

THE CASE FOR CARBON REMOVAL IN THE EU INDUSTRIAL DECARBONISATION BANK: PRAGMATIC, POSSIBLE AND PIVOTAL

By Alexander Mäkelä and Eloisa Viloria



The blind spot in Europe's boldest climate bank

The EU is bringing together €100 billion for an umbrella initiative titled, the 'Industrial Decarbonisation Bank' (IDB) to finance a green industrial transition. That's big. It's smart. It's necessary. But unless the bank explicitly supports carbon dioxide removal (CDR), we're missing a critical piece of the net zero puzzle.

CDR isn't a fringe solution. It's a compliance tool. Every serious pathway to climate neutrality includes removals. From the IPCC to the EU's own Long-Term Strategy, the message is clear: we must remove carbon from the atmosphere to reach net zero and manage any overshoot. Without CDR, climate credibility becomes an accounting trick.

To be clear, CDR isn't about replacing mitigation. It's about completing the climate story.

The Decarbonisation Bank gives us a rare window to create dedicated, risk-tolerant financing for CDR. But the political and technical machinery moves fast.

If we don't embed CDR now—clearly, explicitly and operationally—it risks being locked out.

The stakes are structural

The EU Climate Law enshrines net zero by 2050. That means not only reducing emissions but also removing them—potentially up to 400–800 Mt CO₂ annually by mid-century. This goal isn't marginal. It's a central climate delivery mechanism.

The EU has led on policy and regulation. It's pioneering carbon certification. But when it comes to public finance, especially for removals, the pipeline is thin. Meanwhile, the U.S. has turbocharged its support, dedicating [\\$3.5 billion](#) to direct air capture hubs and offering generous tax credits of up to \$180 per ton of CO₂ removed, far surpassing Europe's modest investments ([€657 million from 2020–2023](#)). If we don't act now, Europe will not only fall behind, it will also outsource the very infrastructure needed to stabilise the climate. We don't need to build an entirely new system. But we do need to integrate CDR into what's already being designed.

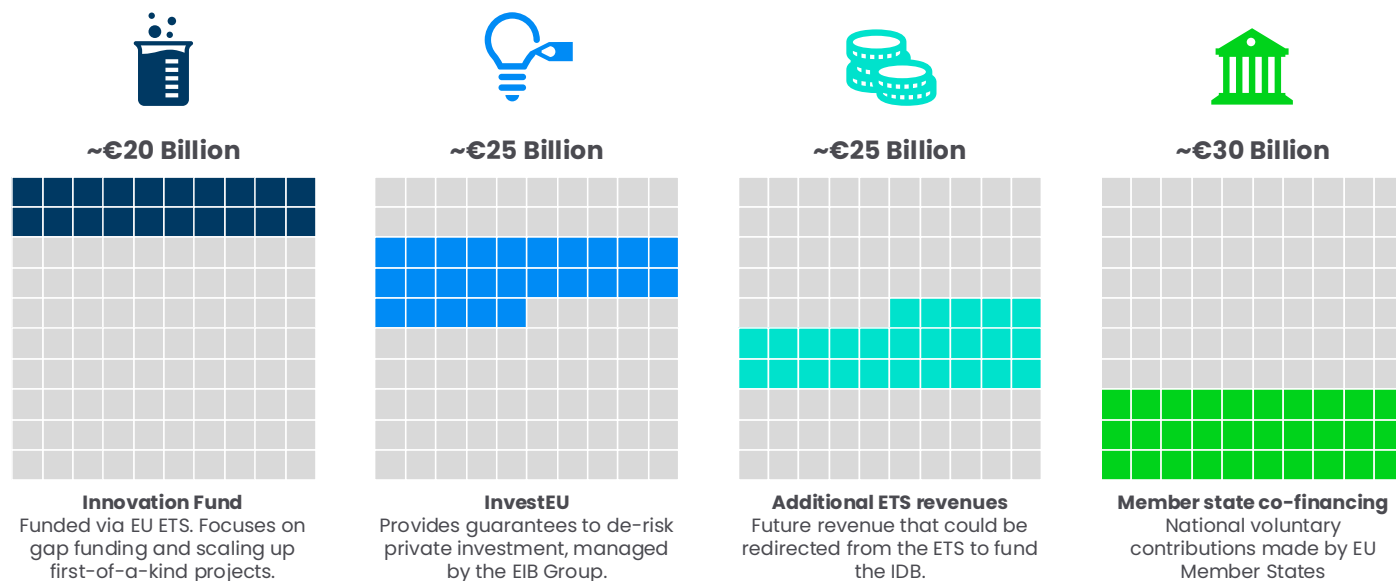
Carbon Gap

Where the money comes from—and why clarity matters

The €100 billion allocated to Industrial Decarbonisation bank is not one bucket. It's a structured portfolio, made up of different sources:

This architecture is not the problem. In fact, it's an asset. But **without explicit inclusion of CDR**, risk-averse decision-makers will default to what's familiar—electrification, hydrogen, and industrial efficiency. CDR will be politely nodded at, but functionally sidelined. CDR does not need special treatment but could use clear language and tailored financial instruments.

Inside the €100 Billion EU Industrial Decarbonisation Bank: Where's the money coming from?



Source: Approximate breakdown based on [Politico](#) reporting, drawing from additional European Commission documents.

Respecting institutional realities

Let's be honest: the Commission is navigating a complex political terrain. Multiple Directorate Generals (DGs), a cautious Council, tight state aid rules, and geopolitical turbulence crises. CDR is not asking for magic, but rather clarity—and to work within the grain of existing tools.

None of these institutions are antagonistic to CDR. But **without clear definitions and credible delivery mechanisms**, it's hard for them to prioritise these technologies. Right now, carbon removal represents just about **0.1% of the EU's total projected climate financing** for 2021–2027, and early-stage European startups are receiving only a tiny fraction of global investment, with **90% flowing instead to competitors** in the U.S., UK, and Canada. Clearer financial instruments can reverse this dynamic. Luckily, that's a solvable problem.



Who will actually run the EU's Industrial Decarbonisation Bank? (Spoilers, it's complicated...)

European Commission Executive Agency EU Financial Institutions



How to finance the uncharted

Let's face it—CDR is hard to fund. It lacks stable markets, long-term contracts, and risk profiles that institutional investors understand. But that's where the Decarbonisation Bank can step in—not to pick winners, but to lower barriers. Because the barriers are real.

Today, most companies exploring CDR aren't struggling with ambition—they're struggling with finance. And not because no one wants to invest. The problem is mismatched instruments and shallow market signals.

Right now, most CDR startups or project developers operate in a twilight zone where **procurement is small, voluntary buyers are inconsistent, and public procurement is still in its infancy**. At such early stages **cash flow is unpredictable**, which makes **debt financing nearly impossible**. Banks won't lend without visibility on revenue. Equity investors step in only when the returns justify the risk. And venture capital? It plays a role, but it's allergic to long time horizons and heavy infrastructure.

What we're left with is a chasm: promising CDR solutions with no way to get from pilot to scale because the **capital stack doesn't stack**.

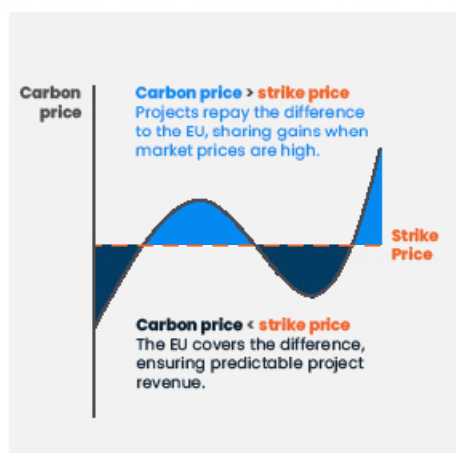
This chasm is where the Decarbonisation Bank becomes mission-critical. It can't build the entire capital structure—but it can **fill the early-stage financing gaps**, absorb risk others won't take, and most importantly, signal that **CDR is part of Europe's industrial future**.

And there's a bonus: **investing in CDR helps de-risk the rest of the carbon management value chain**. CDR projects—especially DACCS and BECCS—rely on the same CO₂ transport and storage infrastructure as Carbon Capture and Storage (CCS) and Carbon Capture and Utilisation (CCU). By scaling CDR, we increase utilisation of pipelines and storage hubs, improve infrastructure business cases, and share fixed costs across multiple sectors. In other words, **supporting CDR doesn't just support removals—it supports carbon management full stop**.

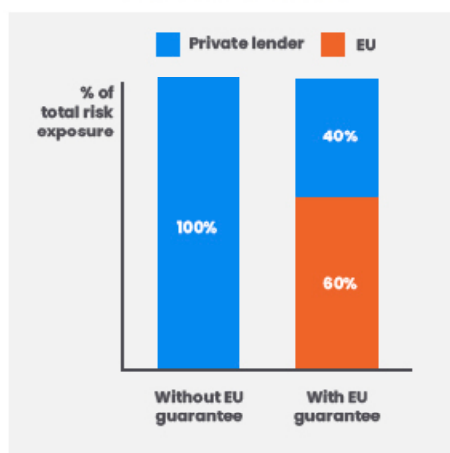
Carbon Gap

The European Union's Carbon Removal Funding Playbook: Three ways to invest smarter, not harder

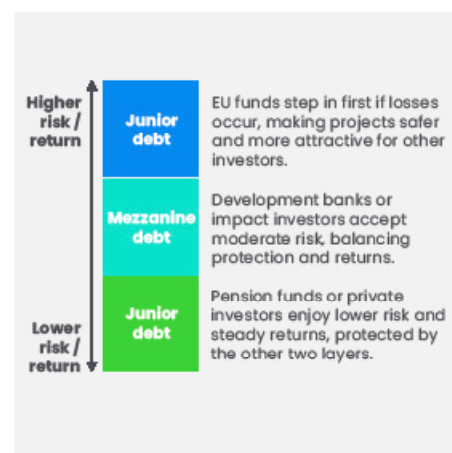
Carbon contracts for difference



Loan guarantees



Blended finance



There are the three financing tools that matter:

a) Carbon contracts for difference (CCfDs)

- **What it is:** The EU sets a guaranteed price for removing CO₂. If market prices fall short, the Bank pays the difference. If prices exceed the strike price, the developer pays the Bank.
- **Why it works:** It creates predictable revenue in an uncertain market. That makes CDR projects bankable.
- **Example use case:** A DACCS developer bids for a CCfD at €200/tCO₂. The ETS price is €85. The Bank pays €115 per ton removed. In time, if ETS rises, payments drop—or reverse. It's flexible, accountable, and scalable. A [similar mechanism](#) was instrumental in the UK, where contracts-for-difference rapidly scaled offshore wind, driving costs down by more than **65% in just six years**. The same approach could accelerate European CDR.

b) Loan guarantees

- **What it is:** The EU covers a share of potential losses if a project doesn't work out, typically 50–80%.
- **Why it works:** It reduces risk for lenders, lowers the cost of capital, and enables longer tenors.
- **Example use case:** A biochar facility seeking a €50m loan has no track record. With a 60% EU-backed guarantee, the bank agrees to finance it

at 3% interest instead of 9%. Public funds are only used in case of default, which is rare in structured infrastructure, carefully planned to manage financial and technical risks. In fact, [similar U.S. loan guarantees](#) achieved a remarkable success rate, stimulating private finance in renewable infrastructure, with default rates below 3% and net profits for taxpayers from loan interest. Early public backing attracted private banks, significantly expanding available funding.

c) Blended finance

- **What it is:** The Bank mixes grants or concessional capital with private investment in a layered structure.
- **Why it works:** Public capital takes the risky slice (e.g. first loss), attracting commercial investors to the safer layers.
- **Example use case:** A CDR scale-up fund pools €50m public investment with €150m private capital. If early-stage projects underperform, the EU takes the hit, preserving senior investor returns. The result? More capital, faster scale, distributed risk. In the U.S. [blended finance initiatives](#) consistently attract around four dollars of private investment for every public dollar spent. Public capital's role as a risk absorber is a key enabler for multiplying private sector participation.result? More capital, faster scale, distributed risk.

Follow the money: five concrete steps to fund European carbon removal properly

Carbon removal doesn't need special favors. It needs clarity, integration and practical steps to succeed. Here are five concrete actions to get us there:

1. Explicitly include CDR in the Bank's mandate

Clarify in the Industrial Decarbonisation Bank's core documents that engineered and nature-based removals are eligible categories. Reference alignment with the EU's Carbon Removal Carbon Farming (CRCF) Framework. Projects must clearly demonstrate verifiable, durable removals—not speculative offsets. Provide a straightforward eligibility checklist to avoid ambiguity.

2. Establish a CDR-dedicated pilot within the Bank

Set a clearly scoped, manageable-scale (€1–2bn) "Carbon Removal Pilot Facility" —aligned with expert recommendations for significant EU investment—to specifically test CCfDs, loan guarantees, and blended finance mechanisms. Establish clear evaluation milestones and timelines (12–24 months) to systematically collect data, assess performance, refine tools and inform scale-up. Structure it explicitly to enable rapid learning and improvement cycles—transparently publish results and share insights across European Commission, European Investment Bank and European Investment Fund.

3. Coordinate with existing instruments

Create clear operational pathways linking Horizon Europe (early R&D grants), the Innovation Fund (first-of-a-kind demos), InvestEU (scale-up financing), and European Investment Bank financing (commercial scale-up). Clarify in operational guidelines how a CDR project progresses sequentially through these instruments, ensuring transparent, efficient handoffs and reducing administrative friction for project developers.

4. Engage national development banks

Immediately launch a structured dialogue with major national development banks (KfW, Bpifrance, CDP, etc.) to align co-investment strategies and standardise

financing structures for CDR projects. Clearly define roles, leverage national funding envelopes and accelerate EU-wide infrastructure investment, including shared CO₂ transport and storage hubs (CDR can help de-risk and spread costs for wider carbon management infrastructure—it's a win-win solution).

5. Create an internal EU task force and financing toolkit for carbon removal

Establish a small, cross-institutional EU task force—with seconded experts across DG CLIMA, DG GROW, DG ECFIN, and the EIB—dedicated to carbon removal finance. Within 6–12 months, the task force should translate technical and economic knowledge into clear financing guidelines, standardised toolkits, and practical templates (covering CCfDs, guarantees, blended finance). Ensure accessible language and actionable formats to streamline processes, reduce administrative friction, and enhance institutional understanding and capacity.

These are pragmatic and achievable steps. But they need political attention now before the Bank's architecture is set in stone.

Final word: let's build the bank of the future

The Decarbonisation Bank is not just another financial tool. It's a signal of what Europe values—and how it intends to compete.

We're not proposing silver bullets. We're proposing durable scaffolding. That means funding both what avoids emissions and what removes them. It also means empowering institutions with clear guidance and treating CDR as a core component of industrial transformation; not a moonshot, not a side hustle, but a necessary counterpart to mitigation.

We don't need more ambition. We need better architecture.

Because if we fail to build the scaffolding now, we'll be left buying it from someone else later—at twice the cost, with none of the control.

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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.

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