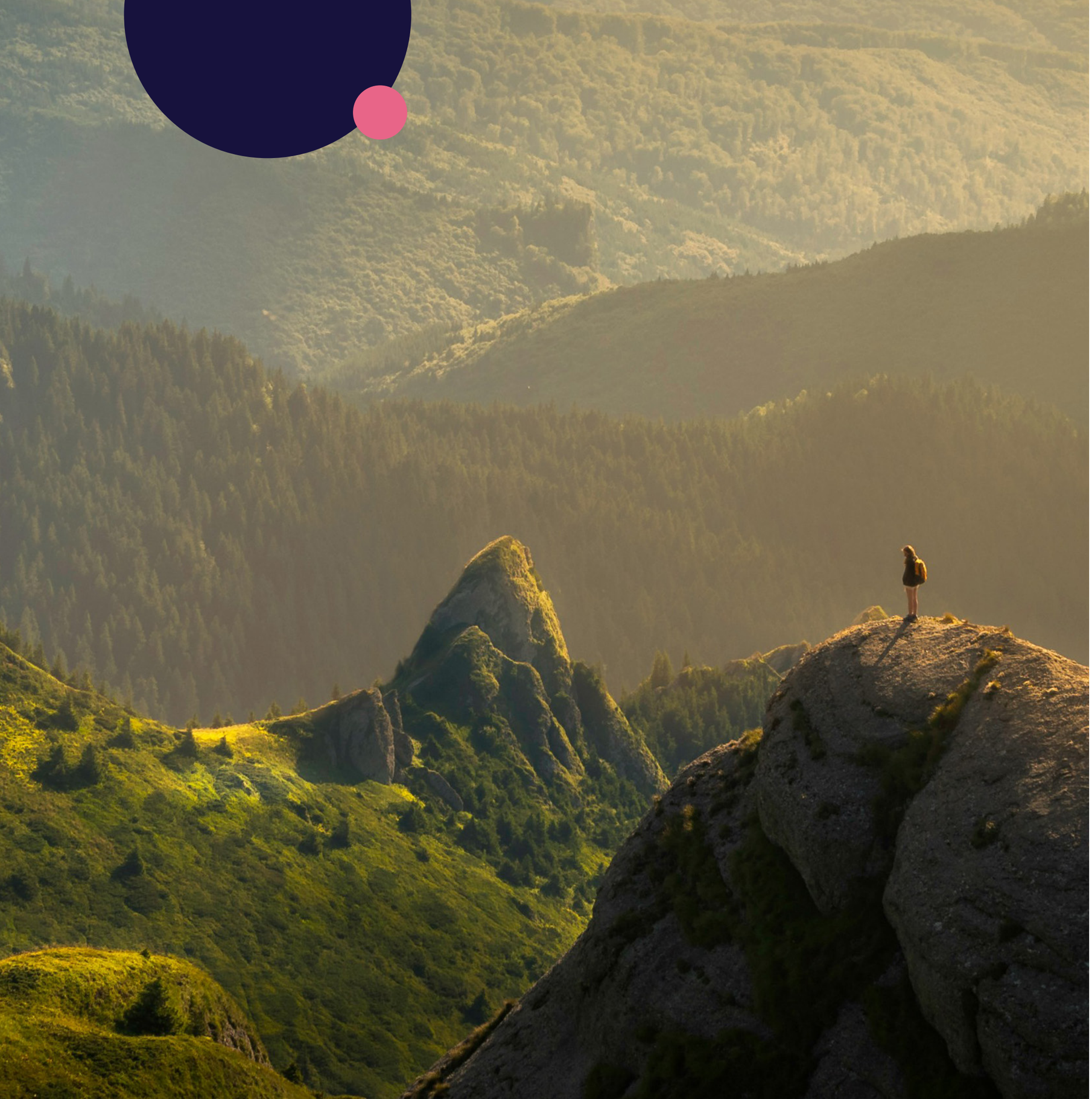
Net Zero: The Second Stage

The need for quality in the carbon credit market

February 2025

octopus investments

A brighter way



Find it fast

Research highlights

Five insights that demonstrate the potential for progress:

73%
of organisations are planning to offset their hard-to-abate emissions using carbon credits, highlighting the widespread recognition of their importance in achieving net-zero goals.

42%
of respondents can accurately define carbon credits, underscoring a significant knowledge gap that may hinder effective implementation.

92%
of respondents are confident their organisations will meet net-zero targets, demonstrating optimism despite existing knowledge gaps around carbon credits.

76%
of companies express a preference for UK-produced carbon credits due to their traceability and alignment with local sustainability goals.

64%
of respondents say their companies have already bought carbon credits, demonstrating the significant demand even though the market is still in its nascence.

Methodology

This report is based on primary and secondary research conducted between August and December 2024. Our methodology included:

- A survey of 300 UK-based senior business leaders across multiple sectors.
- Data analysis from third-party platforms, including the Science-Based Targets initiative (SBTi).
- Qualitative interviews with industry experts and investment professionals.

Future benchmarking against publicly available SBTi data will provide additional context, ensuring that UK businesses are aligned with global progress in carbon commitments.

“The carbon credit market is entering a new phase where transparency and measurable impact are non-negotiable. This is about progress, not perfection.”

Gabi Slemer, Investment Director, Natural Capital, Octopus Investments

Foreword

"In the race to net zero, businesses across the UK face a critical crossroads. The decarbonisation journey is well underway for many, but for most, achieving net zero will require more than simply reducing emissions. **Carbon credits, especially those focused on carbon removal, are increasingly recognised as essential tools to offset the hardest-to-abate emissions.** Yet, significant knowledge gaps and a lingering mistrust in the market threaten to impede this progress.

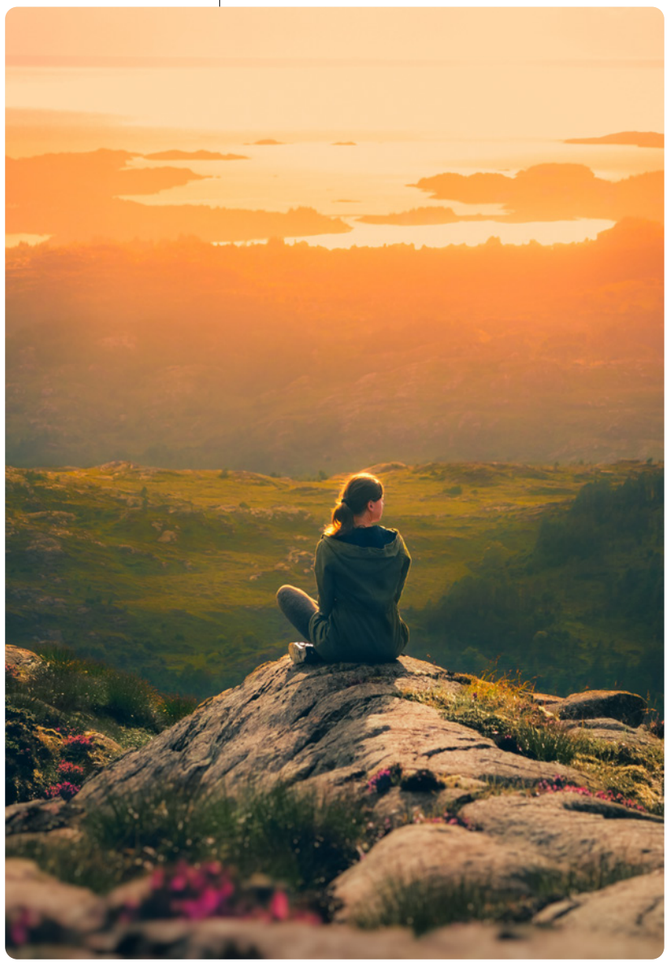
At Octopus Investments, we're committed to supporting a more sustainable future by providing clarity and confidence in the carbon credit market. **We believe businesses need access to high-quality, traceable credits that align with their sustainability goals and the UK government's legislated net zero target of 2050.** This report addresses the challenges we've observed – from understanding the role of carbon credits to navigating the complexities of transparency and accountability – and offers actionable insights to empower businesses on their path to net zero.

Lieven Debruyne, CEO of Octopus Investments' institutional business

For the UK's corporate sector, bridging the knowledge gap around carbon credits isn't just beneficial – it's necessary. By focusing on education, collaboration, and high-integrity solutions, we can help restore trust in the market and set a new standard for climate action.

The findings and solutions presented here are an invitation for UK businesses to take charge of shaping a transparent, trustworthy carbon credit market because the cost of inaction is too great.

We invite you to explore the findings of this report and consider how your business can play a leading role in this shared journey toward a sustainable future."



Executive summary

Hard-to-abate emissions require an additional tool: carbon credits. These credits – particularly high-quality removal credits – are essential for offsetting emissions that cannot be directly reduced.

However, the carbon credit market presents an unresolved challenge. **While 92% of senior leaders express confidence in meeting net-zero goals, only 42% can accurately define carbon credits.** Even fewer can distinguish between removal and avoidance credits, leaving significant gaps in understanding and clarity. This knowledge gap, combined with lingering mistrust in the market, underscores a pressing need for better education, actionable guidance, and transparency.

This report positions the carbon credit market at a "second stage," also referred to as Voluntary Carbon Markets 2.0 (VCM 2.0), where the focus is shifting from avoidance credits to high-quality removal solutions. **These removal credits represent an opportunity to provide measurable environmental impact and align corporate investments with national and global sustainability goals.**

Emerging markets have exposed risks associated with avoidance credits due to visibility and project transparency challenges. This explains the growing trend towards the importance of quality and location when selecting projects. Local projects tend to offer greater visibility and traceability, and are becoming more attractive to businesses. For UK businesses, local solutions are poised to play a pivotal role in achieving net zero goals with confidence and integrity.

Only **42%** of senior leaders can accurately define carbon credits.

While businesses are broadly confident in their sustainability plans, they risk falling short of their commitments without addressing these gaps. Without better understanding, clearer strategies, and trustworthy market solutions, companies face reputational risks and missed opportunities for meaningful climate action.

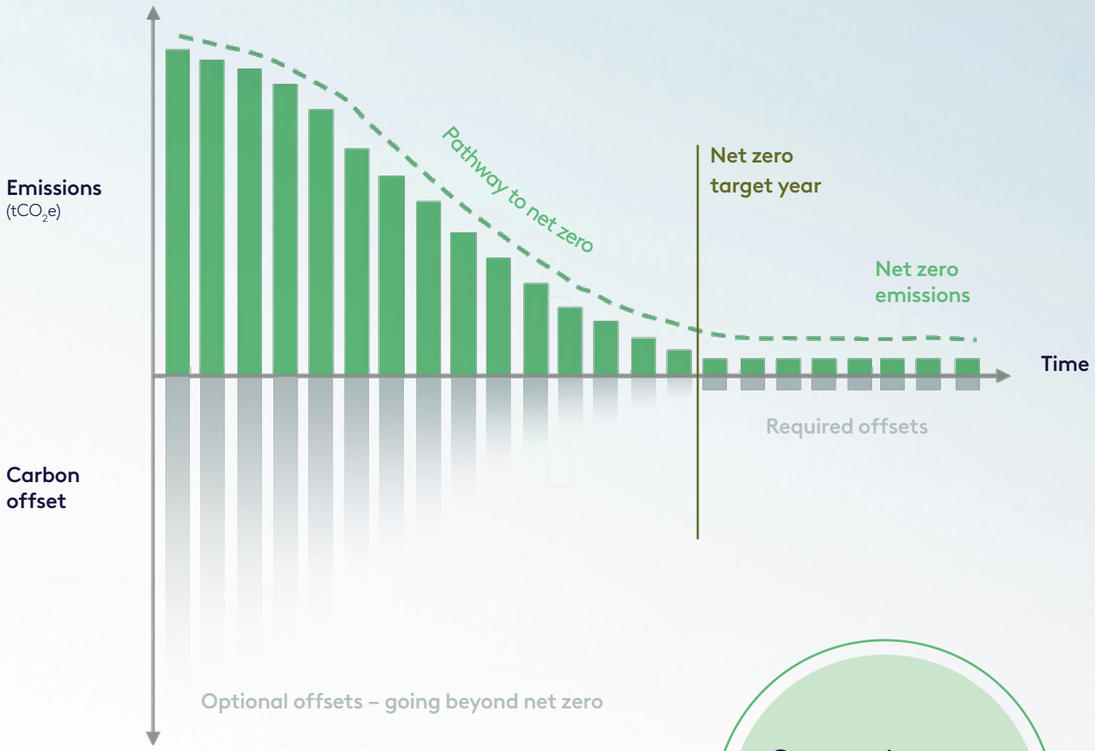
To bridge these barriers, this report explores and identifies key challenges and opportunities for UK businesses. It offers actionable insights to overcome obstacles in purchasing carbon credits, rebuild market trust, and invest effectively in natural capital.

Mike Toft, Senior Fund Manager, Octopus Investments

"The success of net zero depends on more than ambition – it requires businesses to understand and fully trust the tools at their disposal. Bridging the knowledge gap and restoring confidence in carbon credits is not just necessary; it's essential for meaningful climate action."

Net Zero is the biggest challenge of our generation

Even with radical innovation, offsetting carbon emissions is needed to achieve net zero.



Companies must offset their residual emissions to be net zero.

No one gets to net zero without carbon credits...

Decarbonisation: Rightly, decarbonisation is the primary goal and current focus of most companies. Net zero SBTi targets require **90%** of emissions to be carbonised.

Carbon offsetting: It is undeniable that to hit net zero we need carbon credits to offset **10%** of residual emissions.

What is the voluntary carbon market, and why is it important?

The voluntary carbon market can be confusing to understand, with a new language that all stakeholders are still grappling with. Here's an explanation of a few key terms upfront and for anything else, there's a glossary at the end of the report

Natural capital refers to the world's stock of natural assets – like forests, oceans, and soils – that provide ecosystem services such as carbon sequestration, clean water, and enhanced biodiversity. Voluntary carbon markets enable businesses to purchase these ecosystem services, through mechanisms like carbon credits. These projects are typically referred to as Nature Based Solutions, like afforestation and peatland restoration, which address climate change while delivering additional benefits for people and planet.

Natural capital's role in:

The economy

According to the World Economic Forum, it's estimated that over half of global GDP is moderately or highly dependent on nature[1] – with US$44 trillion potentially threatened by nature loss.

Biodiversity

Biodiversity is our strongest natural defence against climate change, but it's been decreasing at an alarming rate and is in crisis. Nearly one in six species are threatened with extinction in Great Britain.

Climate change

Climate change is a primary driver of biodiversity loss, and climate change depends on biodiversity as part of the solution. Nature is key to solving both.

[1]Half of World's GDP Moderately or Highly Dependent on Nature, Says New Report; World Economic Forum, as of 19 January 2020 and State of Nature Partnership.

How do carbon credits work?

This is the process for afforestation credits in the UK but most codes around the world follow similar principles

Registration

Register a Project Design Document with the Forestry Commission, outlining your plan, estimating total carbon capture, and demonstrating compliance with requirements.

Carbon emission reduction activity

Plant trees to deliver your project as specified in the registration stage.

Validation

After planting, have your project validated by an accredited certification body. Validation assigns your project a predicted number of carbon credits, known as Pending Issuance Units (PIU), which represent the carbon your project is expected to sequester over its lifetime.

Verification

Periodically verify your project (typically every five years) to ensure it continues to meet standards and confirm the carbon has been sequestered. During verification, a portion of your PIUs mature into verified Woodland Carbon Units (WCU), representing the actual carbon removed.

Sale

Sell PIUs (before credits mature) or Woodland Carbon Units (post-maturity and verification) on a project-by-project basis to corporate buyers. Sale can happen after verification or validation.

To offset their carbon footprint, a growing number of companies are purchasing carbon credits in the voluntary carbon market (VCM).

Carbon credits are managed via Codes of which there are various, but the only one in the UK for woodlands which is government backed is the Woodland Carbon Code (WCC).

Projects are required to be verified (by an approved body, such as the Soil Association) to ensure that you are complying with the WCC and have successfully sequestered carbon.

1 carbon credit = 1 tonne of CO_2

Companies are realising the need for carbon credits to offset their emissions

Companies want to act responsibly for the planet and build valuable, sustainable brands. As net-zero targets approach, companies are being held to account by customers, shareholders, and employees.

They must demonstrate how they will meet net zero. Offsetting is a critical part of this, driving demand.

A clear opportunity to seize

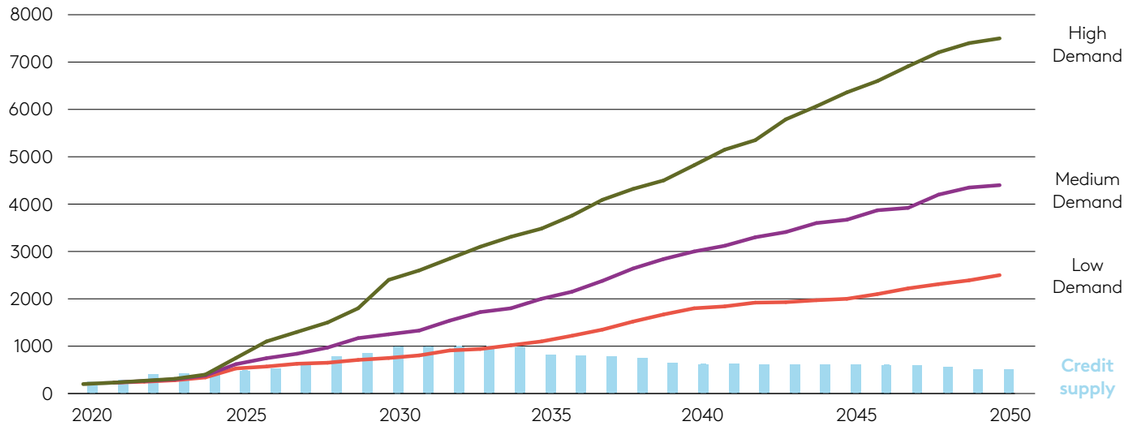
97%
of FTSE 350 directors want to offset carbon in the UK[1]

10,000
companies globally have set science-based pathways to reduce greenhouse gas emissions[2]

[1]Environment Analyst, as of January 2023.
[2]Companies Taking Action; Science Based Targets, 2025.

Demand from companies to offset their carbon emission is growing

Annual supply and demand – all credits ($MtCO_2e/yr$)[1]

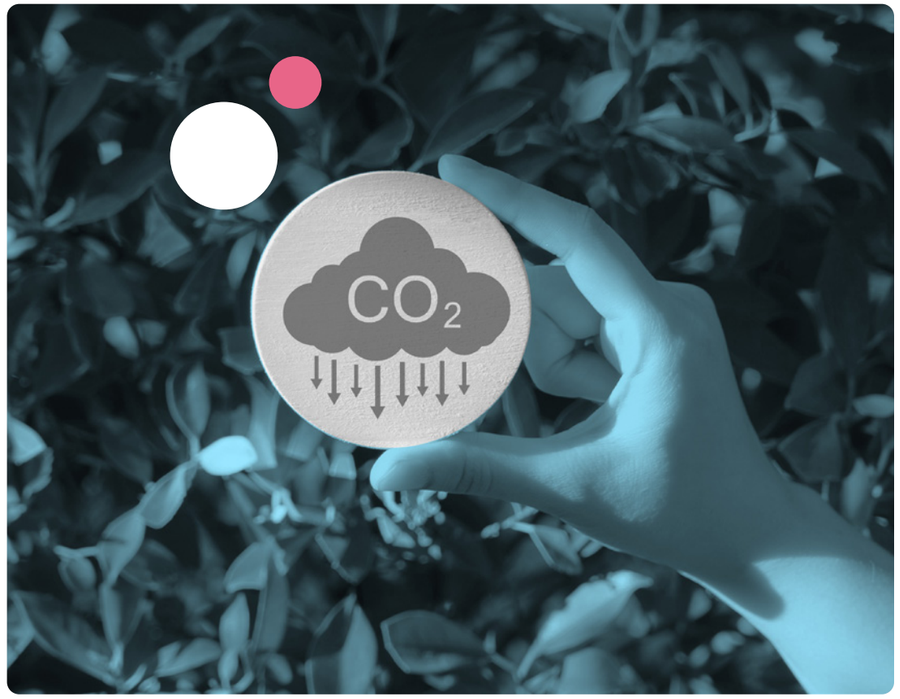


This graph illustrates that even under the lowest projected demand scenario for carbon credits, the supply is insufficient to meet corporate needs.

To reach net zero in 2050,

90m

tCO_2e of hard to abate residual emissions will need to be offset annually.[1]



Note: Demand will require a corresponding adjustment.
[1]Trove Research (now MSCI) Investment trends and outcomes in the global carbon credit market report, as of 13 September 2024.

Challenges and opportunities in the carbon credit market

To understand the challenges and opportunities within the carbon credit market, it's essential to establish a baseline. The market operates in two primary domains: compliance markets and voluntary carbon markets (VCMs). Compliance markets are a way for certain regulated industries to reduce their carbon emissions through a cap-and-trade system. If one company doesn't reach their cap, they can sell their "credits" to another company who might have exceeded the cap. Notably, the credits on the compliance market do not represent carbon sequestered.

The voluntary carbon market is driven by corporate and social responsibilty, and sustainability goals, and allows organisations to offset emissions voluntarily, through purchase of either avoidance or removal credits that have been generated from activities that either reduce, or remove carbon. VCMs, driven by corporate social responsibility and sustainability goals, allow organisations to offset emissions voluntarily. Standards like Verra, Gold Standard, and the UK Woodland Carbon Code (WCC) ensure credibility.

UK businesses are showing strong confidence in their ability to achieve net-zero targets, with 92% of senior leaders optimistic about their progress. This reflects a broad focus on sustainability practices and reducing emissions. However, the VCM remains nascent, and many decision-makers lack awareness of the role carbon credits play in truly achieving net-zero goals. This 92% optimism may signal overconfidence given the market's complexity.

Moreover, the market's association with past scandals has created tension. Businesses recognise the necessity of carbon credits but remain hesitant to navigate a system they perceive as opaque and unreliable.

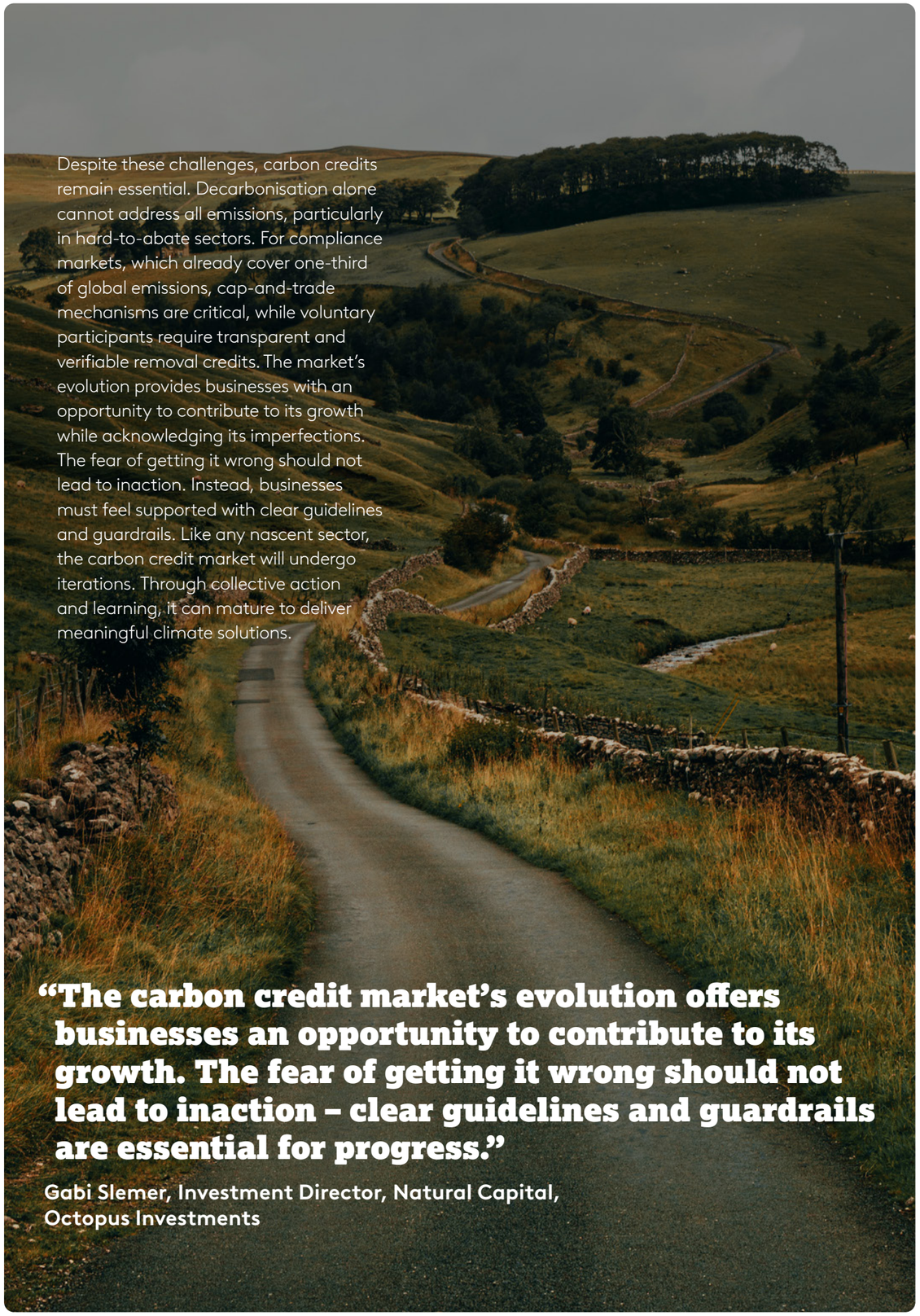
92%

of senior leaders are optimistic about their progress in achieving net-zero targets.

This shift signals the evolution to Voluntary Carbon Markets 2.0 (VCM 2.0), which prioritises high-quality removal credits with verifiable outcomes. These credits set a new standard for credibility by addressing transparency and ensuring measurable climate benefits.

However, businesses must approach the market with due diligence. Sourcing high-quality carbon credits can be daunting due to the lack of standardisation and options available in the market, but this report aims to equip businesses with the knowledge to discern quality and make informed decisions.

Historically, the market's credibility has suffered, partly due to the prevalence of avoidance-based credits, which account for 96% of the market. These credits represent savings in emissions that wouldn't otherwise have happened, which can be very difficult to prove and raises concerns around integrity. The absence of guardrails has further led to bad actors, poor transparency, and reputational risks – issues exacerbated in emerging markets, where most credits originate. This "double whammy" of avoidance credits and insufficient oversight has eroded trust in the market, risking stalled progress on hard-to-abate emissions at a time when urgent action is needed.



Despite these challenges, carbon credits remain essential. Decarbonisation alone cannot address all emissions, particularly in hard-to-abate sectors. For compliance markets, which already cover one-third of global emissions, cap-and-trade mechanisms are critical, while voluntary participants require transparent and verifiable removal credits. The market's evolution provides businesses with an opportunity to contribute to its growth while acknowledging its imperfections. The fear of getting it wrong should not lead to inaction. Instead, businesses must feel supported with clear guidelines and guardrails. Like any nascent sector, the carbon credit market will undergo iterations. Through collective action and learning, it can mature to deliver meaningful climate solutions.

"The carbon credit market's evolution offers businesses an opportunity to contribute to its growth. The fear of getting it wrong should not lead to inaction – clear guidelines and guardrails are essential for progress."

Gabi Slemer, Investment Director, Natural Capital, Octopus Investments

The need for education and clarity in carbon credits

As the journey to net zero continues, UK businesses are setting ambitious sustainability goals. **Most companies surveyed (86%) have established clear net-zero targets, with 39% aiming to achieve net zero by 2035 and 33% by 2030.** However, achieving these targets without a well-defined and strategic path will be challenging.

Why knowledge matters

A multifaceted approach is essential – one that combines decarbonisation with complementary offset strategies, such as the purchase of carbon credits, to address hard-to-abate emissions. Carbon credits play a vital role in bridging the gap between what companies can achieve through efficiency improvements and the residual emissions that need to be offset.

While only 19% of businesses believe they can achieve net zero through decarbonisation alone, **the majority (73%) recognise that reducing emissions will not be enough.** This awareness is driving demand, with **64% of companies already purchasing carbon credits as part of their sustainability strategies.** However, this demand exists alongside a significant knowledge gap.

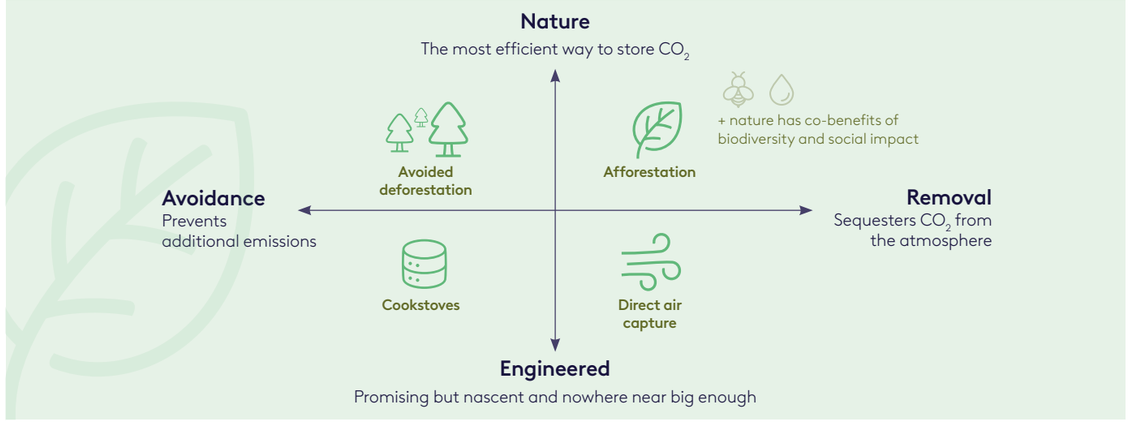
Only 42% of senior decision-makers could accurately define a carbon credit, which represents one tonne of carbon dioxide (or equivalent greenhouse gas) either removed from the atmosphere or avoided through specific projects. **Just 46% could distinguish between carbon removal and avoidance credits.** This lack of clarity leaves businesses vulnerable to missteps, such as relying on lower-quality credits that risk accusations of greenwashing or failing to deliver meaningful environmental impact.

The risk of avoidance credits

To close the knowledge gap, businesses must first understand the key differences between carbon removal and avoidance credits. Avoidance credits – designed to prevent future emissions by funding projects like cookstoves or avoided deforestation – **currently account for 96% of the voluntary carbon market[1].** However, they have been criticised for failing to deliver tangible reductions in atmospheric carbon and – in some cases – fuelling greenwashing concerns. But avoidance credits aren't all bad. Nature-based are generally better than engineered, however traceability and proving impact can be challenging.

[1]UK Parliament POST Carbon Offsetting January 2024.

Carbon Removal vs. Avoidance – Key Differences



The risk of avoidance credits

Avoidance credits are widely used in carbon markets, but their effectiveness depends on accurate measurement and robust oversight. While these credits are designed to prevent emissions – such as protecting forests from deforestation – some projects have struggled to prove their impact. In some instances, credits have been issued based on overestimated environmental benefits, raising concerns about credibility and transparency.

Protecting virgin forests is extremely important. However, REDD+ credits to date have often lacked rigorous validation, making it difficult to assess their true impact. A prominent example is the Madre de Dios Amazon project, which aimed to protect a large area of forest from deforestation. Despite its good intentions, an investigation revealed that the project overestimated the deforestation it prevented, calling its legitimacy into question. Many credits issued under this scheme failed to represent real carbon savings, raising concerns about transparency and traceability in similar initiatives.

This highlights the inherent risks of relying on avoidance credits without robust governance and verification mechanisms. **Over 28% of businesses cite transparency as a key barrier to purchasing carbon credits,** so addressing these shortcomings is essential to restoring confidence in carbon markets and ensuring that credits deliver real, measurable benefits.

In contrast, removal credits focus on capturing and sequestering carbon through methods such as afforestation and soil sequestration. These credits are increasingly recognised as essential to addressing hard-to-abate emissions and achieving net zero goals. While these projects aren't without risks, particularly in emerging markets, pricing signals indicate that with carbon dioxide removal credits, they are easier to prove for true environmental impact and project transparency, given they are active rather than passive.

> "You can't reduce every tonne of carbon through efficiency improvement alone, so offsets play a critical role."

Mike Toft,
Senior Fund Manager, Octopus Investments

What creates quality

Senior business leaders we surveyed stated that quality was the most important factor for choosing a carbon credit (62%). Businesses must acknowledge that not all credits are created equal and should deepen their understanding of what constitutes high quality. Use the below checklist as a guide for what attributes define high-quality credits*:

- ❑ **Country risk:** UK-based credits often provide stronger governance and traceability than those in emerging markets, which may face political instability and weaker legal frameworks.
- ❑ **Counterparty risk:** Established and trustworthy organisations risk.
- ❑ **Supply chain risk:** Traceable processes ensure that the credit's origin and impacts are verifiable.
- ❑ **Social risk:** Credits should add value to local communities and avoid displacing or exploiting them.
- ❑ **Permanence and additionality:** Projects must guarantee long-term carbon storage, and ensure carbon reductions claimed are real and will last.
- ❑ **Biodiversity:** Credits should prioritise projects that enhance ecosystems.
- ❑ **Transparency, monitoring, and verification:** Regular monitoring ensures that projects meet their intended outcomes.
- ❑ **Contribution to net zero transition:** Credits need to be compatible with the objective of achieving net zero.

*This checklist is based on the ICVCM core carbon principles.

The need for education and clarity in carbon credits → continued

Whilst progessing on this journey, businesses must not overlook the importance of investing in high-quality solutions. The long-term credibility of their net-zero strategies hinges on striking a balance between addressing immediate needs and ensuring robust, verifiable outcomes. Due diligence is essential for understanding the credits businesses purchase and the risks associated with them. Much like any other corporate procurement, careful evaluation of these factors is critical.

As discussed, the carbon market is now in its second stage, evolving from VCM 1.0 to 2.0, with quality as a key priority. It does this through three key standard-setting bodies:

- **SBTi:** Defines how carbon credits can be used on the journey to net zero.
- **The Integrity Council for the Voluntary Carbon Market (ICVCM):** Establishes quality standards for credits.
- **Voluntary Carbon Markets Integrity Initiative (VCMI):** Ensures integrity in the buyers of carbon credits.

Closing the education gap

A lack of understanding about the distinctions between different types of credits and their respective roles remains a key barrier, with **30% of businesses citing limited knowledge as the primary reason for not investing in carbon credits.** Closing this knowledge gap will therefore be critical in meeting ambitious targets while maintaining credibility and avoiding reputational risks. For businesses to integrate carbon credits effectively into their sustainability strategies, we must collectively address the knowledge gaps that exist today. Targeted efforts to educate decision-makers and equip them with the tools to make informed choices are required.

However, the responsibility of education doesn't rest solely on businesses. The industry must collectively make carbon markets more accessible by providing clearer frameworks and resources to support informed decision-making. Key steps include:

1. **Ask questions:** Businesses should scrutinise not only the organisation selling the credits but also the underlying project, ensuring it aligns with their values and risk tolerance. Using a robust risk framework can help mitigate potential pitfalls.
2. **Engage with others:** Collaboration is vital. Sharing insights and experiences within the industry fosters greater understanding and encourages innovation.
3. **Define priorities:** Businesses must decide what is most important to them, balancing cost and quality. Their carbon credit strategy should reflect their values and long-term goals.

By understanding these principles, businesses can make informed decisions that align with their sustainability goals, rebuild trust in the carbon credit market, and contribute meaningfully to global climate action.

Building trust through transparency: the role of UK-based carbon credits

As businesses face increasing scrutiny over their sustainability commitments, the need for traceability and transparency in the carbon credit market has never been more important. Businesses are hesitant to invest without it – **28% of respondents highlight transparency as a major barrier to purchasing credits.** For many corporate leaders, ensuring their investments in carbon credits deliver genuine, measurable impact is essential – not only for achieving net-zero targets but also for maintaining credibility with stakeholders.

Our research shows that **76% of UK businesses prefer to purchase UK-based carbon credits,** highlighting a strong demand for projects that offer more easily verifiable benefits. This preference reflects the growing need for localised solutions that address the credibility challenges of international carbon credits, which often face risks related to governance, legal frameworks, and traceability.

Why UK-based credits inspire confidence in UK businesses

UK-based carbon credits offer distinct advantages for businesses seeking accountability, transparency, and impact. These include:

- The UK government has developed robust nature-based carbon removal methodologies, such as the WCC, which is government-backed and recognised as one of the most rigorous and conservative frameworks globally.
- The Woodland Carbon Guarantee (WCaG) in England provides a government backed floor price for credits, which averaged £20 per tonne CO_2e as of 2024[1], further incentivising participation in the market.
- There is government support for tree planting and land-use transformation. For example, forestry grant schemes can cover a majority of costs associated with new woodland creation and peatland restoration.
- The UK's legislative landscape supports its leadership in sustainability. As the first country to legislate a net-zero goal, the UK has set a benchmark for environmental responsibility. This means UK businesses can navigate the carbon market with confidence.
- UK companies are increasingly embracing shared accountability by aligning environmental efforts locally. Many seek to offset emissions within their operational areas, benefiting local communities and ecosystems.

28%

of respondents highlight transparency as a major barrier to purchasing credits

[1]https://www.gov.uk/guidance/woodland-carbon-guarantee

The importance of measurable impact

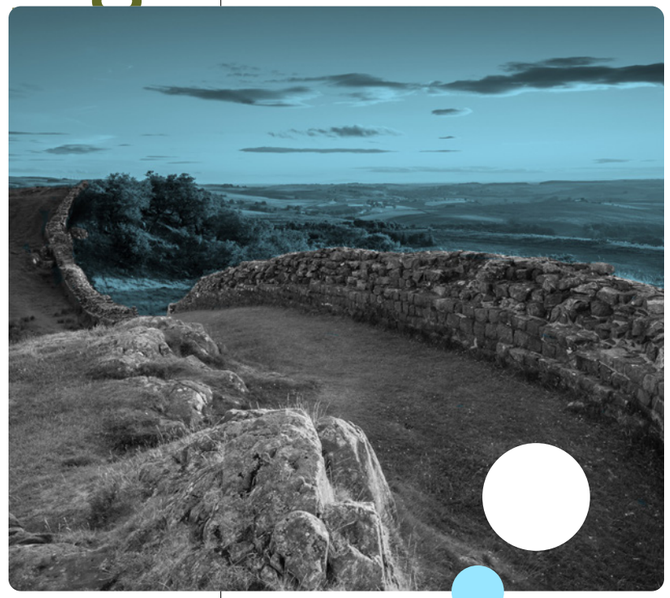
The preference for UK-based credits is not just about location – it's about trust. Businesses want to see evidence of real-world impact, and **UK projects offer tangible benefits through robust regulatory frameworks and the ability to directly engage with and monitor projects.** For instance, afforestation projects under the WCC align corporate investments with national sustainability goals and enable companies to demonstrate their commitment to meaningful change.

Transparency requires more than just monitoring. It also demands collaboration between project developers, regulators, and businesses to create consistent standards and foster market reliability. The UK government's nature markets framework provides a roadmap for developing these markets, including biodiversity and water quality. These initiatives ensure that UK-based credits are leading the way in environmental accountability.

A credible pathway to net zero

UK-based carbon credits represent a critical opportunity for businesses to bridge the gap between ambition and action. **By choosing projects that are traceable, verifiable, and aligned with national sustainability goals, companies can move forward with confidence,** knowing their investments contribute to both environmental and reputational success. The UK's efforts in legislating net-zero commitments and fostering high-integrity markets underscore its role as a global leader in sustainable solutions.

UK companies are at the forefront of climate action, with a significant proportion participating in SBTi. This leadership extends to UK-based carbon credits, which are setting new benchmarks for trust and transparency. By aligning their strategies with these high-quality solutions, businesses can take meaningful steps toward achieving their net-zero goals while supporting the local and global environment.



Alex Godfrey, Investment Director, Natural Capital, Octopus Investments

"Government incentives play a crucial role in accelerating action. The UK government has done an excellent job of pushing these nature markets, but continued support for high-quality carbon credits is essential to encouraging businesses to act."

Case study: The Octopus-Treeconomy partnership

Octopus Investments is working with Treeconomy, a leading innovator in monitoring and verification technology. Backed by grant funding awarded by the UK Space Agency, Treeconomy and Octopus will embed the use of satellite-based analytics and data tools to guide and support investment decisions related to nature-based carbon projects, such as afforestation.

The project will use investment underwriting principles to develop, refine and integrate a satellite data product within Octopus' standard due diligence, evaluation, and reporting workflows.

By integrating earth observation technology into these processes, Octopus will gain unique insights that will strengthen its strategy through robust and data-driven decision-making. The technology will increase both speed and efficiency to help finance reach quality nature restoration projects more quickly.

41%

of respondents stated that creating co-benefits would be a top reason for selecting a natural capital project of carbon credit provider.

The technology also ensures transparency, giving businesses the confidence that their investments are delivering tangible environmental benefits. Treeconomy's projects adhere to the WCC, guaranteeing strong verification and monitoring processes. Corporate partners benefit from visiting project sites where they can see, experience, and test the impact of their investments firsthand.

Beyond carbon sequestration, these projects contribute to biodiversity restoration, water quality improvements, and community engagement. This is key, given that 41% of our survey respondents stated that creating co-benefits would be a top reason for selecting a natural capital project or carbon credit provider.

Dr Craig Brown, Investment Director at the UK Space Agency

"We're looking forward to working with Octopus and Treeconomy on this project, which will trial how satellite data can help with the allocation of private finance towards nature and conservation efforts. This is a great example of how satellite data can be used to grow our green economy."

Understanding the cost of delay and importance of action

The journey to net zero is not just about ambition – it's about timing. **According to our survey, the second leading factor behind companies not yet buying carbon credits is the high cost they associate with these purchases (29%).** Yet, delaying investment in carbon credits can lead to financial, reputational, and environmental consequences. As the cost of carbon credits continues to rise and scrutiny of corporate sustainability grows, the message for businesses is clear: the cost of inaction is far greater than the cost of action.

Financial implications of delay

The carbon credit market is evolving quickly, and demand for high-quality credits is increasing. Our research shows that 73% of companies plan to use carbon credits as part of their net-zero strategies, driving up competition for these resources. This is not a matter of if but when: every company committed to SBTi will need to source carbon credits. As the market evolves, there will be a tipping point where demand far outpaces supply, causing prices to rise significantly. With costs expected to rise, making an early investment is a financially prudent choice for businesses seeking to manage long-term expenses.

It is also worth highlighting that the difference between buying verified credits and Pending Issuance Units (PIUs), which is a commitment to deliver a carbon credit in the future. Businesses can only retire a verified credit to offset their emissions once, but given the nascence of the market and the fact that almost all UK carbon credit sales to date have been PIUs, it underscores the need for companies to take action and procure credits for future use.

73%

of companies plan to use carbon credits as part of their net-zero strategies, driving up competition for these resources.

By securing PIUs now, companies can ensure these credits will be verified and available when they reach their net-zero target year, avoiding a scenario in 20 years where verified credits are unavailable due to high demand.

Reputational risks of inaction

Delaying action also carries significant reputational risks. In a market where 92% of senior leaders express confidence in meeting net-zero goals, stakeholders increasingly expect businesses to demonstrate tangible progress. Many companies have publicly committed to purchasing credits – they will only be able to delay fulfilling these promises for so long. Companies that fail to act may face accusations of complacency, undermining their credibility with investors, customers, and employees. More than this, scarcity is an issue – companies may not be able to buy credits when they need them because of availability.

This risk is particularly pronounced in the context of greenwashing. Businesses that delay their sustainability efforts – or invest in poor integrity instead of verified credits – expose themselves to heightened scrutiny and potential reputational damage. Early investment in high-quality, transparent credits helps companies stay ahead of expectations, meet stakeholder demands, and demonstrate genuine commitment to climate action.

Gabi Slemer, Investment Director, Natural Capital, Octopus Investments

"We often see hesitation as businesses weigh costs and complexities, but the reality is that delay only increases these challenges. Taking action now allows companies to capitalise on today's opportunities rather than struggle with tomorrow's constraints."

We need to consider our climate

The environmental consequences of delay are perhaps the most pressing. Data from the beginning of 2025 shows that 2024 was the world's hottest year on record, warming by more than 1.5 degrees Celsius for the first time.[1] Climate change is accelerating, and the need for action has never been greater. Every year that passes without meaningful reductions in emissions increases the burden on future efforts. Not considering investments into carbon removal credits or natural capital projects means missing opportunities to support solutions that can be making a measurable impact.

To meet the Paris Agreement's warming targets, we must slow the pace of warming now. Philanthropy and charity alone are insufficient – **large-scale institutional investment is essential to restore nature and sequester carbon at scale.** Companies that engage with VCMs play a crucial role in making these markets investable, unlocking the institutional capital needed to achieve meaningful environmental change.

As defined by SBTi, **carbon removal credits are the most effective way to offset hard-to-abate emissions.** Beyond removing atmospheric carbon, these projects restore ecosystems, enhance biodiversity, and support local communities. However, delaying action jeopardises these co-benefits, which are key to delivering the broader impact of natural capital investments.

Taking the lead

Businesses that invest early in high-quality carbon credits and natural capital projects can secure cost advantages, build trust with stakeholders, and make meaningful contributions to the fight against climate change. Moving forward on this journey isn't just about avoiding future costs – it's about positioning your business as a leader in transitioning to a low-carbon economy.

[1]European Copernicus climate service,January 2025.

Empowering businesses to move forward

Achieving net zero demands clear strategies, informed decision-making, and coordinated efforts.

While businesses have made strides in incorporating carbon credits into their decarbonisation plans, the path to effective climate action requires actively removing carbon from the atmosphere and rebuilding ecosystems for a more resilient planet. This demands deeper integration, education, and collaboration across teams, industries, and stakeholders.

Breaking down silos

Our research shows that **76% of net-zero budgets are controlled by sustainability teams, followed by finance teams (64%) and marketing (28%).** While these departments play a critical role, a siloed approach may hinder overall progress.

Carbon credits are not just a purchasing decision – they are a strategic tool that must be embedded in a company's broader sustainability and operational goals.

Senior leadership and sustainability teams must work closely with finance, marketing, and operations to create a unified strategy. Viewing carbon credits as part of an integrated solution – not an afterthought – ensures that businesses can balance emissions reductions with high-quality offsets while maintaining transparency and accountability.

Collaboration drives greater impact

The complexity of the carbon credit market means businesses cannot tackle its challenges alone. Asset managers, project developers, conservation organisations, regulators, and governments must work together to build trust and improve market clarity.

Businesses need guidance on selecting high-quality, verifiable credits, while governments must establish regulatory frameworks that ensure fairness and transparency. Incentives for high-quality removal credits and streamlined verification processes for domestic projects are critical to fostering market growth and enabling businesses to act with confidence.

Along with credits, natural capital projects also achieve their greatest impact when stakeholders collaborate. **Partnerships are needed to create the conditions for large-scale, high-impact projects.** These collaborations ensure that projects align with regional environmental priorities and deliver measurable benefits.

For example, conservation experts ensure the ecological integrity of regenerated ecosystems, promoting biodiversity, climate resilience, and the survival of key species. These efforts can regenerate rural economies through job creation, community engagement, and sustainable land management practices that respect local rights and resource access. Investors and companies together provide the capital and strategic oversight needed to foster a well-functioning market for natural capital.

From knowledge to action – making net zero achievable

For businesses to be empowered to take meaningful action, they must be equipped with the right tools, resources, and partnerships to navigate the carbon credit market confidently. This includes:

- **Investing in education:** Understanding the broader market and pathways to net zero.
- **Choosing credits wisely:** Understanding what you are buying, prioritising traceable, high-integrity credits that align with values and sustainability goals.
- **Collaborating to drive industry-wide impact:** Working together to create a transparent, effective market for carbon credits.

Leading the way

By treating carbon credits as part of a holistic strategy, businesses can deliver measurable results. This approach builds and maintains stakeholder trust. Collaboration across industries and governments will be pivotal in scaling the market and guaranteeing long-term credibility.

The future of the carbon credit market depends on education, transparency, and decisive action. This isn't just about the credits – it's about investing in nature to protect against climate change and restore biodiversity at scale.

Companies play a vital role in enabling the financial flows that make large-scale restoration projects possible. And UK businesses are uniquely positioned to achieve net zero while setting a global example for sustainable growth.

Alex Godfrey, Investment Director, Natural Capital, Octopus Investments

"The consultation to include carbon dioxide removal credits in the UK compliance emissions trading scheme would further bolster confidence in this market mechanism."

Unlocking opportunities in natural capital projects

As businesses and investors embrace their responsibility to build a sustainable future, natural capital projects have emerged as a critical avenue for achieving net-zero goals and directing financial flows into nature. **Despite their potential, a significant funding gap remains in restoring ecosystems and addressing biodiversity loss,** presenting both challenges and opportunities for action.

Natural capital – more than just carbon credits

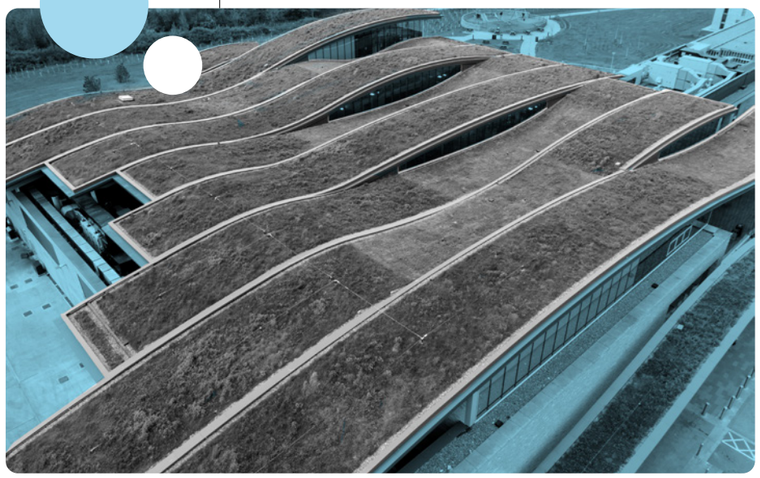
The growing interest in natural capital stems from the urgent need to address the nature crisis. While traditional carbon offset strategies have played a role, **natural capital projects are gaining attention for their ability to deliver verifiable carbon removal alongside co-benefits,** such as biodiversity enhancements, improved water quality, and social impact.

Afforestation, in particular, is emerging as a scalable solution for sequestering atmospheric carbon while restoring degraded land and creating new ecosystems. By planting trees in areas that were not previously forested, businesses can contribute to long-term carbon removal while enhancing local biodiversity, such as by encouraging life on the forest floor. However, natural capital projects are not just about planting trees – they encompass diverse initiatives such as regenerative agriculture, wetland restoration, and soil regeneration.

Shifting perceptions: Institutional investment in natural capital

Historically, natural capital initiatives were often associated with philanthropy and charity. However, the evolving landscape around corporate sustainability and the need for measurable impact have brought these projects into the spotlight for institutional investors. These investors are increasingly recognising the potential for competitive returns alongside environmental stewardship.

As climate-related financial disclosures like the Task Force on Climate-related Financial Disclosures (TCFD) and the Task Force on Nature-related Financial Disclosures (TNFD) become mandatory, **institutional investors are exploring natural capital as an opportunity as well as a a hedge against nature-negative investments in their portfolios.** At the same time, businesses and institutional investors are learning from one another, building confidence in natural capital's potential to generate returns and achieve sustainability goals.



Seizing the opportunity

For businesses and investors, **natural capital represents a compelling opportunity to align financial goals with environmental responsibility.** Supporting high-quality, measurable impact projects – such as afforestation and peatland restoration – can unlock value creation while addressing critical global challenges like climate change and biodiversity loss.

By taking action, **companies and investors can position themselves as leaders in transitioning to a low-carbon economy while contributing to a resilient and thriving planet.** Beyond offsetting emissions, these investments make large-scale restoration projects viable and ensure that private capital is pivotal in rebuilding ecosystems for future generations.

Concluding comments

Natural capital projects and carbon credits represent a transformative opportunity for businesses and investors to align financial goals with meaningful environmental impact.

The success of these solutions depends on informed, and decisive action. As global pressures to achieve net-zero targets intensify, the time for ambition alone has passed. Now, businesses must bridge the gap between intent and measurable outcomes to safeguard the planet for the future.

Key takeaways for action:

- **Education is essential**

  Knowledge gaps across the carbon credit market, including the differences in types of credits and their outcomes, pose significant risks. **Without understanding these nuances, businesses risk undermining their net-zero goals and exposing themselves to reputational harm.** Education should therefore be prioritised to arm business leaders with the right questions to ask when engaging with credit purchases.

- **High-quality carbon credits are critical**

  Decarbonisation alone cannot address the full scope of emissions. As the SBTi clarifies, **high-quality removal credits are a solution for addressing hard-to-abate emissions.** Companies prioritising transparent, traceable solutions can confidently meet their targets while contributing to measurable environmental outcomes.

- **Natural capital is the foundation**

  Investing in natural capital projects goes beyond supporting carbon removal; it's the first step toward restoring ecosystems, enhancing biodiversity, and addressing the water crisis. **Carbon credits are the tip of the iceberg for nature restoration** – without getting them right, the broader benefits of biodiversity and water regeneration is harder to achieve.

A shared journey toward a sustainable future

The path to net zero is about more than meeting regulatory targets – it is about building a lasting legacy of climate leadership and ensuring a resilient planet for future generations. **Businesses that act decisively will define what it means to lead in transitioning to a low-carbon economy.**

By moving forward together, businesses, governments, and investors can ensure their actions contribute to achieving net-zero goals and leave a lasting, positive impact on the planet.

If you're curious about continuing on this journey, and want to join the conservation, we'd love to speak with you. Get in touch via our website here.

Mike Toft, Senior Fund Manager, Octopus Investments

"The window for meaningful climate action is narrowing, but those who strive forward will find themselves leading the way in a new era of sustainable growth."

Glossary

Key concepts

Net zero: Reducing carbon emissions to a small amount of residual emissions that can be absorbed and durably stored by nature.[1]

Natural capital: The world's stock of natural resources, including geology, soil, air, water, and living organisms, provide ecosystem services essential for human life and economic activity.

Ecosystem services: Benefits obtained from ecosystems, including provisioning (e.g., food, water), regulating (e.g., climate control, carbon storage), cultural (e.g., recreational), and supporting services (e.g., nutrient cycling).

Biodiversity: The variety of plant and animal life in a particular habitat or ecosystem. High biodiversity contributes to the resilience and health of nature.

Nature-based solutions (NbS): Actions to protect, sustainably manage, and restore ecosystems to address societal challenges, such as climate change, food and water security, and disaster risk.

Carbon Credits and Markets

Carbon credits: Tradable certificates representing the reduction, avoidance, or removal of one tonne of carbon dioxide equivalent (CO_2e) from the atmosphere.

Carbon removal credits: Credits generated through activities that physically remove carbon dioxide from the atmosphere, such as afforestation or soil sequestration.

Avoidance credits: Credits generated by preventing emissions that would have occurred otherwise, such as through avoided deforestation.

Carbon market: A system where carbon credits are bought and sold to offset greenhouse gas emissions. This includes both compliance markets, which are regulated by policies, and voluntary carbon markets (VCM), where companies and individuals voluntarily purchase carbon credits to support sustainability goals. Unlike centralised exchanges, many transactions occur over-the-counter (OTC).

Standards and Certification

UK Woodland Carbon Code (WCC): A government-backed certification standard for woodland carbon projects in the UK, ensuring project credibility, transparency, and measurable carbon sequestration aligned with the UK's climate goals.

Verra: An international certification body that oversees standards for carbon credits, including the Verified Carbon Standard (VCS), which supports high-integrity carbon credit projects globally.

REDD+: A framework developed under the United Nations Framework Convention on Climate Change (UNFCCC) that aims to reduce deforestation and forest degradation emissions while promoting conservation and sustainable management of forests.

Principles of High-Quality Carbon Credits

Additionality: Ensures that carbon reductions or removals are beyond what would occur without the project, providing genuine climate benefits.

Permanence: Requires that carbon removals are maintained for a long period, minimising the risk of reversal.

Verification: Independent assessment to confirm that reported reductions or removals have happened and meet required standards.

Validation: An assessment which estimates the total carbon sequestration throughout the life of a project.

Transparency: Clear and open reporting on methodologies, impacts, and verification processes to build trust and ensure credibility.

Social impact: Projects should contribute positively to local communities, avoiding displacement and ensuring equitable benefits.

Biodiversity: Projects should promote ecosystem health and the survival of native species, avoiding single species, or monoculture plantations.

Carbon Projects and Units

Nature-based carbon removal projects: Initiatives using natural processes to remove carbon dioxide from the atmosphere, including afforestation and peatland restoration.

Pending Issuance Units (PIUs): Future carbon credits issued in advance based on projected removals, typically from afforestation or other long-term projects. These credits can be bought and sold before verification. They are also referred to as 'ex-ante' credits.

Verified Carbon Units (VCUs): Carbon credits representing verified carbon removals or reductions are issued after a project achieves its projected outcomes and undergoes independent verification. Only verified credits can be retired to offset emissions, also called 'ex-post'.

Investment

Impact investing: Investments made with the intent to generate positive, measurable environmental and social impacts alongside financial returns, often directed toward natural capital projects.

Regulatory Frameworks and Initiatives

Science-Based Targets Initiative (SBTi): An organisation that provides frameworks for companies to reduce emissions in line with climate science. It guides businesses in setting and achieving net-zero targets.

UK net zero targets: National goals for achieving net-zero greenhouse gas emissions by 2050, supported by government initiatives and regulatory standards.

Voluntary Carbon Markets Integrity Initiative (VCMI): A framework for high-integrity corporate claims and strategies in voluntary carbon markets, ensuring credits are used responsibly within broader decarbonisation plans.

SBTi for Nature (SBTN): A framework under development to guide businesses in setting science-based targets for biodiversity and ecosystems.

UK Government Carbon and Nature Markets Principles: Guidelines aimed at creating a robust framework for developing and scaling carbon and nature markets in the UK.

ICVCMI: The integrity council for the voluntary carbon markets initiative. This is a global framework for high integrity carbon credit project delivery. This uses the core carbon principles for what good looks like.

Relevant Environmental Terms

Afforestation: Planting trees in areas that were not previously forested to increase carbon sequestration and biodiversity.

Reforestation: Replanting trees in areas that were previously forested but have been cleared or degraded.

Regenerative agriculture: Farming practices that restore soil health, increase biodiversity, and improve water retention, contributing to carbon sequestration.

Peatland restoration: Efforts to restore degraded peatlands, which are critical in sequestering carbon for the long term, although often categorised as avoidance credits.

Virgin forests: also known as old-growth or ancient forests, they are forests that have developed over a long period of time with little human disturbance.

[1]Source: https://www.un.org/en/climatechange/net-zero-coalition

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