PUBLISHED IN OCTOBER 2026

Closing the Climate Financing Gap

How revenue financing can unlock upfront capital against contracted demand.

A JOINT WHITE PAPER BY

InPlanet

CARBON REMOVAL PARTNERS

idemitsu

cfc

inplanet.earth

© 2026 INPLANET GMBH

CONTENTS

In this paper

	Executive Summary	03
01	The Climate Financing Gap	05
02	What Unlocks Capital? The Role of Demand and Risk Transfer	07
03	A Blueprint in Practice: The InPlanet Transaction	14
04	Voices of the Transaction	18
05	The Conditions for Broader Application	19
06	From One Transaction to a Financing Market	21
	About the Authors	22
	Get in Touch & References	23

AT A GLANCE

417×

growth in cumulative contracted durable carbon removal since January 2022: from 120,000 tonnes to 50 million tonnes as of September 2026.

64%

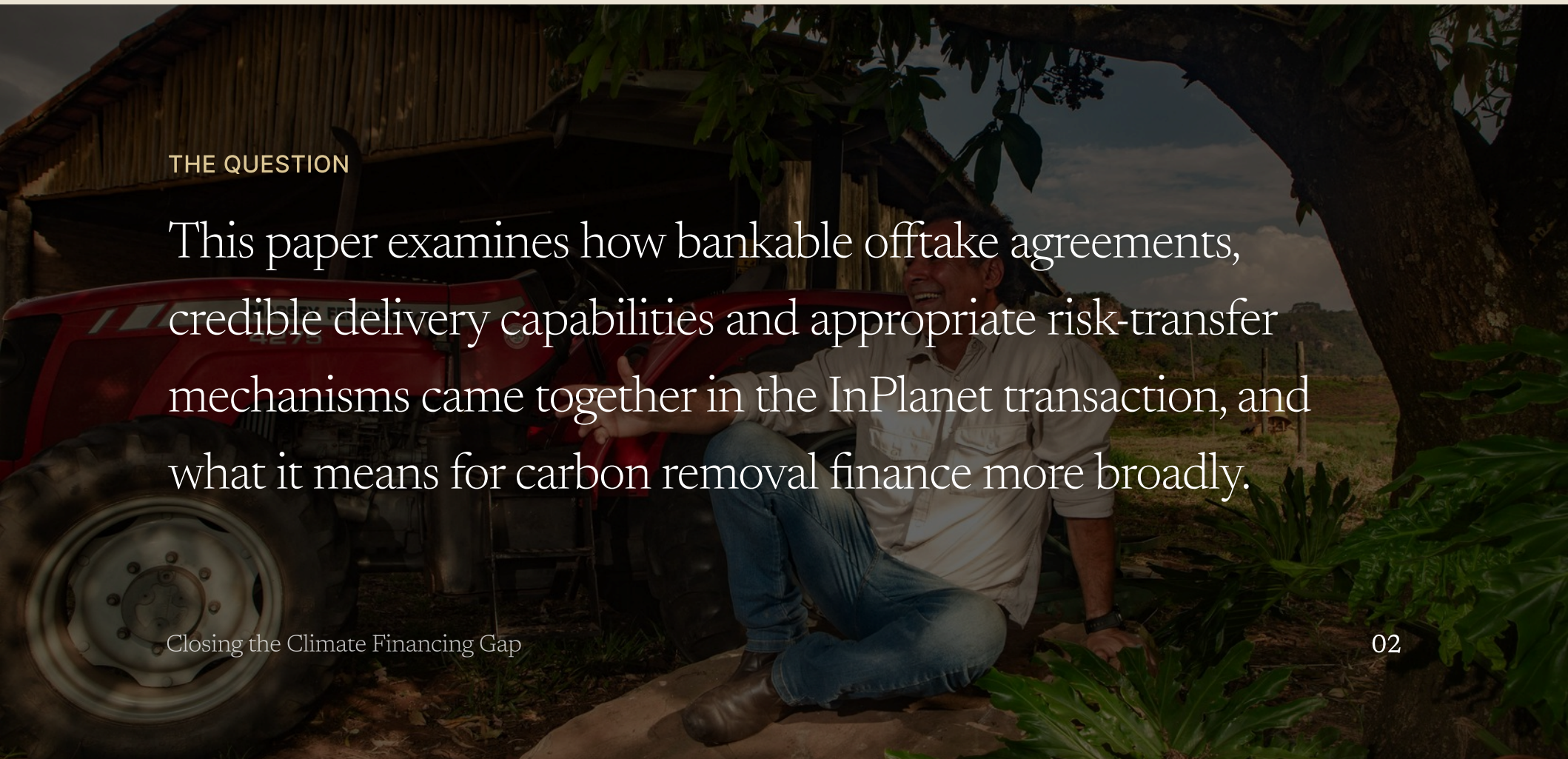
of carbon removal founders say access to project capital has worsened, in the 2026 CTVC and Elemental Impact founder survey (121 climate founders surveyed).

$1.8B

Frontier's advance market commitment for carbon removal, increased in June 2026.

$100B

Illustrative annual market created by removing one gigatonne a year at $100 per tonne.



THE QUESTION

This paper examines how bankable offtake agreements, credible delivery capabilities and appropriate risk-transfer mechanisms came together in the InPlanet transaction, and what it means for carbon removal finance more broadly.

EXECUTIVE SUMMARY

Demand for carbon dioxide removal is increasingly visible. Supply, however, remains constrained.

Demand for carbon dioxide removal (CDR) is increasingly visible. Voluntary buyers have committed billions of dollars through long-term purchase agreements, while several technologies are beginning to benefit from growing policy support and a clearer view of emerging compliance demand. Supply, however, remains constrained.

Building and scaling carbon removal projects takes time, and many developers are only now establishing an operational track record by delivering their first verified removals. Yet, despite growing demand and early proof that these technologies work, many suppliers still struggle to access the capital required to scale. In a 2026 survey of climate founders, 64% of carbon removal founders said access to project capital had worsened.[1]

The challenge is not a lack of visibility into future revenues: suppliers increasingly hold long-term offtake agreements. The issue is timing. Developers must invest in their projects today, while revenues arrive only once the carbon credits are delivered.

Revenue financing offers a way to bridge this gap. It gives suppliers access to non-dilutive financing against contracted future payments, reducing the need for repeated equity raises. It requires three things: bankable offtake agreements, credible delivery capabilities and appropriate risk-transfer mechanisms, so that lenders can finance against future cash flows.

WHAT REVENUE FINANCING REQUIRES

01

Bankable offtake agreements

A contractual obligation to pay a predetermined price on delivery, from a creditworthy buyer.

02

Credible delivery capabilities

A supplier with the operational capability and track record to deliver under that contract.

03

Appropriate risk-transfer mechanisms

Specialist underwriters who assess and assume selected risks, reducing lenders' exposure and enabling financing against future cash flows.

Together, these mechanisms increase the certainty of future revenues, enabling lenders to provide financing today against expected future cash flows.

1 CTVC and Elemental Impact, 2026 Founder Survey (August 28, 2026).

EXECUTIVE SUMMARY

The issue is timing. Developers must invest in their projects today, while revenues arrive only once the carbon credits are delivered.

This paper examines how these conditions came together for InPlanet. The significance of the transaction extends beyond the single deal: it shows that carbon removal projects are beginning to reach a level of maturity that enables financing structures previously out of reach.

What made it possible was alignment across the value chain: a supplier with an operational track record, a buyer committed to a long-term offtake, an insurer able to transfer selected risks and a lender willing to finance against future cash flows. Such alignment is not yet common in carbon removal, not least because many offtake agreements have not been designed with bankability in mind.

Structuring offtake agreements to support financing is in every party's interest. It gives suppliers access to the non-dilutive capital they need to scale deployment, and so raises the likelihood that contracted volumes are delivered.

IN THIS TRANSACTION

SUPPLIER
InPlanet

LENDER
idemitsu

INSURER
cfc

INTRODUCED BY
CARBON REMOVAL PARTNERS

BROKER
HOWDEN

ALIGNMENT ACROSS THE VALUE CHAIN

Four parties, one structure

SUPPLIER
InPlanet
with an operational track record

BUYER
Investment-grade offtaker
committed to a long-term offtake

INSURER
CFC
able to transfer selected risks

LENDER
Idemitsu Americas Holdings
willing to finance against future cash flows

InPlanet

The Climate Financing Gap

Projects that have moved beyond venture capital but are not yet ready for traditional infrastructure finance face a financing gap: the missing middle.

Equity is essential for funding early technology development and commercial validation. As carbon removal progresses toward large-scale deployment, financing growth exclusively through equity becomes costly and dilutive. Debt therefore becomes an increasingly important part of the capital stack. Yet, for many companies in the sector, debt financing remains difficult to access. Traditional lenders often require guarantees that developers cannot provide, and transaction sizes are frequently too small to justify the attention of sophisticated capital providers.

THE CAPITAL STACK

Debt

An increasingly important part of the capital stack as projects scale.

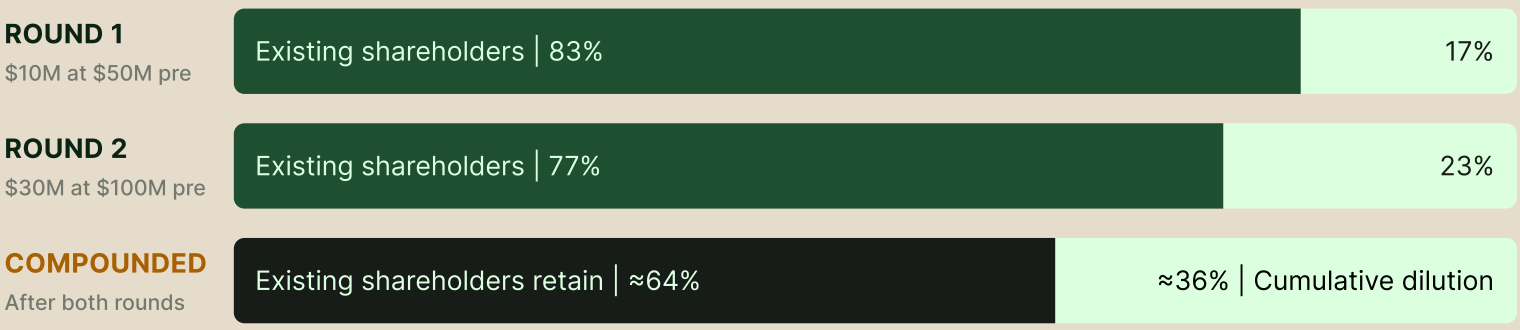
Equity

Essential for early technology development and commercial validation.

FIGURE 1 · EQUITY DILUTION ACROSS ROUNDS

Equity round after round becomes costly

A company valued at $50 million that raises $10 million for project deployment gives up roughly 17% of its ownership. If it later raises another $30 million at a $100 million pre-money valuation, existing shareholders are diluted by a further 23%. The effect compounds across successive rounds: after both raises, the original shareholders retain approximately 64% of the company. Equity remains essential for innovation, but financing deployment through equity round after round becomes costly for founders and investors alike.



Share of ownership given up in each round, illustrative.

InPlanet

The problem is most acute when technologies leave the laboratory.

Venture capital firms finance early-stage technology, thereby taking company risk. Later-stage capital providers, including infrastructure investors and banks, want proven assets, contracted revenues, and minimal technology risk. Their due diligence, legal and monitoring costs are largely fixed, so smaller lending facilities rarely justify the effort. Between these two worlds sit the projects themselves: a carbon-storage hub, a mineralization facility, a biochar plant, or an enhanced rock weathering deployment, each requiring significant capital to scale. This is the missing middle. In the 2026 CTVC and Elemental Impact founder survey,[2] 43% of climate founders said access to project capital had worsened; among carbon removal founders, the figure was 64%.

AT A GLANCE

43%

of climate founders say access to project capital has worsened

64%

of carbon removal founders say the same, showing how much more pronounced the problem is in carbon removal

THE MISSING MIDDLE FOR PROJECT FINANCING

Who finances what, and where projects fall through

EARLY STAGE	MISSING MIDDLE	LATER STAGE
Venture capital	No dedicated investor base	Infrastructure investors & banks
	PROJECTS WITH FUNDING GAPS Carbon-storage hub Mineralization facility Biochar plant Enhanced-weathering deployment	
Financing technology and company risk with equity becomes costly and dilutive at deployment scale.	Technologies with demonstrated technical viability frequently encounter a structural funding gap as they attempt to transition to commercial scale.	Want proven assets and contracted revenues, with minimal technology risk. Fixed diligence costs mean small investments rarely justify the effort.

2 CTVC and Elemental Impact, 2026 Founder Survey (August 28 2026).

InPlanet

What Unlocks Capital? The Role of Demand and Risk Transfer

The projects themselves sit in the gap between venture capital and infrastructure finance, a structural funding bottleneck known as the missing middle.

Since InPlanet's inception in 2022, the sector has evolved significantly. Durable carbon removal offtake commitments have grown from 120,000 tonnes in early 2022 to 50 million tonnes, as of September 2026,[3] and credible corporate buyers have entered the market.

Buyer coalitions such as Frontier, backed by players like Stripe, Google, Shopify, Salesforce, H&M, McKinsey, Workday and Anthropic, play an important role. Frontier's June 2026 increase of its advance market commitment to $1.8 billion further demonstrates the scale of corporate demand entering the market.[4] Voluntary demand has been accompanied by growing regulatory support. In the United States, the 45Q tax credit provides up to $85 per tonne for point-source carbon capture and up to $180 per tonne for Direct Air Capture (DAC); since the July 2025 amendments, the same rates apply whether the captured CO_2 is stored geologically or utilized. These incentives materially strengthen project cash flows.[5]

In Europe, the Commission's 2026 proposal to reform the EU Emissions Trading System would raise the cap by 250 million allowances, auctioned between 2031 and 2040, and use the proceeds to buy CRCF-certified permanent removals (BioCCS and DACCS).[6]

DEMAND SIGNALS

$1.8B

Frontier's advance market commitment, backed by players like Stripe, Google, Shopify, Salesforce, H&M, McKinsey, Workday and Anthropic

$85-$180

per tonne under the US 45Q tax credit: point-source capture and direct air capture, respectively

250 Mt

of permanent removals the European Commission's 2026 ETS reform proposal would fund between 2031 and 2040

3 CDR.fyi, Carbon Removal Market Data, accessed September 16 2026.

4 Frontier, "$915M in new funding to drive carbon removal's next phase of growth," June 2026.

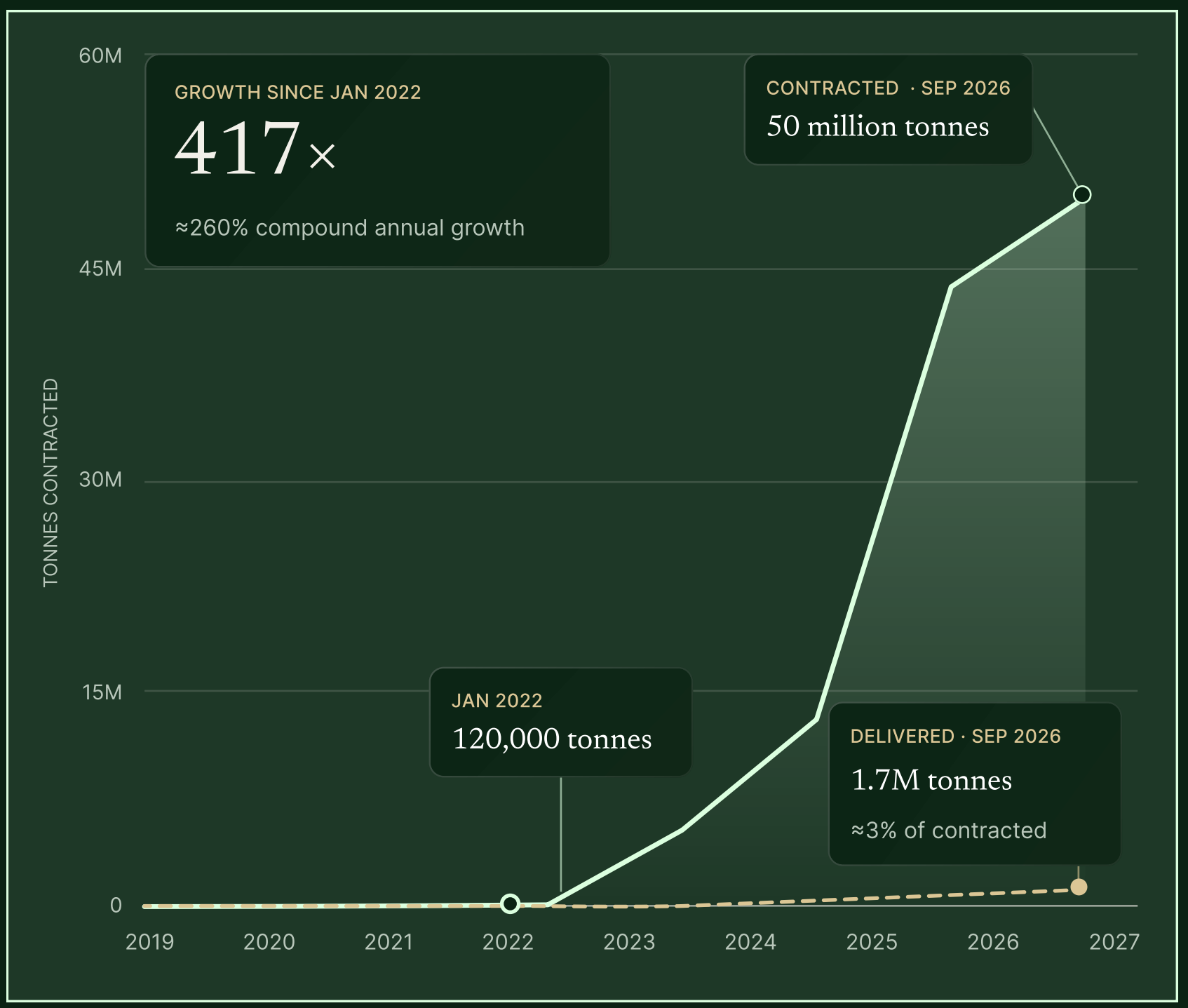
5 One Big Beautiful Bill Act, Pub. L. No. 119-21, § 70522, signed July 4 2025, accessed October 13 2026.

6 European Commission, Proposal to amend the EU ETS Directive (COM(2026) 616 final), July 17, 2026.

FIGURE 2 · DEMAND

Contracted demand has outrun delivery by roughly 30 to 1

Durable carbon removal offtake commitments have grown from 120,000 tonnes in early 2022 to 50 million tonnes as of September 2026, as a small number of very large corporate buyers have scaled their commitments and new buyers have entered the market. Yet only around 1.7 million tonnes have been delivered by that date, just 3% of the volume contracted.



Cumulative contracted and delivered durable CDR tonnes, 2019 to 2026, on the same axis.Compound annual growth calculated from January 2022 to September 2026.

Source: CDR.fyi market data (cdr.fyi), accessed September 16, 2026; values approximate.[3]

FIGURE 3 · NO NET ZERO WITHOUT CARBON REMOVAL

Novel CDR pathways play an important role in reaching net zero

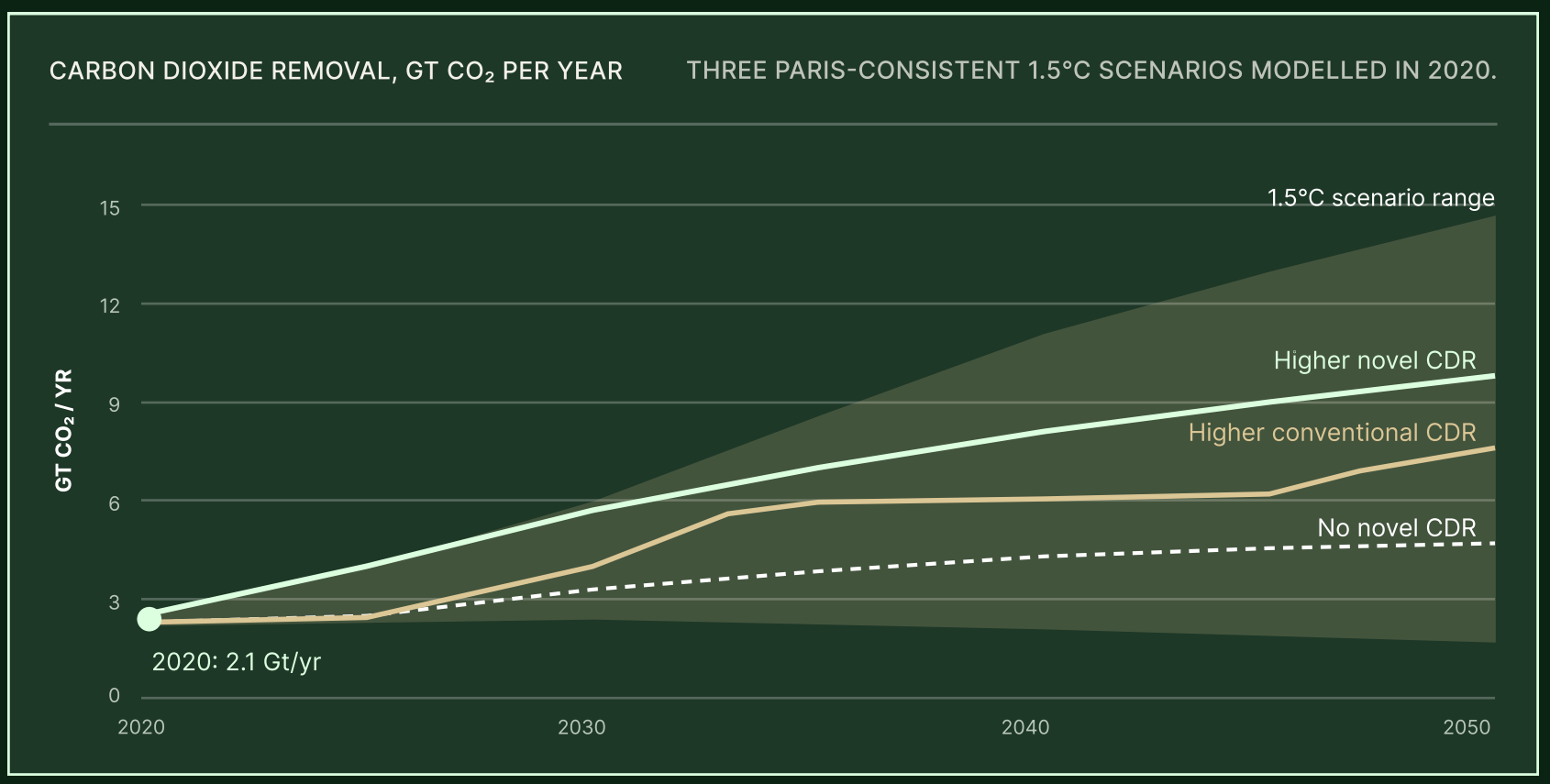
Reaching the Paris Agreement's 1.5°C goal will require both major emissions reductions and large-scale carbon dioxide removal. Novel carbon dioxide removal (CDR) technologies will be essential to delivering the volumes needed.

CONVENTIONAL CDR

Established land-based methods include afforestation, reforestation and soil carbon management. However, carbon storage can be reversed by fire, drought or land-use change, while supply is constrained by land availability and the limited durability of these approaches.

NOVEL CDR

Newer methods that store carbon more durably include enhanced rock weathering, biochar, bioenergy with carbon capture and storage (BECCS), direct air capture (DAC) and ocean-based carbon removal.. Today, these approaches account for only a small share of total CDR, but they have significant potential to scale.



Higher novel CDR · ≈10 Gt

Novel methods scale fastest and carry the largest share of removal by 2050.

Higher conventional CDR · ≈7.5 Gt

Removal is led by land-based methods, with a smaller novel contribution.

No novel CDR · ≈5 Gt

Conventional methods only. With the least removal, emissions must fall earliest and most steeply.

BY 2050, HIGHER NOVEL CDR

≈10 Gt

removed each year in the higher novel CDR scenario

AT $100 PER TONNE

≈$1 trillion

a year, the implied annual market at that volume

Path to net zero: shaded area shows the range across Paris-consistent 1.5°C scenarios; the three lines are scenarios that meet criteria suggesting they do not exceed sustainability limits in 2050.[7]

7 Smith, S. M., et al. (eds.), The State of Carbon Dioxide Removal, 2nd edition (2024).

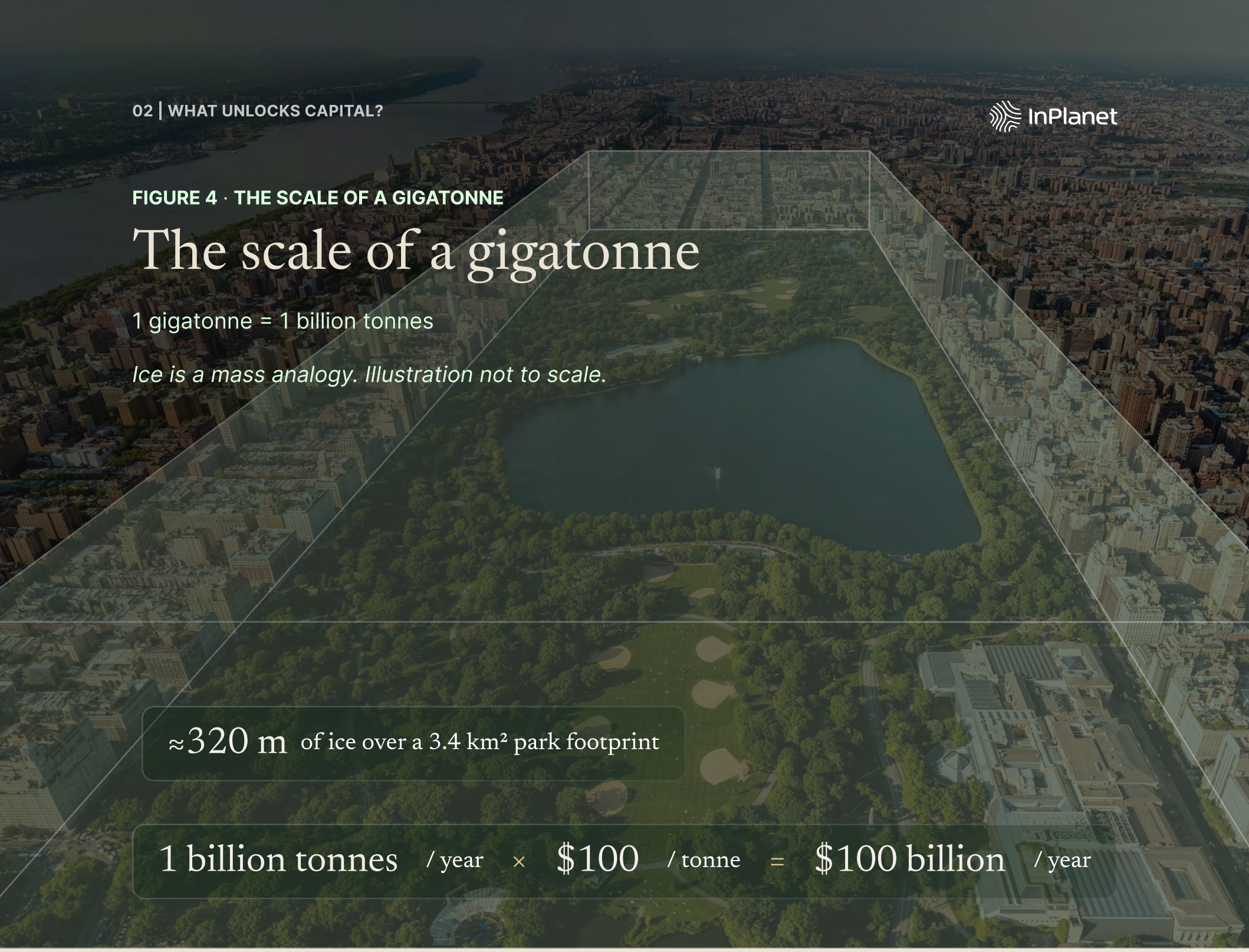


FIGURE 4 · THE SCALE OF A GIGATONNE

The scale of a gigatonne

1 gigatonne = 1 billion tonnes

Ice is a mass analogy. Illustration not to scale.

Reaching net zero requires deep emissions cuts alongside carbon removal to counterbalance residual emissions. Experts estimate that reaching net zero will require carbon dioxide removal at a multi-gigatonne annual scale. One gigatonne is one billion tonnes. To visualize the physical scale, one gigatonne of ice would fill New York's Central Park to a height of approximately 320 meters, higher than the Rockefeller Center.[8] The financial scale is similarly significant. Even the removal of one gigatonne annually, valued at an illustrative $100 per tonne, would represent a $100 billion annual market.

AT A GLANCE

≈10×

By 2050, the volume represented by this ice block would need to be removed every year under the higher novel CDR scenario.

8 NASA Science Editorial Team (March 9 2020), Visualizing the quantities of climate change.

In more mature industries, demand signals of this kind would be enough to unlock financing.

In carbon removal, however, demand is growing while physical deployment remains orders of magnitude short. Why, then, does debt remain out of reach for most companies?

To finance the scale-up, several non-dilutive instruments can support companies at different stages of maturity, each suited to a particular risk profile. Before turning to revenue financing, it is worth briefly reviewing the alternatives.

NON-DILUTIVE INSTRUMENTS

What each one finances, and where it falls short

Grants

Grants from governments foundations and philanthropic donors play a critical role in supporting research, development and first deployments. They can accelerate early progress, but they were never intended to provide the bulk of capital required to build a gigatonne-scale industry.

Venture debt

Venture debt is a form of debt financing for high-growth companies, where repayment is typically supported by a future equity raise. Because lenders accept higher business, technology, and execution risk than traditional banks, venture debt typically carries higher borrowing costs and may include equity-linked features such as warrants.[9]

Asset-backed finance

Asset-backed finance lends against physical assets that serve as collateral. It works best when those assets have a proven operating record, predictable residual values and a liquid secondary market: vehicles or IT equipment, for instance. Some components of a carbon removal project may fit that description, but specialized equipment can have a limited operating history or secondary market, reducing its attractiveness as collateral. Moreover, some carbon removal pathways, particularly asset-light models such as enhanced rock weathering and certain ocean-based approaches, are driven primarily by operating expenditure rather than large investments in financeable fixed assets, leaving comparatively little to lend against.

THE FOCUS OF THIS PAPER

Revenue financing

This paper focuses on revenue financing. At its core, the structure converts contracted future revenues into capital the supplier can use today.

9 European Investment Bank, "What is venture debt?", May 25 2022

THE FOCUS OF THIS PAPER

Revenue financing

Several elements must come together. First, a long-term bankable offtake agreement that creates a contractual payment obligation from a creditworthy buyer. Second, a supplier with the operational capability and track record to deliver under that contract. Third, insurance that transfers selected risks to specialist underwriters, which strengthens the business case for the lender and for other financial institutions. If banks lend capital, they must hold regulatory capital against the risks they assume.

Generally, the riskier an exposure is, the more regulatory capital a bank is required to hold against it. A Basel-compliant insurance policy, such as the Carbon Lender Non-Payment Insurance, can reduce the capital a lender must hold against an exposure compared with an uninsured position, thereby freeing up balance sheet capacity. Insurance therefore does more than reduce the lender's risk: it improves the efficiency of the structure, and should make revenue financing more attractive to banks.

FIGURE 5 · THE CONVERSION

THE STRUCTURE

Revenue financing

A lender advances capital secured by the offtake contract and repaid as credits are delivered.

← IN 1–2 YEARS

Contracted future revenues

Suppliers are paid when the credits are delivered to the buyer, typically 12–24 months after the contract is signed.

→ UP FRONT, AT DEPLOYMENT

Capital to deploy at the start

Financing provides upfront capital to cover deployment and operating costs when work begins, rather than waiting for credits to be delivered.

THREE ELEMENTS THAT MUST COME TOGETHER

01

A bankable offtake

A long-term take-or-pay contract with a creditworthy buyer, at a fixed price and with tightly limited termination rights.

02

A credible supplier

The operational capability and track record to deliver the contracted volumes on schedule.

03

An insured risk layer

Insurance that moves selected risks to specialist underwriters, so the lender is not left carrying them.

The InPlanet transaction shows how these elements came together in practice, and offers a blueprint for how other carbon removal projects can access debt as the market matures.

RISK TRANSFER

Carbon insurance products available today

CFC is a specialist insurer with a background in emerging risk and a global market leader in cyber insurance. Headquartered in London with offices across Europe, North America, Australia and Asia, CFC has over 1,000 employees and serves over 250,000 businesses in more than 100 countries.

Its carbon insurance products are designed to protect stakeholders across the carbon value chain and help unlock investment in high-quality carbon projects. Backed by AA-rated underwriting capital, CFC can provide limits of up to $40 million per project with policy terms of up to seven years, and works with project developers, investors, lenders and trading houses. Its modular policies can be tailored to a range of transaction structures and stakeholder requirements.[10]

cfc

up to

$40M

limits per project

7 yrs

policy terms of up to seven years

AA

rated underwriting capital

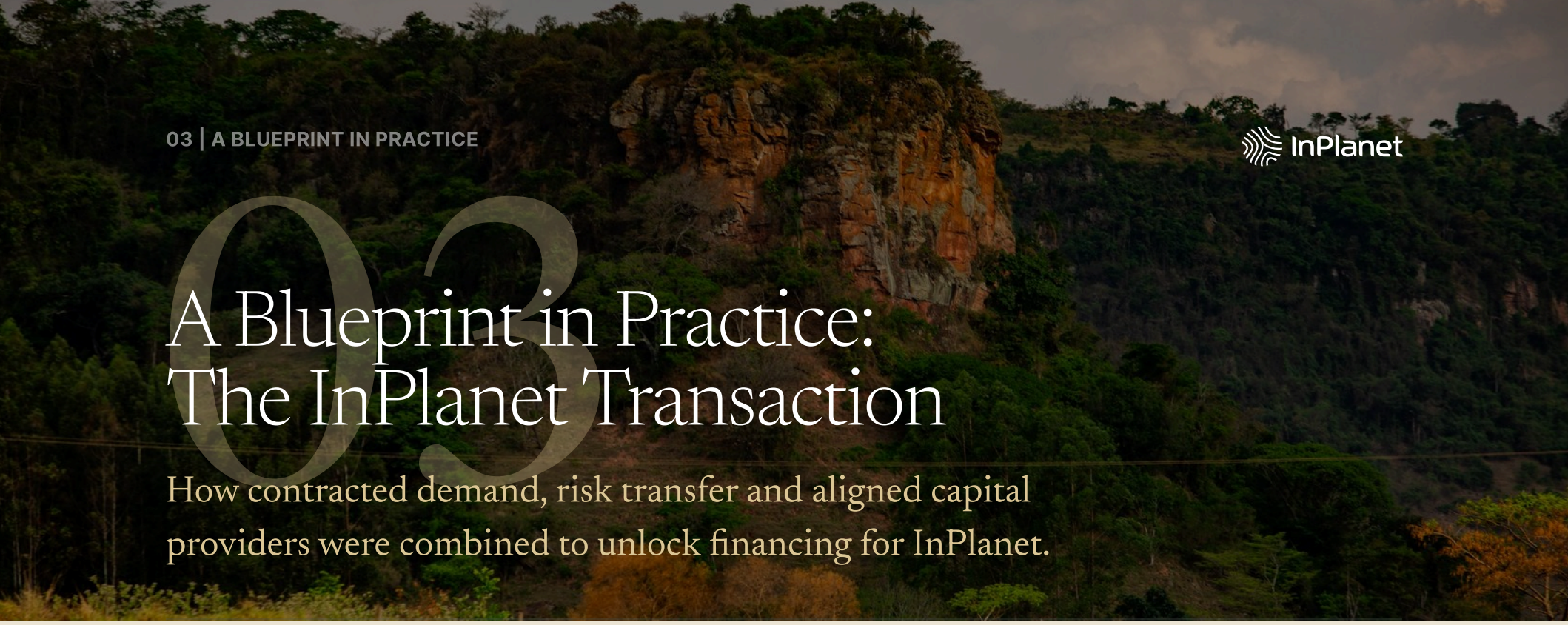
250k+

businesses served in 100+ countries

PRODUCT RANGE

Carbon Delivery Insurance USED IN THIS TRANSACTION	Protects stakeholders against losses caused by a delivery shortfall on an all-risks basis by paying a pre-agreed amount for each non-delivered credit. Suitable for prepayment arrangements, pay-on-delivery offtakes and certain project finance transactions.
Carbon Cancellation Insurance	Protects project developers or carbon credit owners against losses caused by reversal or invalidation. It can enhance returns for project developers and investors by replacing buffer pool contributions in a cost-efficient manner.
Carbon Lender Non-Payment Insurance	Protects lenders against the risk of non-payment on an all-risks basis. Suitable for project finance transactions where repayments are secured against future offtake revenues. This product can provide capital relief to lenders under Basel regulations.
CORSIA Guarantee Insurance	Helps project developers receive the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) label on issued credits by protecting them against the risk of Corresponding Adjustment failure.

10 CFC, Carbon Insurance (cfc.com), accessed September 16, 2026.



A Blueprint in Practice: The InPlanet Transaction

How contracted demand, risk transfer and aligned capital providers were combined to unlock financing for InPlanet.

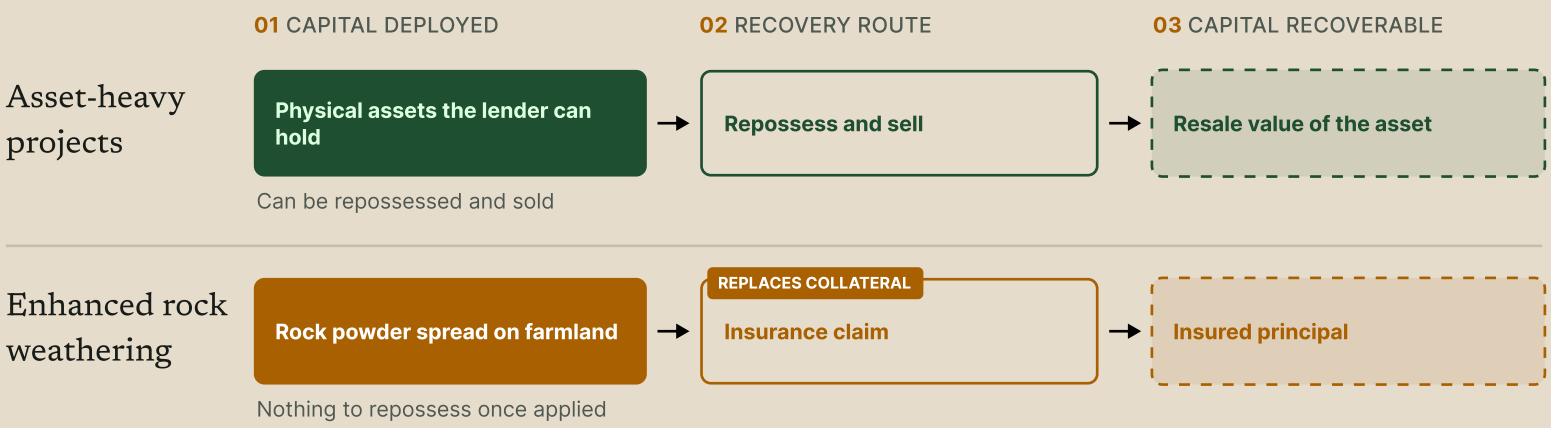
Revenue financing is beginning to emerge as a practical tool for the carbon removal market.

The InPlanet transaction demonstrates how contracted demand, risk-transfer mechanisms, and aligned capital providers can be combined to unlock financing for carbon removal. This section examines how the pieces came together and what other market participants can take from it.

Unlike asset-heavy projects, ERW offers lenders little physical collateral. Most of the capital goes on rock powder, logistics and measurement, none of which can be recovered or repossessed once the rock is in the field.

FIGURE 6 · WHAT A LENDER CAN RECOVER

Same capital deployed, illustrative



Asset-heavy lenders recover capital by repossessing the asset. ERW leaves no asset to repossess once the rock is in the field, so insurance takes the place of collateral.

Risk-transfer mechanisms bridge the gap for mature, scale-ready technologies that lack physical collateral.

InPlanet

ERW 101

How enhanced rock weathering removes carbon

Enhanced Rock Weathering (ERW) accelerates a natural process that has removed CO_2 from the atmosphere for millions of years. Silicate rocks such as basalt are ground into a fine powder, increasing their surface area, and spread on agricultural land. There, they react with rainwater and CO_2, converting the carbon into bicarbonate, a stable form of dissolved carbon. Rivers then carry the bicarbonate to the ocean, the final carbon sink, where it can remain safely stored for more than 10,000 years.

MODEL INSIGHT

ERW requires significant spending on rock powder, field application, and measurements before carbon credits are issued and sold. The cost structure of ERW makes it difficult to finance against real assets, making revenue financing crucial for scaling.

Essentially, there are four stages of spend before one of revenue.

FIGURE 7 · ERW LIFECYCLE AND CASH FLOWS

OPEX / Cost · Revenue · None

Soil & Rock Analysis	Field Application	Weathering Phase	MRV Validation	Credit Delivery	Permanent Storage
~2–4 weeks	Days–weeks	3–12 months	~2–4 weeks	~2–4 weeks	>10,000 years durability
OPEX and CAPEX	OPEX	OPEX	OPEX	REVENUE	NONE
Rock powder and characterization costs	Logistics & feedstock	Primary dissolution period. Steady state field kinetics and baseline soil chemical transformations occur throughout.	Analytical monitoring, reporting and verification (MRV) costs	Carbon credit sales	No direct cash flow
Day 0	Week 4	Longest active phase	Month 13	Month 14	>1,000 years

*OPEX Model Insight: **ERW is an OPEX-driven model: CAPEX is minimal to negligible.** There is no requirement for proprietary infrastructure. Currently, most of the equipment needed, such as mills and transport and spreading machinery, is supplied by third-party contractors.*

From rock to revenue: the ERW process and its cash flows. Spending on rock powder, field application and measurement precedes credit issuance; revenue arrives only on delivery.

TRACK RECORD

The InPlanet story

InPlanet was founded in 2022 with the ambition of scaling ERW in Brazil. Carbon Removal Partners' (CRP) fund was among the company's very first supporters, attracted by both the potential of the pathway and the strength of the founding team.

Within two years, in December 2024, InPlanet achieved the world's first issuance of independently verified ERW carbon removal credits. This was more than a company milestone: it demonstrated for the first time that the complete ERW value chain, from deployment and monitoring to verification and issuance, could be successfully executed.

That track record helped attract commercial demand, and the company signed a long-term offtake agreement with an investment-grade buyer, giving the company clear visibility into future revenues. CRP has supported InPlanet's commercial development, including introductions and negotiation support on the offtake agreement. Two of the three components were now in place: a proven operating record and a binding offtake.

At the same time, specialized carbon insurance was beginning to emerge. Through its ongoing engagement with both InPlanet and Idemitsu Americas Holdings (IAH), a wholly owned subsidiary of Idemitsu Kosan Co.,Ltd. (Idemitsu) that has been strategically investing in carbon dioxide removal as part of their carbon neutrality in 2050 goal, CRP saw an opportunity to bring together parties with complementary objectives, and introduced Idemitsu and CFC to the process. For Idemitsu, the transaction was also a chance to help pioneer new financing approaches for the CDR sector, and to deepen its experience of the market by working alongside InPlanet and the other partners. Howden Broking Group also provided broking services to InPlanet for this transaction.

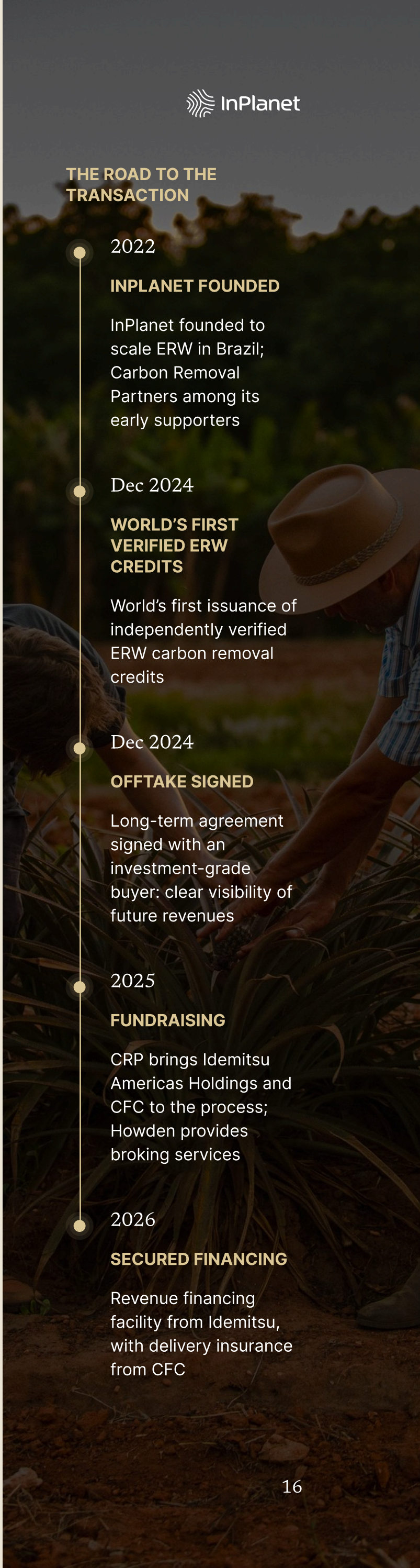
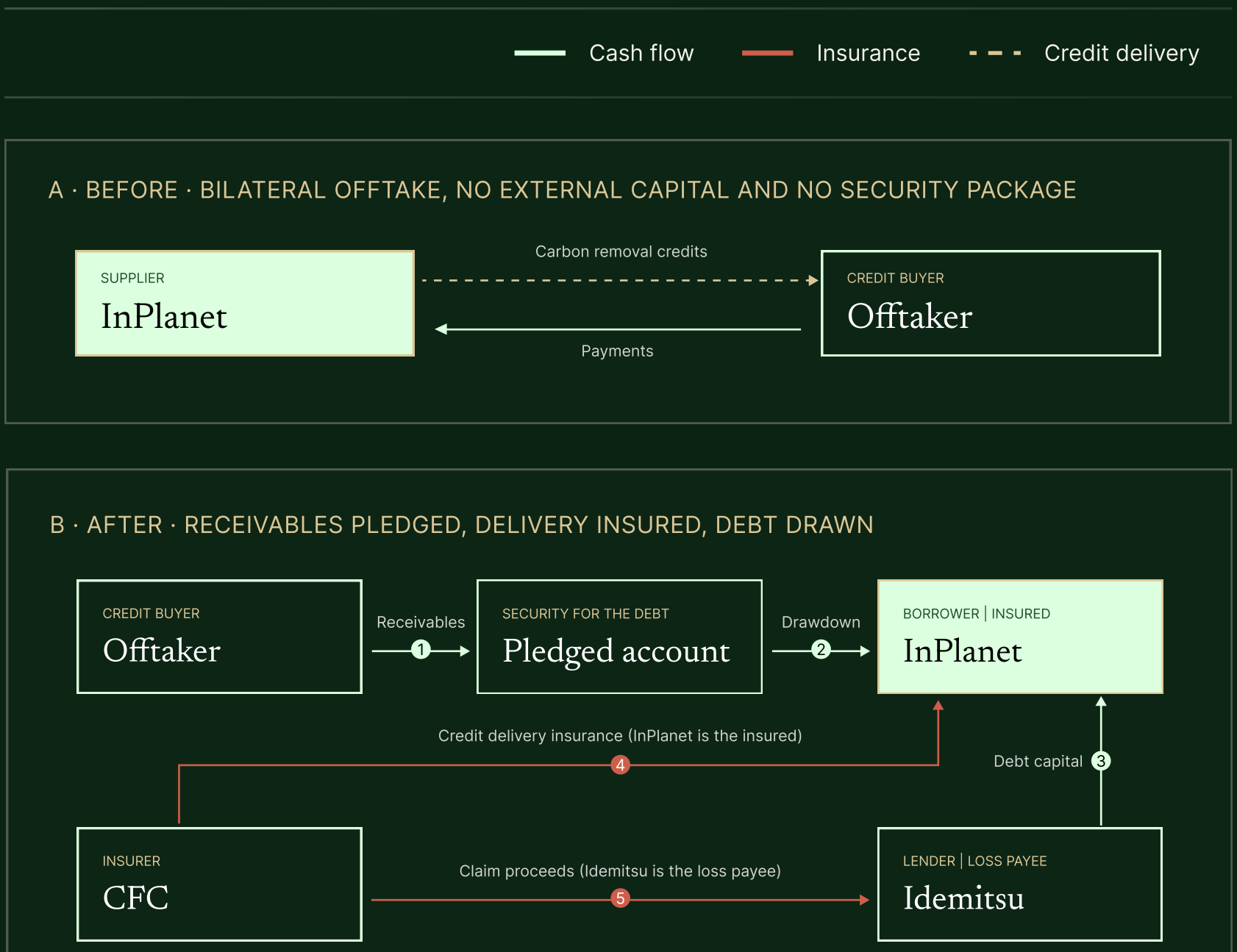


FIGURE 8 · FINANCING STRUCTURES BEFORE AND AFTER THE DEBT FACILITY

Offtake and financing structure before and after the debt facility

The transaction differs from a conventional supplier-offtaker arrangement in two respects. First, the receivables arising from the offtake are assigned to a pledged account over which InPlanet and Idemitsu have agreed control arrangements. Second, InPlanet obtained delivery insurance from CFC, with Idemitsu as loss payee. Together these shift the delivery and performance risk to the insurer that would otherwise have sat with the lender alone.



1. **Receivables** - Offtaker payments for delivered credits are routed to a pledged account.
2. **Drawdown** - InPlanet draws funds from the pledged account.
3. **Debt capital** - Idemitsu provides the debt facility to InPlanet.
4. **Credit delivery insurance** - CFC insures InPlanet's credit delivery. InPlanet is the insured party.
5. **Claim proceeds** - Any insurance claim is payable to Idemitsu as loss payee (beneficiary).

WHAT PARTIES SAY

Voices of the Transaction

We have been hugely impressed by the scientific rigor, operational capability and collaborative approach of the InPlanet team. ERW has significant potential to scale, but doing so requires innovative forms of capital and risk transfer. We are therefore delighted to support InPlanet and Idemitsu on this novel transaction that will help further scale the operations and positive impact of the underlying carbon project.



Adi Sanghvi
Carbon Practice Leader, CFC

We entered the carbon removal space as early investors and believers in the market and technology. As the industry matures, our capabilities evolve, expanding from venture investing to helping unlock the financing solutions required to scale deployment. This transaction is a strong example of how our long-standing relationships across the ecosystem create value by bringing together the right parties.



Max Zeller
Founding Partner, Carbon Removal Partners

In just two years, we went from delivering the world's first independently verified enhanced rock weathering credits to operating the largest ERW program in Brazil. This financing with Idemitsu takes that work to its next level: it shows that carbon removal grounded in solid science can also be financed like real infrastructure. For us, this is about more than capital. Japan is continuing to develop its carbon market and standards for high-integrity carbon removal, and we look forward to contributing to that dialogue.



Felix Harteneck
Founder & CEO, InPlanet

InPlanet's efforts in Brazil combine scientific rigor with hands-on application, making them an important player in advancing durable CDR from the demonstration stage to full-scale deployment. This funding is an important step to deepen our understanding of durable CDR and support its development. Going forward, we will continue to contribute to the overall development of the CDR market through collaboration and knowledge sharing with InPlanet.



Masanori Abe
President & CEO, Idemitsu Americas Holdings Corporation

InPlanet

04 The Conditions for Broader Application

What it took for this transaction to work, and what still stands between one deal and wider adoption.

The transaction shows that revenue financing can be structured today.

However, it cannot yet be applied across the whole carbon removal market. The transaction depended on three elements coming together, and two constraints still limit how widely it can be repeated. Addressing them will be essential to unlocking broader adoption of revenue financing in carbon markets.

First, the offtake agreement must be bankable: it must create an enforceable and clearly defined payment obligation. The buyer's credit quality matters just as much, since it determines the likelihood that contracted cash flows will actually arrive. In established receivables markets, lenders mitigate buyer credit risk through instruments such as letters of credit or trade credit insurance.[11] Together, the contractual agreement and the buyer's credit profile form the lender's expected source of repayment.

Buyers benefit too. An offtake structured to support financing gives suppliers access to the resources to scale and deliver, thereby raising the probability that the buyer receives its contracted credits on time.

TWO CONSTRAINTS ON WIDER ADOPTION

01

Offtake bankability

Lenders need a clearly defined obligation to pay a predetermined price on delivery, from a creditworthy buyer.

02

Transaction size

Many offtakes are small relative to the tickets debt providers typically consider.

11 Deutsche Bank, Sullivan & Worcester and ITFA, A Guide to Receivables Finance, 3rd ed., 2021.

Second, transaction size remains a hurdle. Many offtake agreements are still small relative to the tickets debt providers typically consider. As demand grows, however, developers can increasingly show a path from initial contracts to larger revenue streams, and a first transaction should be seen not in isolation but as the foundation for larger financing programs over time.

It should be noted that no single financing structure will be sufficient to support the scale-up of the carbon removal industry. Alongside the financing structure discussed above, joint ventures, royalty-based financing and other innovative forms of capital will each have a role to play. The best solution will depend on both investor preferences and the characteristics of the underlying business model.

TOOLS LENDERS CAN USE TO REDUCE RISK

In established receivables markets, buyer credit risk is mitigated through:

01

Letters of credit

02

Trade credit insurance

A first transaction should be seen not in isolation but as the foundation for larger financing programs over time.

The right structure depends on who is providing the capital.

NO SINGLE STRUCTURE WILL BE SUFFICIENT — The best solution depends on investor preferences and the business model

SUITED TO LENDERS

Revenue financing

Lending against contracted offtake revenue. The structure this paper documents.

SUITED TO STRATEGICS

Joint ventures

Shared ownership of deployment. Suits partners who want operational involvement or secured supply, not only a financial return.

STRATEGICS AND SPECIALIST FUNDS

Royalty-based financing

Capital repaid as a share of future revenue rather than on a fixed schedule, often not requiring a signed offtake agreement at the facility drawdown date.

EMERGING

Other innovative forms of capital

New structures such as blended finance and equipment sale-leasebacks will develop as the market matures.

InPlanet

From One Transaction to a Financing Market

Turning a single deal into a repeatable, scalable structure.

Progress will depend on continued collaboration.

Carbon removal suppliers face a timing problem: capital is required today to develop plants and project sites before the associated revenues are received. The InPlanet transaction demonstrates how contracted future demand can help address that mismatch.

One transaction does not make a market, but it shows that one can begin to form. The next step is to turn a single deal into a repeatable, scalable structure.

Progress will depend on continued collaboration among all stakeholders involved. More standardized and bankable offtake agreements, ongoing engagement from risk underwriters, and a growing operational track record among project developers will be needed to scale these transactions successfully.

THE NEXT STEP

Now comes the task of turning a successful first transaction into a repeatable instrument.

Organizations interested in accelerating this growth are encouraged to directly engage with the stakeholders involved in this transaction.

WHAT SCALING WILL NEED

01
Contracts
More standardized and financeable offtake agreements

02
Underwriters
Continued engagement from risk underwriters

03
Investors
Interest in accelerating growth

04
Developers
A growing operational track record

ABOUT THE AUTHORS

The organizations behind this paper

SUPPLIER

InPlanet

InPlanet

InPlanet is an agricultural technology company pioneering Enhanced Rock Weathering (ERW) as a scalable pathway for durable carbon dioxide removal and regenerative agriculture. By applying finely crushed silicate rock to tropical soils, InPlanet accelerates natural weathering to remove CO_2 while improving soil health, supporting crop productivity, and reducing reliance on agricultural inputs. Its operations are powered by Bedrock OS, InPlanet's proprietary digital infrastructure layer. Founded in 2022, InPlanet operates across Brazil and Germany, with more than 70% of its team based in Brazil. In December 2024, InPlanet delivered the world's first independently verified ERW carbon removal credits, which subsequently received a post-issuance "A" rating from BeZero Carbon in June 2025.

LENDER

Idemitsu Americas Holdings

idemitsu

Idemitsu Americas Holdings Corporation ("IAH") is a wholly owned subsidiary of Idemitsu Kosan Co.,Ltd. ("Idemitsu"), which is headquartered in Tokyo, Japan. Founded in 1911, Idemitsu develops, manufactures, and sells a wide range of energy products and materials across several fields, including petroleum, basic chemicals, functional materials, power and renewable energy, and resources. Under its Medium-Term Management Plan for fiscal years 2026–2030, the company is working toward the realization of a carbon-neutral and circular society. While strengthening the foundations of its existing businesses, Idemitsu is also creating and expanding new businesses and scaling up low-carbon and decarbonization initiatives. Idemitsu's participation in this transaction reflects their ambition to support the development of new financing approaches for carbon dioxide removal, and of carbon management and removal markets more broadly. Through collaboration with InPlanet and the other partners, Idemitsu is also building its own understanding and experience of the sector.

INSURER

CFC

cfc

CFC is a global specialist insurance provider focused on emerging risks and cyber insurance. Headquartered in London, the company combines technology and data science to support underwriting and protect businesses against complex risks. CFC serves more than 250,000 businesses worldwide. Its carbon insurance products help manage risks across carbon transactions and support investment in carbon projects.

INTRODUCED BY

Carbon Removal Partners

CARBON REMOVAL PARTNERS

Carbon Removal Partners (CRP) is an investment manager and advisor headquartered in Zurich with a subsidiary in San Francisco, focused on carbon management and the broader carbon removal ecosystem. The firm launched a dedicated venture capital fund investing in companies that enable durable carbon removal at scale. With a multidisciplinary team and deep expertise across science, finance, engineering and carbon markets, CRP is uniquely positioned to bridge the gap between technological innovation and institutional capital. Through its investment and advisory activities, CRP leverages an extensive network spanning carbon buyers, project developers, policymakers and a broad range of institutional and private investors. By connecting these key market participants, the firm contributes to the growth of the global carbon management ecosystem.

InPlanet

GET IN TOUCH

To explore financing, insurance or partnerships that can help scale carbon removal, contact the organizations below.

THE ORGANIZATIONS

Carbon Removal Partners

INQUIRIES
Investment and Partnerships

WEBSITE
carbonremoval.partners

CONTACT
info@carbonremoval.partners

OFFICE
Basteiplatz 7, 8001
Zurich, Switzerland

CFC

INQUIRIES
Carbon Insurance

WEBSITE
cfc.com

CONTACT
asanghvi@cfc.com
pthomas@cfc.com

OFFICE
8 Bishopsgate
London EC2N 4BQ,
United Kingdom

Idemitsu Americas Holdings

INQUIRIES
Carbon Removal Partnerships and Financing

WEBSITE
idemitsuamericas.com

CONTACT
https://www.idemitsu.com/en/contact/flow/

OFFICE
1330 Post Oak Boulevard,
Suite 1100, Houston, TX 77056,
United States

InPlanet

INQUIRIES
Financing and Investment Opportunities

WEBSITE
inplanet.earth

CONTACT
investor.relations@inplanet.earth

OFFICE
Avenida Independência 1771,
Alto, Piracicaba,
SP, 13419-155, Brazil

REFERENCES

1, 2 CTVC and Elemental Impact. "***2026 Founder Survey.***" *CTVC by Currence*, August 28 2026.

3. CDR.fyi. "***Durable carbon removal market data, leaderboards and intelligence.***" CDRfyi Inc. Accessed September 16 2026.

4. Frontier. "***$915M in new funding to drive carbon removal's next phase of growth.***" June 17 2026.

5. U.S. Congress. "***H.R.1 – One Big Beautiful Bill Act (Public Law 119-21).***" Congress.gov. Accessed October 13 2026.

6. European Commission. "***Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC and Decision (EU) 2015/1814 as regards driving competitiveness and cost-effective decarbonisation.***" COM(2026) 616 final, Brussels, July 17 2026.

7. Smith, S. M., et al. (eds.), "***The State of Carbon Dioxide Removal.***" 2nd edition (2024).

8. NASA Science Editorial Team. "***Visualizing the Quantities of Climate Change.***" NASA Science, March 9 2020, updated October 23 2024.

9. European Investment Bank. "***What is venture debt? All the answers from a market pioneer.***" May 25 2022.

10. CFC. "***Carbon Insurance.***" CFC Underwriting Ltd. Accessed September 16 2026.

11. Deutsche Bank, Sullivan & Worcester UK LLP and the International Trade & Forfaiting Association. "***A Guide to Receivables Finance***." 3rd edition. September 2021.

PUBLISHED IN OCTOBER 2026

Closing the Climate Financing Gap

How revenue financing can unlock upfront capital against contracted demand.

inplanet.earth

A JOINT WHITE PAPER BY

InPlanet · CARBON REMOVAL PARTNERS · idemitsu · cfc

THIS DOCUMENT IS INTENDED SOLELY FOR INFORMATIONAL PURPOSES AND SHOULD NOT BE CONSTRUED AS INVESTMENT, LEGAL, OR INSURANCE ADVICE.

© 2026 INPLANET GMBH