



POLICY BRIEF

INTRODUCING AN EU CARBON REMOVAL PILOT PROCUREMENT PROGRAMME

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EXECUTIVE SUMMARY

Bold policy action is needed to demonstrate carbon removal technologies

Carbon dioxide removal (CDR) must feature high on the EU climate agenda during the next political mandate. An array of CDR technologies and methods that remove carbon from the atmosphere to store it durably are necessary to complement ongoing emissions reduction efforts, but work remains to be done to utilise their full potential. In the longer run, CDR will be needed to achieve net negative emissions, helping reverse some of the damage done by legacy emissions. As an emerging field within cleantech, CDR has the potential to generate growth and create jobs in the green economy alongside delivering essential functions for the climate.

Today, a lack of market confidence and an unclear business case stymie much-needed private investment in high-quality, permanent CDR methods. The EU and its member state governments thus have a key role to play in supporting promising yet early-stage CDR methods as they attempt to make the transition from demonstration to deployment at scale. EU policymakers must act at this critical juncture to inspire the confidence of private sector investors seeking proof of concept for CDR. Seizing this opportunity would also position the EU as an international trailblazer in cleantech policy, helping cement its reputation as a force for effective and just climate change mitigation.

Introducing the pilot procurement programme

By directly procuring small amounts of high-quality CDR from a diverse range of CDR methods, the EU can:

- demonstrate the viability of CDR as a family of methods,
- help identify the most promising suppliers,
- bring down costs,
- increase market confidence in CDR,
- catalyse private investment into CDR,
- familiarise policymakers with CDR and enshrine good practices for CDR procurement and use.

This policy brief proposes a **pilot procurement programme** designed to meet the needs of the CDR sector and bolster the contribution of carbon removal to EU climate targets.

Starting in 2025, the pilot procurement programme would procure permanent removals on behalf of the EU from suppliers based in the EU, with public funding to be matched or extended by private investments. It would support a portfolio of CDR methods and procure a range of volumes of removed carbon at different price points. Carbon Gap strongly advocates for allocating the available funding equally among the permanent CDR methods certified by the Carbon Removal and Carbon Farming (CRCF) legislation. Procured volumes of CDR would be counted towards the EU's nationally determined contribution (NDC) for 2035, due before COP30.

Type of removals

Permanent CDR
from EU suppliers

Launch date

2025, running for an
initial 3-year period

Procurement strategy

Portfolio of methods,
with offtake agreements
for Y volumes at X price

Maturity of method

TRL 6 or above

CRCF-certification

Bio-CCS, DACCS, Biochar.
Potentially enhanced rock
weathering & mineralisation

Budget

50 million from
dedicated Innovation Fund
call: Net Zero Technologies –
Pilots

Figure 1: Overview of the proposed pilot procurement programme

Operationalising the programme

Carbon Gap proposes a budget of EUR 50 million for the first round of procurement. Based on our estimates, this sum would constitute around 1% of the total deployment funding needs for CDR until 2030. Funding would come from the Innovation Fund, where existing provisions for pilot technologies could be used to launch a new call for CDR under [Net Zero Technologies – Pilots](#). We also provide specific criteria for project applicants in this policy brief. The call and the evaluation of project applicants would be managed by the Climate, Infrastructure and Environment Executive Agency (CINEA) in keeping with existing procedures.

If the Innovation Fund is the chosen funding source, awards could be made through a request for proposals (RfP) process. Successful applicants would enter into offtake agreements where the pilot fund agrees to buy all or a substantial portion of the CDR supplier's future output.

By providing initial funding to a select number of CDR suppliers in the EU, the pilot procurement programme would be the first step towards creating reliable demand for high-quality CDR. It would help bring a diverse range of CDR methods to the market and lower the investment risk for private investors, creating the conditions for the significant scale-up of CDR necessary to reach EU climate goals.



SETTING THE SCENE

Carbon dioxide removal (CDR) methods occupy a unique position in the cleantech space. CDR is necessary to reach EU climate goals, and policymakers are recognising that action must be taken now to develop and scale different methods to reach climate neutrality by 2050. This policy brief specifically considers the need for investment in the high quality, permanent and durable CDR methods required to address the climate crisis. A more detailed breakdown of the concept of permanent removals is included in Box 1.

The CDR sector also has significant potential as a new and dynamic source of economic growth. A study carried out by Boston Consulting Group found that CDR can be worth up to EUR 220 billion by 2050 in Europe alone, [creating up to 670,000 jobs](#). Whilst CDR is still a nascent sector, various technologies and methods are already being demonstrated at scale, with a [50 MtCO₂ pipeline](#) of permanent CDR announced by Europe-based project developers by 2030.

At the same time, the absence of a large-scale market means there is currently a limited 'business case' for high-quality, permanent carbon removal. Like other essential public services such as waste collection, CDR is necessary but not intrinsically profitable without policies that place a value on cleaning up carbon. The fledgling CDR market currently comprises a small number of highly profitable companies opting to pay for CDR largely for marketing purposes – this is not an adequate basis for a dynamic market involving [buyers from many sectors of the economy](#).

Accordingly, policy is necessary to help create market confidence and sustained demand. Just as regulation governs the management of other forms of waste, policymakers must integrate CDR into long-term climate governance to ensure that the required volumes of carbon will be removed from the atmosphere.

Box 1: Understanding permanent and durable CDR

Permanence and durability are key concepts in CDR. While many 'conventional' CDR methods, like forestation, are already happening at scale, they often lack permanence and durability. There is a need for investment in methods that keep CO₂ out of the atmosphere for sufficient timescales to effectively tackle climate change. The most permanent and durable CDR methods are often the most nascent and would benefit from public procurement.

Permanence is an ideal state in which carbon remains stored in perpetuity. We can compare real-world examples of carbon storage against this platinum standard. **Physical permanence** is approached when carbon is locked away from any reasonable exposure to reversal risk, such as mineralised carbon in deep geological reservoirs. Physical permanence relies on fundamental chemical and physical characteristics. **Contractual permanence** is the use of legal or financial mechanisms to ensure that any reversal is remediated.

Durability describes a physical characteristic of stored carbon. It indicates the risk of physical reversal of the stored carbon back into the atmosphere, expressed as an annual risk. Durability is a spectrum from very high (e.g., 0.01% annual reversal risk approximates to 10,000 years expected storage time) to low (e.g., [10% annual reversal risk approximates 10 years of expected storage](#)).

THE CASE FOR EU PROCUREMENT OF CDR

Most novel carbon removal suppliers are in the initial stages of deploying methods or are seeking to scale up their operations. The lion's share of durable removal methods still needs to reach commercial scale. Indeed, existing projects would not deliver any carbon removal if it were not for buyers making pre-purchases or entering into offtake agreements.

Advance agreements have been highly effective at bringing forward innovation in multiple technology sectors, including [vaccines, robotics, and computing](#). Pre-purchases and offtake agreements in the CDR sector constitute most of the demand for novel CDR, [outstripping delivered volumes in 2023](#).

The demand signal for carbon removal coming from the voluntary carbon market is insufficient. Indeed, it is dominated by one single company: Microsoft alone accounts for around 75% of all CDR purchases made to date and [91% of purchases made in Q2 2024](#). In 2023, there were just 89 buyers who purchased [more than 100 tonnes of permanent CDR](#). Fewer than 1% of companies with a science-based target have bought novel CDR, and [most novel CDR startups are yet to make a sale](#).

To address the issue of weak and unreliable demand coming from the voluntary market, jurisdictions such as the USA are already using government procurement to boost demand for a portfolio of CDR methods. So far, these efforts have successfully leveraged relatively small amounts of public funds to catalyse significant deployment of carbon removal in the USA, helping de-risk initial investments and crowding in private funding. Canada is seriously considering government procurement of CDR, having already made it possible under its federal Low Carbon Procurement Programme.

There are three reasons for the EU to seriously consider a similar programme that operates on the European level.

1 Delivering on EU climate targets

To deliver on its climate targets, the EU must significantly scale up its capacity to remove carbon from the atmosphere in this political mandate.

The EU has set ambitious climate targets for climate neutrality by 2050, and net negative emissions thereafter, which will require a contribution from a broad range of carbon removal methods. It has already set itself the target to permanently remove 5 MtCO₂ from the atmosphere per year by 2030 (in the Sustainable Carbon Cycles Communication). The 2040 Climate Target impact assessment also signalled the need for at least 114 MtCO₂ of permanent removals per year in 2050. At the current pace of CDR scale-up, the EU would fall short of its climate ambition, meaning urgent action is needed to help stimulate demand for carbon removal in the EU.

EU CDR procurement would send a strong political signal to CDR suppliers, private investors, and other global players, that the EU views carbon removal as an integral part of its broader climate mitigation strategy, signalling initiative and political leadership on CDR. It would also help enshrine good practices for the procurement and use of CDR.

2. Realising the economic potential of carbon removal

By clearly supporting CDR, the EU could drive domestic innovation and associated economic growth. The programme would generate home-grown expertise on CDR technology and investment, helping build capacity amongst policymakers and practitioners.

On top of providing clear climate benefits, the scaling up of CDR will generate thousands of new jobs and provide opportunities for the reskilling of workers currently working in the fossil fuel industry, contributing to a just transition.

A dedicated pilot programme would allow a European ecosystem to blossom, bringing together CDR start-ups with value chain players like investors, insurers and traders, component suppliers, logistics players and service providers.

By acting early, the EU could kickstart the demand for CDR and help crowd-in private funding. In this way, relatively small amounts of public funding can be leveraged to generate significant demand for CDR. Early lessons learned from the US procurement of CDR have shown that public money can have a multiplier effect, with private buyers matching the funds provided by the US government.

3. Gaining a competitive edge on CDR on the international stage

By acting quickly on procuring different types of CDR, the EU would clarify rules and help create market conditions within and beyond its borders, making it an interesting market for potential investors and CDR companies while positioning itself as an international policy leader.

The EU could set the standard for high-quality CDR in Europe and globally, boosting the integrity of the CDR sector and building trust. The Carbon Removals and Carbon Farming Regulation (CRCF) would provide the litmus test of what constitutes high-quality, permanent CDR, further supporting the CRCF as an international benchmark of quality.

Public procurement could also establish an EU competitive advantage in a strategic cleantech sector at a time when other jurisdictions are proceeding with various incentives for the domestic deployment of CDR. The EU already has significant potential to become a key hub for CDR and has significant R&D capacity and a highly skilled workforce across CDR methods.



FUNDING REQUIRED TO GET CDR FROM THE LAB TO THE FIELD

Insights from EU CDR companies

Carbon Gap has worked with the [Negative Emissions Platform](#) (NEP) to survey the funding needs of CDR suppliers active in the EU as part of our work to develop policies to boost demand for CDR.

The findings suggest that suppliers of different types of CDR consider public support critical for creating demand for carbon removal, which is currently lacking. Surveyed companies want to see financing for early deployment of CDR to start a learning cycle. This support could take the form of subsidies, tax incentives or public procurement. According to the surveyed suppliers, relatively low amounts of public funding could help unlock private project funding, creating a multiplier effect for initial public funding. Surveyed companies confirm that funding made available in the short term would have a significant positive impact on the deployment of CDR in the coming years, especially if the process for applying and potentially receiving such funding is relatively straightforward.

Estimating total funding needs

Carbon Gap has estimated the total funding needs for permanent CDR in the EU based on the average annual CDR needed between 2025–2030 to stay on track to reach EU climate targets. Table 1 shows the breakdown, including the contributions from the EU, member states and the private sector. Based on average prices across a portfolio of [CDR methods](#), around EUR 4.4 billion will be needed to deploy and scale up CDR in the EU in the next six years. The analysis was based on a similar exercise carried out in Canada by the NGO [Carbon Removal Canada](#).

Reflecting the need for a clear demand signal from the public sector, the EU and individual member states would be expected to provide the lion's share of the initial funding, to crowd-in much larger amounts of private investment in CDR over time.

The EU is expected to provide around EUR 2.05 billion until 2030, comparable to the EUR 2 billion foreseen for hydrogen projects under the EU Hydrogen Bank. Carbon Gap proposes to disburse the funding via two separate programmes: the Pilot Procurement Programme and the Carbon Clearing House. The Clearing House would act as a facilitator for the sale and purchase of carbon removal credits, aggregating supply and demand for CDR to help ensure that a functioning industry and bankable set of CDR projects can emerge in the EU.

This policy brief is focused on the pilot programme as a first foray into EU procurement of CDR, with the following sections exploring what such a programme could look like.

Repartition (EU, MS, private)	EUR (millions)	Percent
Total funding needed for CDR over next 6 years	€ 4,394	100%
EU		
Pilot procurement	€ 50	1.1%
Carbon Clearing House	€ 2,000	45.5%
Member states		
Denmark	€ 649	14.8%
Sweden	€ 660	15.0%
Others	€ 150	3.4%
France	€ 50	
Germany	€ 50	
The Netherlands	€ 50	
Private	€ 885	20.1%

Table 1: Breakdown of funding needs for CDR amongst EU, member states, and the private sector, as estimated by Carbon Gap

INTRODUCING THE PILOT PROCUREMENT PROGRAMME

EU procurement of carbon removal through a pilot procurement programme should be the first step in long-term efforts to boost demand for CDR. It should launch in 2025 or early 2026 and last for three years initially in line with the CDR procurement prize developed by the US Department of Energy. Depending on the success of the initial wave of procurement, the programme could be extended to 2030. Such longer-term procurement could either be done under the aegis of the procurement programme or through the Carbon Clearing House.*

A public procurement programme would allow the EU to influence the scope, scale and governance of early CDR deployment. Such a programme would:

- Create a single high-credibility counterparty that inspires trust and helps identify suitable CDR projects in the EU;
- Allow flexibility to procure a variety of high-durability CDR methods;
- Require limited public funding while catalysing private funding.

Whilst the pilot procurement programme will not be sufficient to meet the total funding needs of the CDR ecosystem, it will act as an important first step towards achieving a reliable and long-term demand signal for CDR in Europe. It would help identify CDR methods and suppliers that could form the basis of the supply of high-quality removals required for a viable long-term EU compliance mechanism for CDR.

Impact on the technology landscape

The public procurement scheme would bring projects currently at demonstration scale to full commercial operation across the EU. Funding would enable promising projects demonstrated at research scale to come forward in a real-world environment and showcase their potential at the operational scale, generating learnings that will allow technology and process refinement and ultimately, driving costs down.

Procurement funding is well suited to technologies at this stage because funding scales are more compatible with operator costs, allowing an array of projects to be tested rather than investing heavily in individual “winners”. Procurement establishes a near-term market for the product, whilst also demonstrating a policy direction, indicating that a broader market will emerge. This market signal helps attract investors and reduce the cost of capital, allowing scale-up and new projects to be brought forward. Therefore, once demonstration has taken place through the procurement process, project developers can look for large-scale investment to establish commercial-scale facilities, allowing the largest capital costs to be borne by private financiers.

**A Carbon Clearing House, acting as a clearing house and facilitator for the sale and purchase of carbon removal credits, could help ensure that a functioning industry and bankable set of CDR projects can emerge in the EU.*

Funding envelope and sources of funding

The funding envelope should be of sufficient size to motivate suppliers to apply, to demonstrate EU confidence in the commercial viability of CDR and to secure sufficient volumes of removed carbon from different methods. The estimated funding needs presented above and the size of comparable procurement programmes in the USA provide a starting point.

Carbon Gap proposes a budget of EUR 50 million for the first round of procurement. This amount would constitute around 1% of the total EU funding needs for CDR estimated by Carbon Gap. A minimal version of the programme would need an envelope of at least EUR 30 million to be able to contribute to its objectives.

There are a few possible sources of EU funding for the pilot procurement programme. The most immediate option would be the Innovation Fund, where existing provisions for pilot technologies could be used to launch a new call for CDR under the aegis of the [Net Zero Technologies – Pilots](#). The Innovation Fund was created to support the development and deployment of innovative technologies. Already in place, the fund would circumvent having to create a separate funding stream or entity.

If the Innovation Fund were to be chosen, DG CLIMA and DG RTD would launch the process to develop a new call for Net Zero Technologies focusing on project applications for CDR. The criteria for applicants would be developed in line with previous calls, with the addition of some CDR-specific criteria. Suggestions for such criteria are made later in this policy brief. The call and the evaluation of project applicants would be managed by CINEA in keeping with existing procedures.

If it is not possible to rely on the Innovation Fund, there are several alternative funding sources available for the Commission to consider. These include grants made available under the Resilience and Recovery Facility (RRF), [the LIFE sub-programme](#) on climate change mitigation and adaptation, and the Just Transition Fund.

Operationalising EU procurement of CDR

To streamline the deployment of CDR, the EU would need to open the accounting of its nationally determined contribution (NDC) to permanent CDR in its 2035 reporting, due before COP30. This way, the carbon removal credits acquired and delivered through the EU pilot procurement programme could count towards the EU NDC. They could potentially also account for the EU Commission emission reporting and organisational climate targets.

All credits procured through the programme should be certified using the methodology and classification set out in the CRCF, relying on a phased approach as specific methodologies for each CDR method are set out in delegated legislation. The first phase would start in 2026 with the procurement of DACCS, bio-CCS, and biochar credits.

A portfolio approach to CDR procurement

The procurement programme would use its initial funding to support a portfolio of different types of CDR methods, procuring varying volumes of removed carbon at different price points. Applying this portfolio approach is crucial to ensure that the EU generates sufficient capacity for different types of CDR to meet its short and long-term needs. This diversity can mitigate investment risk while avoiding sustainability risks from over-reliance on a single solution. A detailed breakdown of the various portfolios, costs, and planned volumes is available in a separate Excel sheet. Suppliers would apply to receive funding from the programme based on a method-specific price per tonne of CO₂ removed, to be delivered at the latest at the end of the programme.

To avoid competition between different CDR methods, projects would only compete with others from the same family of methods, with distinct budgets for each family in the portfolio. Suppliers would also need to prove that they already have interest from private buyers to match or extend public purchases. The US Government has chosen this approach in its procurement initiatives.

The graphs below show the composition of five hypothetical portfolios, which all assume a total budget of EUR 50 million to be disbursed in the initial phase of the programme. Alternative projections based on a minimal budget of EUR 30 million are also available in a separate document.

Carbon Gap strongly advocates for allocating available funding equally between eligible CDR families in the first wave of procurement– namely, those that can be certified using the CRCF at the time of launching the procurement process. Depending on the progress in developing delegated legislation for specific methods, this selection under the Certification Framework could cover an estimated 3-5 individual families by 2026.

By dividing the funding equally amongst eligible methods, there would be no risk of unduly favouring one or several methods, in keeping with the approach taken by existing US procurement initiatives. Subsequent waves of procurement could adopt different approaches based on lessons learned from the first pilot procurement programme.

The five figures presented below show the percentage of funding going to each method, the percentage by method of the total tonnage delivered by the portfolio and the average price per tonne of the portfolio.

As shown in Portfolio 2 below, equal repartition of available funding would allocate 20% of EUR 50 million to five different CDR methods, resulting in the procurement of close to 200 000 tonnes of CDR at an average price of EUR 255/tonne. To ensure all CDR methods are properly supported, Carbon Gap would advise the EU Commission to adopt a final portfolio akin to Portfolio 2 or 3.



Portfolio 1: BECCS focused

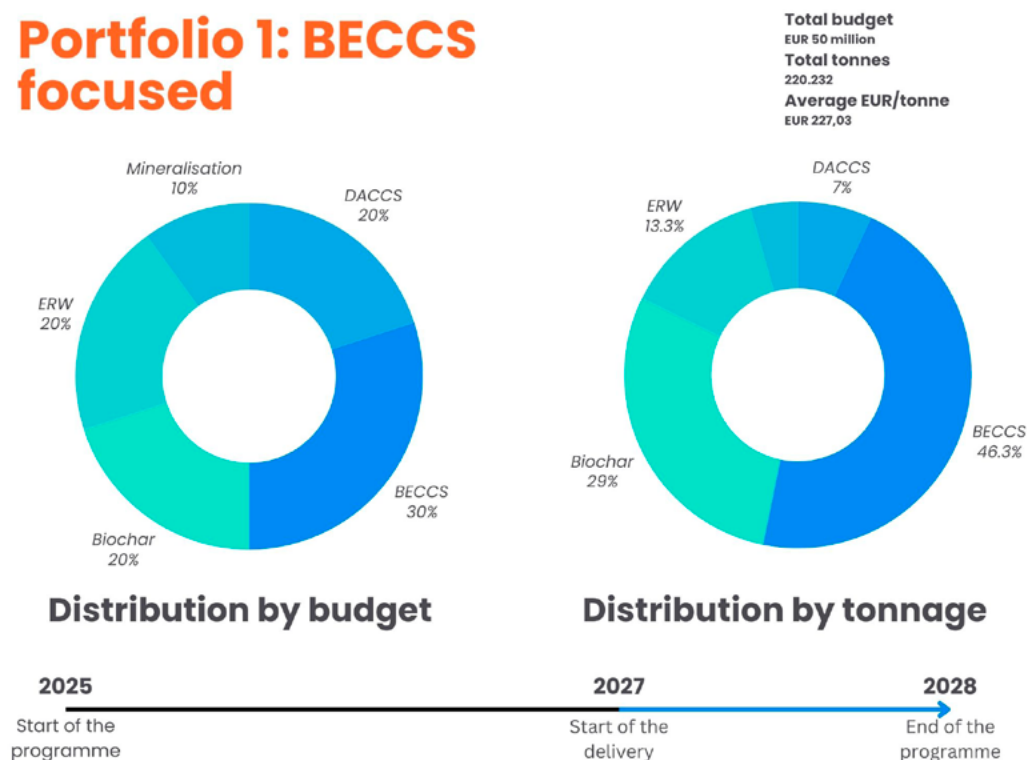


Figure 2: Overview of a possible BECCS-focused portfolio and associated CDR tonnage generated.

Portfolio 2: Equal money repartition

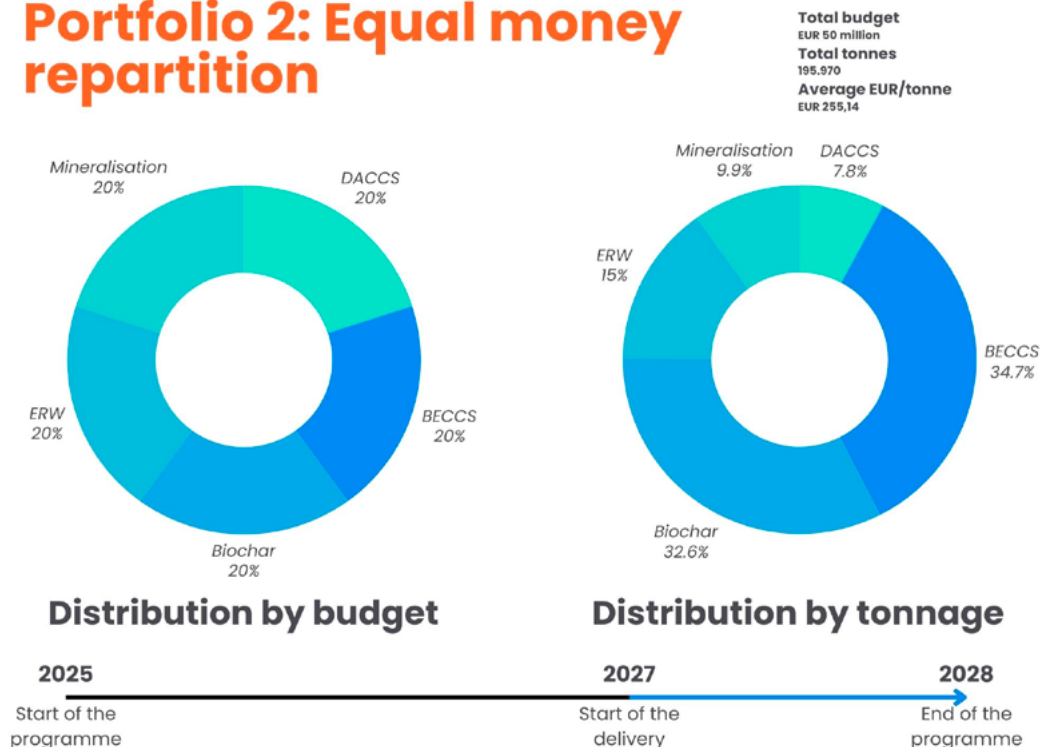


Figure 3: Overview of a possible “equal money repartition” portfolio and associated CDR tonnage generated.

Portfolio 3: Equal tonnage repartition

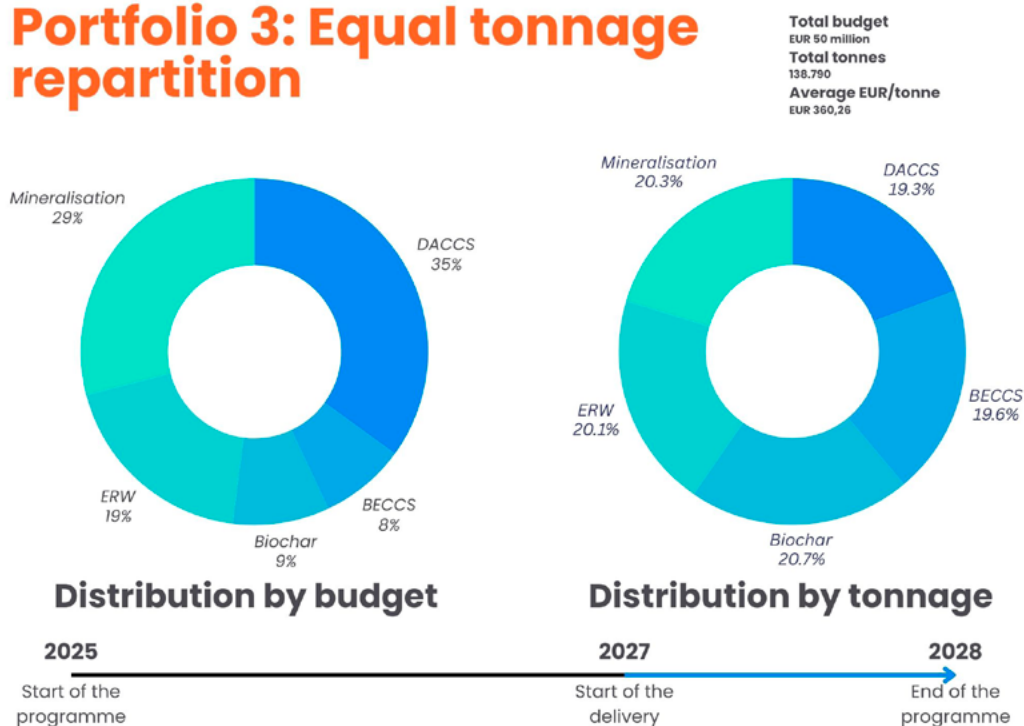


Figure 4: Overview of a possible “equal tonnage repartition” portfolio and associated costs per CDR method.

Portfolio 4: Only CRCF-compatible by 2025 divided by method

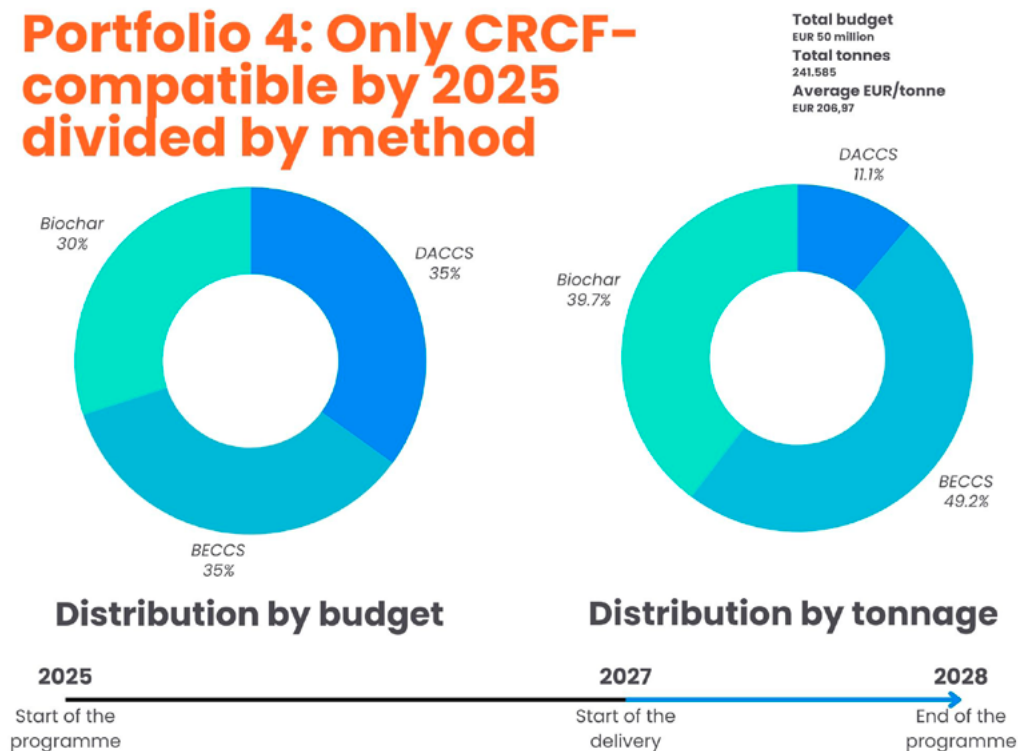


Figure 5: Overview of a possible procurement portfolio focused only on CDR methods that can be CRCF-certified by 2025, splitting these methods equally by budget, and the associated CDR tonnage generated.

Portfolio 5: Only CRCF-compatible by 2025 divided by tonnage

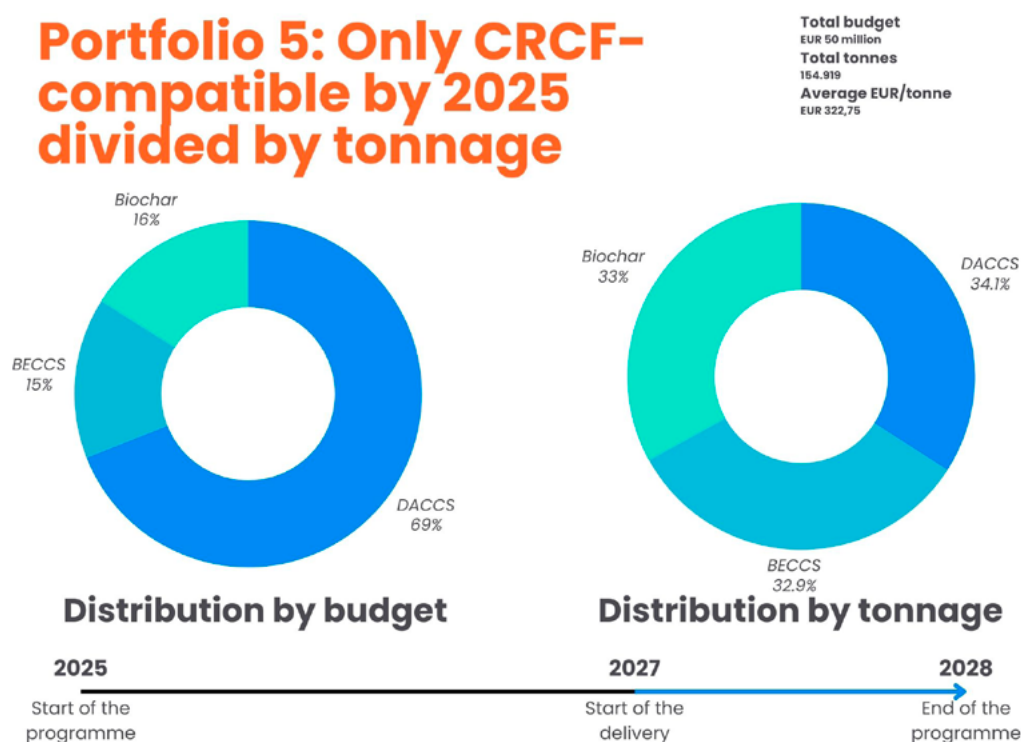


Figure 6: Overview of a possible procurement portfolio focused only on CDR methods that can be CRCF-certified by 2025, splitting these methods equally by tonnage, and the associated costs per CDR method.

Proposing a process for awarding offtake agreements

Various design options for the payment mechanism are possible. Awards could take the form of contracts for government offtake of generated CDR units (based on a levelised price per tonne). The scheme should cover capital and operational expenditures to give confidence to developers.

If the Innovation Fund is the chosen funding source, there are already provisions in place aimed at CDR, with awards made through a request for proposals (RfP) process or a competitive bid process (as in the case of hydrogen). These options for awarding funding would be appropriate to ensure fairness as well as transparency to enable price discovery. Given the nature of the CDR ecosystem in Europe, an RfP process might be preferable.

Based on general criteria set by the European Commission (DG CLIMA), CINEA would evaluate the funding applications and disburse funding to successful applicants. High-quality applications

that are not chosen can be shared with EU member states, to provide a shortlist for national governments seeking to fund CDR.

Successful applicants would enter into offtake agreements where the pilot fund agrees to buy all or a substantial portion of the CDR supplier's future output. A template for how to structure offtake agreements for CDR is provided by Frontier [here](#).

The volume of CDR to be delivered is part of the agreement and selected projects need to fulfil the expected amount by the end of the contract period. The timing for the disbursement of awarded funding would depend on the funding source used for the procurement programme and should strive to achieve two things: funding certainty for the CDR supplier and its backers and certainty as to the delivery of the procured volumes for the EU.

Carbon Gap

In conjunction with the launch of the programme, the European Commission could issue an official challenge to CDR suppliers and investors from the private market to match or surpass initial EU funding for specific projects/within specific buckets. This price matching would follow the same structure as the “Auction-as-a-service” mechanism set up under the Hydrogen Bank.

Scale-up potential of CDR methods

The potential of different CDR methods to scale and decrease in cost varies. Some methods sequestering carbon in natural sinks, such as forestry and soil carbon sequestration, are expected to see their prices rise in the future. This inflation is due to increased competition for land, increased risks of reversal due to climate change, and mismatch between supply and demand.

Novel CDR methods are likely to see significant drops in prices as they move up the learning curve and deployment rates go up.

Boston Consulting Group has produced a qualitative assessment of the scale up potential of 14 CDR methods across several dimensions: CO₂ removal potential, ease of MRV, readiness to scale and cost per tonne in 2050. Table 2 shows the results for DACCS, BECCS, enhanced rock weathering and biochar.

Given their respective scale-up potentials and associated costs, it will be necessary to procure carbon removal from a portfolio of methods to ensure that overall CDR capacity reaches the necessary scale in the EU by 2050.

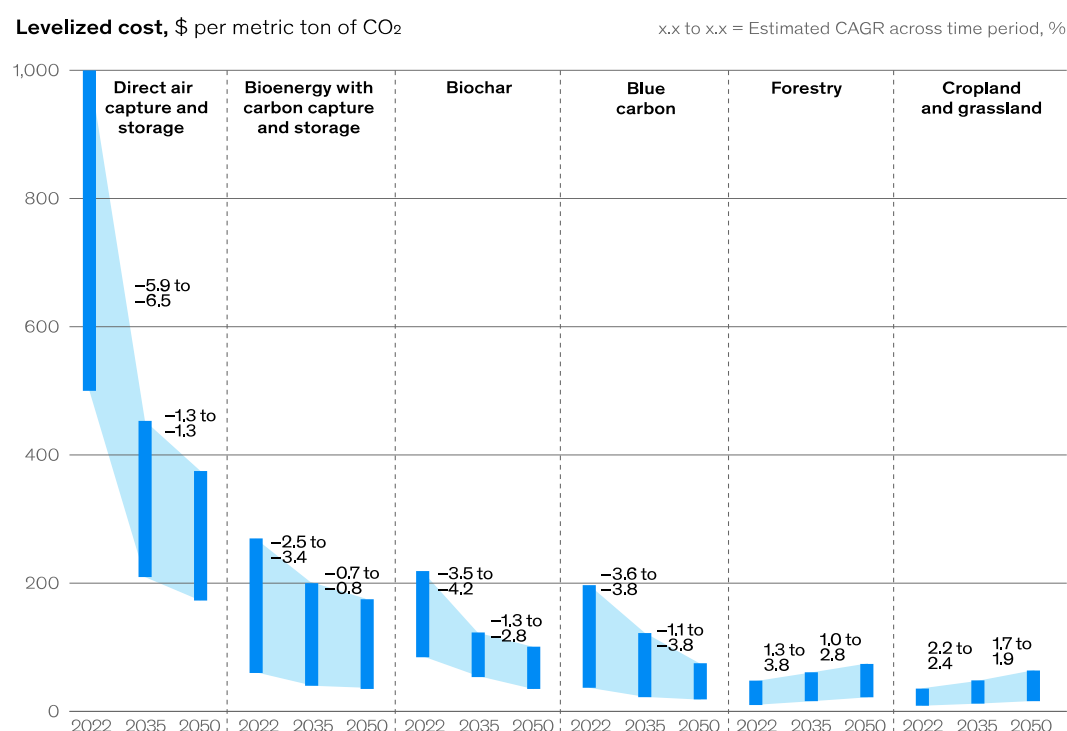


Figure 7 and Table 2: (above) Expected cost evolution of various CDR methods; (below) Scale-up potential of four CDR methods.

Source: McKinsey & Co. (2023) [Carbon removals: How to scale a new gigaton industry](#).

	DACCS	BECCS	Biochar	ERW
Removal potential	Large	Large	Moderate	Large
Ease of MRV	Easy	Easy	Medium	Hard
Readiness to scale	Medium	Medium	High	Medium
Cost in 2050 (EUR/tonne)	100 to 400	50 to 250	50 to 160	50 to 200

CDR-specific criteria for awarding a procurement contract

Specific criteria should be developed to evaluate applications to the pilot procurement programme. The emphasis should be on maximising the volumes of high-quality, permanent CDR procured from several different CDR suppliers across the EU. In practice, this focus means capitalising on projects that have a high likelihood of delivering CDR at a given price point, within a given period. At the same time, the CDR-specific criteria will need to sit alongside generic criteria that apply for projects funded by existing EU mechanisms such as the Innovation Fund or the Just Transition Fund.

Accordingly, the criteria specific to the pilot procurement programme concern (1) the nature of the grants and (2) the eligibility of prospective applicant CDR projects. Carbon Gap has proposed award criteria below.

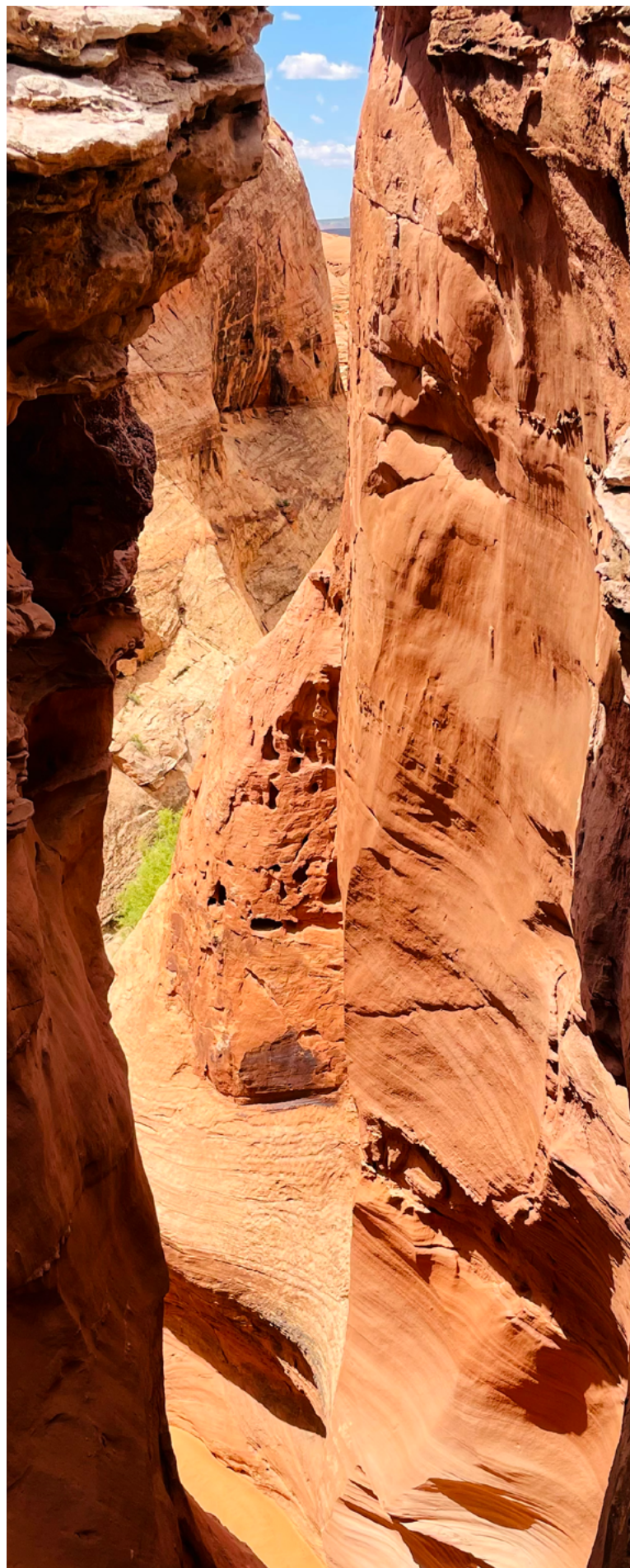
Nature of grants

- Balance amongst different buckets of CDR methods (for instance at least 1 project per bucket) as well as geographical balance within the Union;
- Maximum funding for a project: 3 million EUR/project;
- Types of CDR procured: CRCF-certified permanent removals;
- Co-purchasing by EU member states, public bodies, and/or private entities can be allowed (the practical details surrounding how that would work will require further consideration).

Nature of applicant

- Technology Readiness Level (TRL) must be above 6.
- The applicant must demonstrate the scale-up potential of their solution, including the expected future scale of operations and estimations of cost curve evolution.
- The applicant must demonstrate interest from private buyers to purchase their removals (through memoranda of understanding or more advanced contractual agreements).
- The applicant must have a viable business case and a business plan in place.
- The applicant must demonstrate the ability to deliver the tonnes of removed CO₂ at a specific price within 36 months.
- An applicant can be a recipient of other EU funding.
- Cost-effectiveness (ability to deliver CDR at a lower price point compared to other suppliers using the same method) should be proven.
- Project developers are responsible for demonstrating that they can provide or arrange for the full value chain required for permanent removals to take place (removal, transport, and permanent storage). Consortia can apply.
- The Commission and CINEA can help facilitate the creation of such value chains through ad hoc or structural gatherings of key players.

- The minimum tonnage required is 100 tonnes removed, with projects that can demonstrate significant capacity to scale to be favoured.
- Applicant CDR supplier has an expected viability/lifespan of at least five years based on financial runway and must demonstrate a business plan must be demonstrated.
- The entire CDR value chain must be based in the EU/potentially the EEA (European Economic Area). Non-EU companies can apply but only for projects that are fully based in the EU.
- Projects that can demonstrate that they contribute to a just transition through new employment opportunities, retraining or significant economic contributions to the local area should be favoured, with premiums for projects located in struggling geographical areas (NUTS 1-3) and for projects that help accelerate the transition away from fossil fuels.
- Co-benefits (for example from biochar and ERW (Enhanced Rock Weathering) serving as CDR and fertiliser) can be considered but cannot be the main activity of the applicant project.
- A plan for dealing with possible reversals should be in place, including stipulations for ensuring contractual permanence (see information box above).



CONCLUSIONS

The introduction of an EU pilot procurement programme would be an important first step towards deploying high-quality, permanent CDR at a large scale in this decade. It would help create demand for innovative CDR systems at a time when it is most needed, stimulate private investment in a promising cleantech sector, and set the EU on the path towards reaching its climate targets for 2050.

By acting quickly and decisively, the EU can emulate the success of US procurement drives whilst boosting its own domestic CDR capacity, setting the stage for longer-term efforts to create an EU compliance market for carbon removal. Seizing this opportunity would also cement the EU's leading role in championing responsible CDR, ensuring that it maintains an advantage against other frontrunner geographies, such as Canada, the UK and the US.

To make the most of its procurement programme, the EU should allocate an initial budget of EUR 50 million to be dispersed over three years starting in 2025. The funding should be split evenly across a portfolio of eligible methods delivering permanent CDR under the CRCF, which in an ideal scenario would include additional methods such as enhanced rock weathering (as set out in portfolio 3). If this financing is not possible, Carbon Gap would support allocating funding in line with the estimates for portfolio 5.

Lessons learned from the initial wave of procurement should help inform the development of longer-term policies to incentivise demand for CDR from the private sector, creating the conditions for a thriving EU CDR ecosystem that could make a significant contribution to the EU economy.



ABOUT US

The surplus of carbon dioxide currently present in the atmosphere will not be removed solely by reducing our emissions. To mitigate climate change, we must also remove CO₂ from the atmosphere and store it durably. Carbon Gap is a philanthropically funded, non-profit organisation focused on supporting Europe in responsibly scaling up carbon dioxide removal as an important complement to emissions reductions. We guide European decision-makers with independent and science-led advice.

www.carbongap.org

Carbon Gap

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