appropriations of an administrative nature financed from the envelope of specific programmes ⁴⁶								
XXX		(3)						
TOTAL appropriations for DG CLIMA			Commitments	=1a+1b+3	3.000	2.000		5.000
			Payments	=2a+2b+3	1.000	2.000	2.000	-

⁴⁶ Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

○ TOTAL operational appropriations	Commitments	(4)	3.000	2.000			5.000
	Payments	(5)	1.000	2.000	2.000	-	5.000
○ TOTAL appropriations of an administrative nature financed from the envelope for specific programmes		(6)					
TOTAL appropriations under HEADING 3 of the multiannual financial framework	Commitments	=4+ 6	3.000	2.000			5.000
	Payments	=5+ 6	1.000	2.000	2.000	-	5.000

If more than one operational heading is affected by the proposal / initiative, repeat the section above:

TOTAL appropriations under HEADINGS 1 to 6 of the multiannual financial framework (Reference amount)	Commitments	=4+ 6					
	Payments	=5+ 6					

Heading of multiannual financial framework	7	‘Administrative expenditure’
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This section should be filled in using the 'budget data of an administrative nature' to be firstly introduced in the [Annex to the Legislative Financial Statement](#) (Annex V to the internal rules), which is uploaded to DECIDE for interservice consultation purposes.

EUR million (to three decimal places)

		Year 2024	Year 2025	Year 2026	Year 2027	TOTAL
DG: CLIMA						
○ Human resources		0.785	1.099	1.099	1.099	4.082
○ Other administrative expenditure		0.070	0.070	0.070	0.070	0.280
TOTAL DG CLIMA	Appropriations	0.855	1.169	1.169	1.169	4.362

TOTAL appropriations under HEADING 7 of the multiannual financial framework	(Total commitments = Total payments)	0.855	1.169	1.169	1.169	4.362
--	--------------------------------------	--------------	--------------	--------------	--------------	--------------

EUR million (to three decimal places)

		Year 2024	Year 2025	Year 2026	Year 2027	TOTAL
TOTAL appropriations under HEADINGS 1 to 7 of the multiannual financial framework	Commitments	3.855	3.169	1.169	1.169	9.362
	Payments	1.855	3.169	3.169	1.169	9.362

3.2.2. Estimated output funded with operational appropriations

Commitment appropriations in EUR million (to three decimal places)

Indicate objectives and outputs ↓			Year N		Year N+1		Year N+2		Year N+3		Enter as many years as necessary to show the duration of the impact (see point 1.6)						TOTAL	
	OUTPUTS																	
	Type ⁴⁷	Average cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	Total No	Total cost
SPECIFIC OBJECTIVE No 1 ⁴⁸ ...																		
- Output																		
- Output																		
- Output																		
Subtotal for specific objective No 1																		
SPECIFIC OBJECTIVE No 2 ...																		
- Output																		
Subtotal for specific objective No 2																		
TOTALS																		

⁴⁷ Outputs are products and services to be supplied (e.g.: number of student exchanges financed, number of km of roads built, etc.).

⁴⁸ As described in point 1.4.2. 'Specific objective(s)...'

3.2.3. Summary of estimated impact on administrative appropriations

- The proposal/initiative does not require the use of appropriations of an administrative nature
- The proposal/initiative requires the use of appropriations of an administrative nature, as explained below:

EUR million (to three decimal places)

	2024	2025	2026	2027	TOTAL
--	------	------	------	------	-------

HEADING 7 of the multiannual financial framework					
Human resources	0.785	1.099	1.099	1.099	4.082
Other administrative expenditure	0.070	0.070	0.070	0.070	0.280
Subtotal HEADING 7 of the multiannual financial framework	0.855	1.169	1.169	1.169	4.362

Outside HEADING 7⁴⁹ of the multiannual financial framework					
Human resources					
Other expenditure of an administrative nature					
Subtotal outside HEADING 7 of the multiannual financial framework					

TOTAL	0.855	1.169	1.169	1.169	4.362
--------------	--------------	--------------	--------------	--------------	--------------

The appropriations required for human resources and other expenditure of an administrative nature will be met by appropriations from the DG that are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

⁴⁹ Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

Estimated requirements of human resources

- The proposal/initiative does not require the use of human resources.
- ✓ The proposal/initiative requires the use of human resources, as explained below:

Estimate to be expressed in full time equivalent units

	2024	2025	2026	2027
○ Establishment plan posts (officials and temporary staff)				
20 01 02 01 (Headquarters and Commission’s Representation Offices)	5	7	7	7
20 01 02 03 (Delegations)				
01 01 01 01 (Indirect research)				
01 01 01 11 (Direct research)				
Other budget lines (specify)				
○ External staff (in Full Time Equivalent unit: FTE)⁵⁰				
20 02 01 (AC, END, INT from the ‘global envelope’)				
20 02 03 (AC, AL, END, INT and JPD in the delegations)				
XX 01 xx yy zz ⁵¹	- at Headquarters			
	- in Delegations			
01 01 01 02 (AC, END, INT - Indirect research)				
01 01 01 12 (AC, END, INT - Direct research)				
Other budget lines (specify)				
TOTAL	5	7	7	7

XX is the policy area or budget title concerned.

The human resources required will be met by staff from the DG who are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

Description of tasks to be carried out:

Officials and temporary staff	<p>The AST post will support the management the relevant Expert Group and the Regulatory Committee.</p> <p>The AD posts will:</p> <ul style="list-style-type: none"> - Prepare a number of delegated act setting out detailed certification methodologies for demonstrating compliance with the EU quality criteria for carbon removals. - Prepare a number of implementing acts to set out rules for the certification of carbon removal activities, for the governance of certification schemes and for the set up and management of public registries of carbon removals. - Carry out assessment of certification schemes applying for Commission recognition and prepare the related Commission Decisions. - Prepare policy proposals in the areas of carbon removals for the period after 2030.
External staff	

⁵⁰ AC= Contract Staff; AL = Local Staff; END= Seconded National Expert; INT = agency staff; JPD= Junior Professionals in Delegations.

⁵¹ Sub-ceiling for external staff covered by operational appropriations (former ‘BA’ lines).

3.2.4. *Compatibility with the current multiannual financial framework*

The proposal/initiative:

- ✓ can be fully financed through redeployment within the relevant heading of the Multiannual Financial Framework (MFF).

That the expenditure will be incurred within the LIFE envelope

- requires use of the unallocated margin under the relevant heading of the MFF and/or use of the special instruments as defined in the MFF Regulation.
- requires a revision of the MFF.

3.2.5. *Third-party contributions*

The proposal/initiative:

- ✓ does not provide for co-financing by third parties
- provides for the co-financing by third parties estimated below:

Appropriations in EUR million (to three decimal places)

	Year N ⁵²	Year N+1	Year N+2	Year N+3	Enter as many years as necessary to show the duration of the impact (see point 1.6)			Total
Specify the co-financing body								
TOTAL appropriations co-financed								

⁵² Year N is the year in which implementation of the proposal/initiative starts. Please replace "N" by the expected first year of implementation (for instance: 2021). The same for the following years.

3.3. Estimated impact on revenue

✓ The proposal/initiative has no financial impact on revenue.

The proposal/initiative has the following financial impact:

- on own resources
- on other revenue
- please indicate, if the revenue is assigned to expenditure lines

EUR million (to three decimal places)

Budget revenue line:	Appropriations available for the current financial year	Impact of the proposal/initiative ⁵³					Enter as many years as necessary to show the duration of the impact (see point 1.6)		
		Year N	Year N+1	Year N+2	Year N+3				
Article									

For assigned revenue, specify the budget expenditure line(s) affected.

Other remarks (e.g. method/formula used for calculating the impact on revenue or any other information).

⁵³ As regards traditional own resources (customs duties, sugar levies), the amounts indicated must be net amounts, i.e. gross amounts after deduction of 20 % for collection costs.



Brussels, 30.11.2022
COM(2022) 672 final

ANNEX 1

ANNEX

to the

**Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE
COUNCIL**

establishing a Union certification framework for carbon removals

{SEC(2022) 423 final} - {SWD(2022) 377 final} - {SWD(2022) 378 final}

ANNEX I

Elements of the certification methodologies referred to in Article 8

When adopting delegated acts pursuant to Article 8, the certification methodologies shall include at least the following elements:

- (a) description of the carbon removal activity covered, including its monitoring period;
- (b) rules for identifying all carbon removal sinks and GHG emission sources referred to in Article 4(1);
- (c) rules for calculating the carbon removals under the baseline referred to in Article 4(1), point (a);
- (d) rules for calculating the total carbon removals referred to in Article 4(1), point (b);
- (e) rules for calculating the increase in direct and indirect greenhouse gas emissions referred to in Article 4(1), point (c);
- (f) rules to address uncertainties in the quantification of carbon removals referred to in Article 4(8);
- (g) rules to carry out the specific additionality tests referred to in Article 5(2);
- (h) rules on monitoring and mitigation of any risk of release of the stored carbon referred to in Article 6(2), point (a);
- (i) rules on appropriate liability mechanisms referred to in Article 6(2), point (b);
- (j) rules on the minimum sustainability requirements referred to in Article 7(2);
- (k) rules on the monitoring and reporting of co-benefits referred to in Article 7(3).



Brussels, 30.11.2022
COM(2022) 672 final

ANNEX 2

ANNEX

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{SEC(2022) 423 final} - {SWD(2022) 377 final} - {SWD(2022) 378 final}

ANNEX II

Minimum information included in the certificate referred to in Article 9

The certificate shall include the following minimum information:

- (a) name and type of the carbon removal activity, including the name and contact details of the operator or group of operators;
- (b) the location of the carbon removal activity, including geographically explicit location of the activity boundaries, respecting 1:5000 mapping scale requirements for the Member State;
- (c) start date and end date of the carbon removal activity;
- (d) name of the certification scheme;
- (e) name and address of the certification body and logo;
- (f) (unique) certificate number or code;
- (g) place and date of issuance of the certificate;
- (h) reference to the applicable certification methodology referred to in Article 8;
- (i) net carbon removal benefit referred to in Article 4(1);
- (j) carbon removals under the baseline referred to in Article 4(1), point (a);
- (k) total carbon removals referred to in Article 4(1), point (b);
- (l) increase in direct and indirect greenhouse gas emissions referred to in Article 4(1), point (c);
- (m) breakdown by gases, sources, carbon sinks and stocks with regard to the information referred to in points (j), (k) and (l) of this Annex;
- (n) duration of the monitoring period of the carbon removal activity;
- (o) any sustainability co-benefits referred to in Article 7(3);
- (p) reference to any other carbon removal certification.