

# More than Hot Air

Why the UK must become the home of a Voluntary Carbon Market that delivers on its game-changing potential.

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## Authors

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## About Startup Coalition

Startup Coalition, formerly the Coalition for a Digital Economy (Coadec), is an independent advocacy group that serves as the policy voice for Britain's technology-led startups and scaleups.

Startup Coalition was founded in 2010 by Mike Butcher, Editor-at-Large of technology news publisher TechCrunch, and Jeff Lynn, Chairman and Co-Founder of online investment platform Seedrs. Startup Coalition works across a broad range of policy areas that matter the most to startups and scaleups: access to talent, access to finance & regulation. We have over 3,500 startups on our mailing list. Startup Coalition is also represented on the Department for Business and Trade's Smart Data Council and on the Government's Digital Economy Council.

In 2022, Startup Coalition convened the ClimateTech Policy Coalition, consisting of the Startup Coalition, Undaunted, techUK, Tech Nation, Cleantech for UK, and TechZero. Together they represent a cross-section of entrepreneurs, inventors and innovators on the forefront of climate technology, or ClimateTech. The coalition publishes an annual report highlighting low to no cost policy opportunities to unlock climate innovation. The latest of these reports, from November 2023, can be found [here](#). In March 2024, Startup Coalition launched its inaugural ClimateTech Index, tracking the 1,000 best funded UK-headquartered ClimateTechs, which can be found [here](#).

## Acknowledgements

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# Executive Summary

At COP29 in Azerbaijan, Prime Minister Keir Starmer upped the UK's climate ambition - with the UK now committed to cutting its carbon emissions by 81% on 1990 levels by 2035. This is a formidable challenge, and one that is not possible without concerted decarbonisation across the economy.

At its core, the challenge of combatting climate change is one of quantifying an externality: today we do not pay for emitting harmful greenhouse gases. Whilst reducing emissions at source must be the priority, carbon markets offer a way to price in the cost of carbon. All over the world, Governments have introduced regulated "compliance markets" where businesses are mandated to pay for what they emit, but these only cover 24% of global emissions today.<sup>1</sup> For the remaining three quarters, the Voluntary Carbon Market (VCM) is the only source of funding to reduce carbon emissions in the atmosphere, maintain carbon sinks, and avoid actions to further accelerate climate change.

Once a wild west, the VCM has matured thanks to industry collaboration and standards, but in recent years, it has come under attack. From firms making spurious claims to green-wash their products, to the underlying credits being no more than hot air, confidence in the market is low. But the impact of this is profound: if we stop funding projects that remove carbon or incentivise the protection of carbon sinks, then the net result will be a fast-track to climate catastrophe.

**At Startup Coalition, we think that technology is the answer to solving the puzzle of maximising quality in the VCM. This is where the UK's £1.7bn startup sector comes in.**

From startups removing CO2 from thin air, to firms using satellites to monitor tree planting, the UK is home to a carbon markets startup ecosystem that has raised over £790m in investment, and today employs over 1,500 people across the country. These startups are world-leading, using cutting edge technology to guarantee integrity and quality across the full end to end supply chain of carbon credits in the voluntary carbon market (VCM).

The Carbon Markets startup sector has made great strides, but can only achieve so much without Government support and this report outlines the role of the UK Government in maximising the potential of the VCM. Indeed, when our Carbon Markets startup sector is combined with our world-leading financial services sector, the UK is in pole position to be the home of high quality, high-tech carbon markets. To achieve this, the UK Government should:

1. Publish a voluntary carbon market consultation as soon as possible. This is our most important recommendation.
2. Create a "claims sandbox" to enable firms to collaborate with regulators in making high-integrity claims about their use of novel carbon credits.
3. Subsidise access to tools that enable small businesses to quantify their emissions, enabling them to take the first step in accessing the VCM.
4. Use the Smart Data Bill to unlock data sets that increase integrity in the VCM.
5. Fund Greenhouse Gas removals through the UK Emissions Trading Scheme.

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<https://www.worldbank.org/en/news/press-release/2024/05/21/global-carbon-pricing-revenues-top-a-record-100-billion>

6. Create an Office of Carbon Removal to oversee UK based removal activities.
7. A national database needs to be established to track all VCM transactions, credit issuances and retirements.

# Introduction

In most transactions, all over the world, every day, there is a missing cost. This missing cost is the cost of carbon. Its absence in everything from global financial flows, to your everyday meal deal, means that the impact of the emissions embodied in the goods and services purchased is not priced in. It is an externality.

**If we are to combat the climate crisis, we must confront this externality head-on.**

A “carbon price” that covers all the constituent parts of an economy is often viewed as the answer, but this is politically contentious, and practically complex. It is also not going to happen in the short term, and the extent of the climate crisis demands action now.

In this report we delve into the VCM supply chain and why and how firms operate within the VCM; tackle the myths and acknowledge the flaws and bad press surrounding the market. The report explores different types of carbon credits and their potential relationship with the UK Emissions Trading Scheme as well as the opportunity presented by the Government’s GGR ETS Integration consultation.

The report goes on to discuss industry and government efforts to date around carbon markets; and the role of big and small players within the VCM including the Carbon Markets Innovation Forum (CMIF) and the sector’s demands from Government. Finally, we outline a Blueprint containing **three tracks**: 1) Government **consultation** on the VCM, 2) increasing integrity for the **demand** and 3) **supply** of credits; followed by our summarised list of recommendations that we believe will better the market as a whole.

To set the scene, however, we must start with the two ways to price carbon into the UK economy today: Compliance Markets (like the UK ETS) and the Voluntary Carbon Market (VCM).

## Compliance Markets - the UK ETS

Governments across the world have introduced compliance markets, in the form of a carbon tax or often organised as cap and trade schemes, where specific organisations from high emitting and hard to abate sectors are allocated or allowed to bid for and then trade a number of permitted pollution credits, known as allowances. These schemes place a ceiling on the amount of carbon that can be emitted. To date according to the World Bank there are 75 ‘carbon instruments in operation today covering almost a quarter of global emissions.’

One “allowance” represents the permitted emission of one tonne of CO<sub>2</sub> (with non-CO<sub>2</sub> greenhouse gases [GHGs] converted into CO<sub>2</sub> as a common unit, known as CO<sub>2</sub> equivalent, or CO<sub>2</sub>e). The UK compliance market is the UK Emissions Trading Scheme (UK ETS).

Under the UK ETS, auctions for carbon allowances are held every two weeks. The allowances are determined by scheme administrator, the UK Emissions Trading Scheme Authority, with a certain number given out at the start of each trading period. Firms are incentivised to use less than their auctioned allowances, as they can then sell their surplus to firms that require more than their allocation. The “price”

of these allowances is therefore a proxy for emissions, since a rational actor will only purchase a credit from the market if it is cheaper for them to do so than decarbonise their processes. The number of freely allocated allowances is reduced over time, limiting supply, driving up price, and increasing the incentive to decarbonise.

### Article 6

As part of the Paris Agreement at COP21, a new cooperative mechanism was introduced to facilitate the transfer of carbon credits between nations to support them to meet their emissions goals. “Article 6” is still being operationalised, but will feature two market mechanisms for trading of allowances:

- Article 6.2: “Internationally Transferred Mitigation Outcomes” (ITMOs) - the bilateral trading of emissions reductions and removals
- Article 6.4:
  - 1) Mitigation Outcomes (which will be correspondingly adjusted)
  - 2) Mitigation Contributions (which will not be correspondingly adjusted and will essentially be voluntary credits using the 6.4 UN methodologies) or “Mitigation contribution A6.4ERs” will be a new type of internationally transferable credit administered by the UNFCCC
  - ITMOs can also be traded under Article 6.2

At COP29 in November 2024, climate negotiators agreed to a set of principles to progress standards to enable the carbon markets mechanism introduced by Article 6.4 in an excellent step forward for international carbon markets. At Startup Coalition, we look forward to understanding how this new market will interact with national compliance and private sector voluntary carbon markets.

## The VCM

Cap and trade schemes, like the UK ETS, work with a limited number of targeted actors. In contrast, for smaller private organisations and individuals, the only way to price-in carbon today is through the Voluntary Carbon Market (VCM).

The VCM is a market whereby individuals or businesses can purchase carbon credits. These credits are not legally required or mandated which is why it is a voluntary market. Purchased credits can then either be sold on to other actors or “retired”, whereby they are permanently removed from the market, thus crystallising the GHG abatement.

### Why do firms purchase credits on the VCM?

From the outset, it is fundamental to ground discussion of the VCM in the reality of the incentives at play. In contrast to the UK ETS where firms are compelled to participate, the VCM is by definition voluntary, meaning firms are either participating because of philanthropic reasons, reputational purposes or gaining a competitive advantage. The VCM is often seen as a precursor to expanding compliance programs as well as an internal incentive to reduce emissions pre-regulation, by setting a self imposed internal carbon price through credit purchases.

On the one hand, people or firms purchase credits on the VCM because they believe it is the right thing to do: they believe that purchasing credits on the VCM can support climate action, and/or offset the environmental impact of their everyday actions and purchases.

On the other hand, and often in addition to philanthropic reasons, actors want to be able to make claims about the credits they purchase, to look good. This may be to give themselves a marketing advantage to differentiate themselves from their competitors to increase their brand value to consumers. This is where *offsetting* occurs - firms purchase credits to *offset* their emissions elsewhere, resulting in a reduced overall footprint. To gain value from their credit purchase, firms will then make public claims, including through marketing of “net zero” or “carbon neutral” products.

Critically, we shouldn't kid ourselves that participation in the VCM is inevitable for anyone. Consequently, if we want finance to be flowing to the projects that the VCM supports, we must leverage these motivations.

In addition, we should set out from the outset that from a purely environmental perspective, purchasing credits through the VCM should never be the first thing an organisation does to reduce their emissions footprint. Indeed, as we will set out later, central to increasing the integrity of the VCM is recognising its place in the cadence of corporate climate action, as part of the ‘mitigation hierarchy’.

## What types of credits exist on the VCM?

There are two main types of credits available on the VCM today, offered either directly by projects, or through third party marketplaces:

- Reductions: projects that result in a reduced amount of emissions from an activity relative to a baseline. Examples of these credits include increasing the fuel efficiency of an activity, such as domestic cooking in rural areas through the introduction of cooking stoves, or reducing methane emissions in agriculture. In 2023, credits that were just reduction or reduction and removals accounted for 95.7% of volume in the market according to Ecosystem Marketplace.<sup>2</sup>
- Removal: projects that result in the direct removal of GHGs from the atmosphere. Removal occurs either through nature-based solutions like reforestation, or engineered solutions, such as enhanced weathering, biochar, or direct air capture (DAC). These credits constitute only 3% of those available on the market, of which 99% are nature-based. Under removals credits are avoidance projects that *avoid* the release of GHGs, which would have occurred had the project not been funded. ‘Avoidance’ deforestation credits for example constitute around a fifth of all carbon credits ever to have been issued on the voluntary carbon market as of 2023.<sup>3</sup>

The worldwide VCM is set to grow exponentially in size over the next few years, and is predicted to be worth \$50bn by 2030.<sup>4</sup> This equates to billions of dollars flowing to vital environmental projects which reduce GHG emissions in the atmosphere.

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<sup>2</sup>

[https://3298623.fs1.hubspotusercontent-na1.net/hubfs/3298623/SOVCM%202024/State\\_of\\_the\\_Voluntary\\_Carbon\\_Markets\\_20240529%201.pdf](https://3298623.fs1.hubspotusercontent-na1.net/hubfs/3298623/SOVCM%202024/State_of_the_Voluntary_Carbon_Markets_20240529%201.pdf)

<sup>3</sup> [https://www.rainforestfoundationuk.org/wp-content/uploads/2023/07/Carbon-Credits\\_final\\_ENG.pdf](https://www.rainforestfoundationuk.org/wp-content/uploads/2023/07/Carbon-Credits_final_ENG.pdf)

<sup>4</sup> [Where the Carbon Offset Market Is Poised to Surge Morgan Stanley - https://www.morganstanley.com/ideas/carbon-offset...](https://www.morganstanley.com/ideas/carbon-offset...)

## The VCM Supply Chain

In order for a carbon credit to have any value, it must correspond to a quantifiable abatement of GHGs. In order to ensure that a credit is of robust quality, a number of organisations, like Verra and Gold Standard now offer services to validate integrity, with many subscribing to agreed upon industry standards which will be discussed shortly. In this way, the VCM supply chain has matured in recent years to include a number of actors.

### 1 Carbon Accounting

The front door for many firms are services that quantify emissions (representing a customer's demand for credits).

### 2 Credit Marketplaces

Platforms that aggregate credits, sometimes with direct or third party verification; they may also maintain a register of credits sold.

### 3 VCM Intermediaries

Firms that support the integrity of the market through software, infrastructure and ratings.

### 4 Project Developers

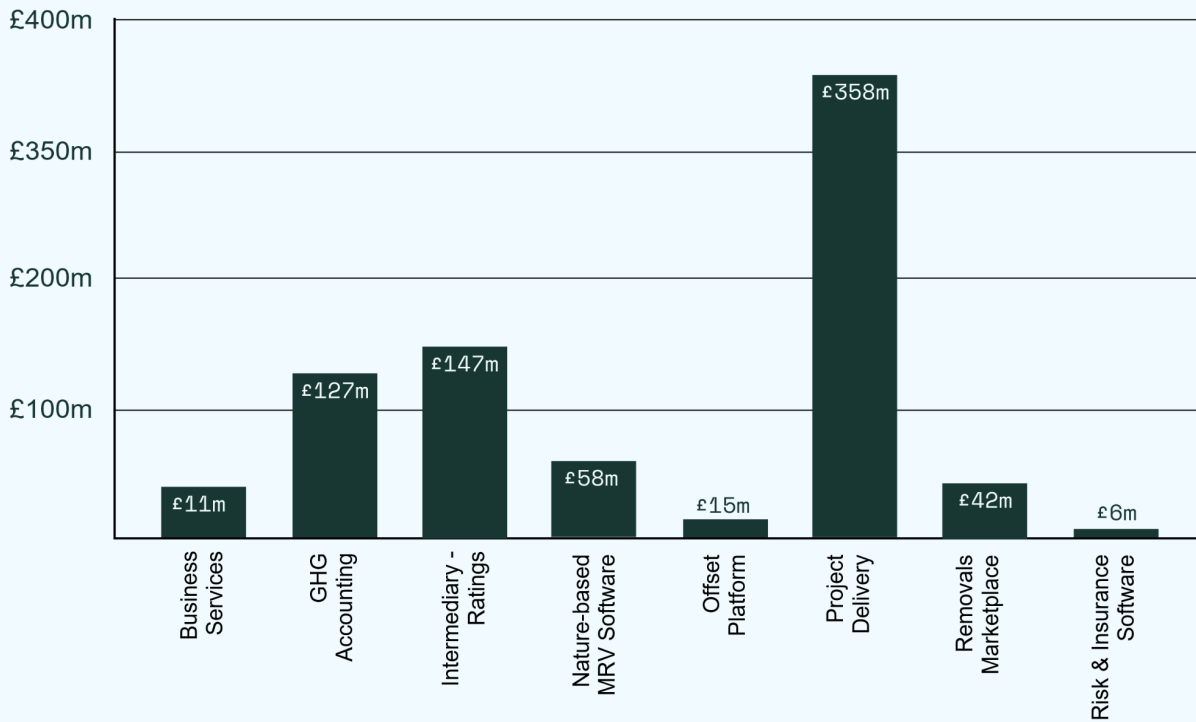
The folks undertaking the activities that produce the carbon credits.

Many of the firms in this supply chain are startups. In March 2024, Startup Coalition released its first ClimateTech Index, an analysis of the 1,000 ClimateTechs that have raised the most private investment.<sup>5</sup> The Index featured 70 firms that are engaged in the carbon market, including firms from across the supply chain above. Between them, these firms have raised £791m, were valued at £1.7bn in 2023, have secured £38m in grant funding, and employed nearly 1,500 people in 2023. There have been three exits in the firms to date. This carbon markets startup sector is a direct response to industry demand for the VCM, and the need for increasing integrity of the market itself. The sector now represents a growth opportunity to the UK in and of itself, too.

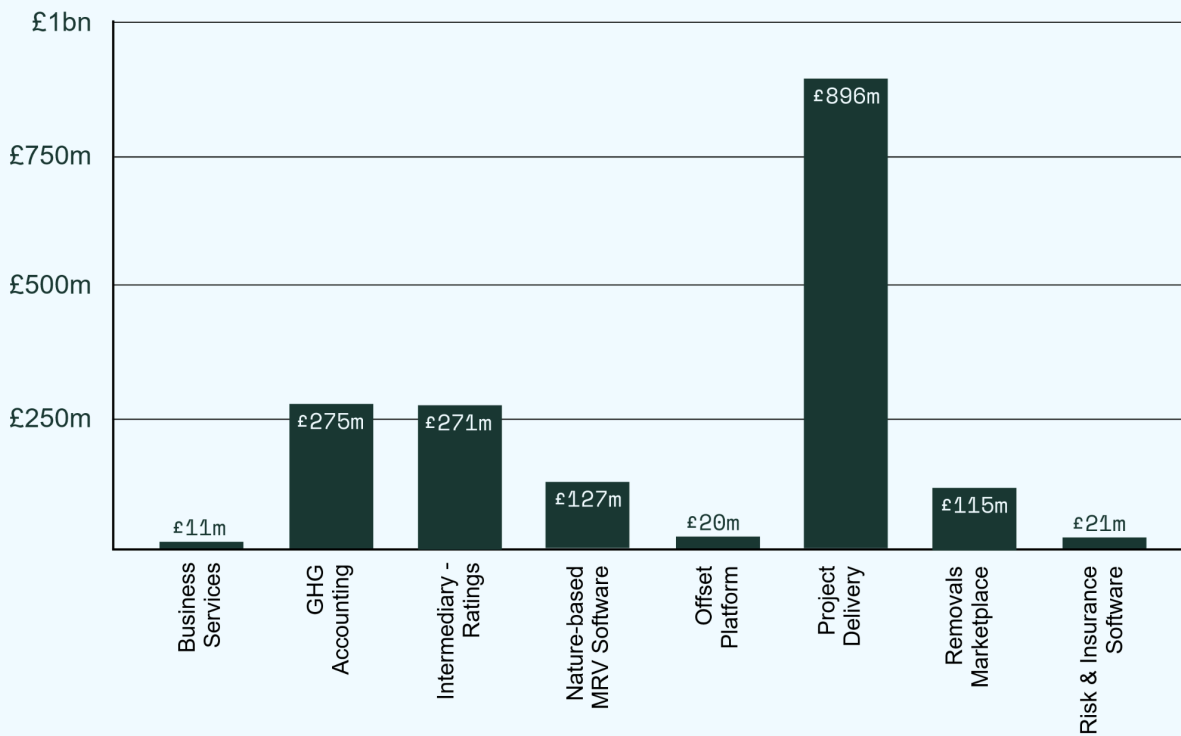
<sup>5</sup> <https://startupcoalition.io/news/2024-climatetech/>



**A. Fundraising totals for sub-sectors within the UK Carbon Markets Startup Ecosystem**



**B. 2023 values of sub-sectors within the UK Carbon Markets Startup Ecosystem**



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<sup>6</sup> The data used to build these graphs was gathered from analysis that Startup Coalition published in March 2024 as part of its ClimateTech Index.

## Startup Case Studies

The UK is host to a £1.7bn Carbon Markets startup sector, creating high-skilled jobs, contributing to UK growth, and, most importantly, underpinning a high integrity, high quality, and high tech carbon market.

### Sylvera



Sylvera is a carbon data platform providing the tools, and workflows to move effective investments to real climate solutions. Global corporations, financial institutions, and governments rely on Sylvera to confidently track, benchmark and invest in projects that truly move the needle.<sup>7</sup>

Sylvera ensures buyers have the latest data at their fingertips, enabling quick, efficient responses to market dynamics by allowing them to:

- Discover projects with a 20,000+ project catalogue containing both on-registry as well as early-stage projects from the market's leading developers and gain insights with country and methodology profiles to ensure that they can evaluate and contrast potential risks early on.
- Evaluate which projects to procure with independent, in-depth Ratings and pre-issuance assessments for confident carbon markets investments that allows them and businesses to shortlist and conduct extensive due diligence of carbon projects.
- Act on carbon procurement strategies leveraging Sylvera's Connect to Supply, connecting directly to carbon credit supply. Coupled with Sylvera's pricing data it's a complete solution to source and secure the credits needed to meet ambitious net-zero goals.

### Abatable



Abatable is on a mission to enable all organisations to build a thriving future for climate, nature and people.<sup>8</sup> It does this by developing the tools organisations need to confidently navigate carbon markets and find the right partners, understand market risk and amplify their planetary impact.

### Abatable

For many companies looking to tackle climate change through the VCM, the market can feel overly complex. The VCM as it stands today is also relatively opaque and lacks common indicators that define most markets – such as the standardisation of quality and pricing benchmarks. Abatable's solutions are designed to support businesses in navigating the VCM. More broadly the company aims to build greater transparency into the market to enable it to reach its full potential in tackling climate change.

Abatable focuses on two core areas:

- **Carbon credit sourcing:** Its end-to-end carbon credit sourcing solutions enable corporates, carbon credit buyers and investors to connect directly to well-matched, high-quality carbon

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<sup>7</sup> <https://www.sylvera.com/>

<sup>8</sup> <https://abatable.com/>

projects.<sup>9</sup> Abatable has built up a network of over 8,500 carbon projects across 129 countries, which companies can access through straightforward and standardised requests for proposals via its in-house procurement platform. Abatable can then assess the quality of projects submitted to help buyers make informed decisions on the carbon credits they're purchasing.

- **Carbon market intelligence:** Abatable's market intelligence platform gives carbon market participants the insights and tools to de-risk and succeed in a rapidly evolving landscape.<sup>10</sup> It provides a unique level of access to carbon policy, carbon spot and forward pricing, carbon credit supply and market development insights, informed by first-hand relationships with market participants. Abatable's carbon sourcing solutions help power the company's market intelligence offerings, providing proprietary data and unique insights into prices and supply and demand dynamics in the market.

Abatable places carbon project developers at the heart of its operations, which allows it to easily help companies navigate the market to find the right credits for them. On top of this, the team's strong relationships with policymakers and industry players give Abatable unparalleled access to market knowledge to inform its wide-ranging insights.

Abatable's solutions are enabled by technology, and powered by people, making it a trusted guide for organisations looking to take action within the complex and evolving carbon markets.

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<sup>9</sup> <https://abatable.com/carbon-sourcing/>

<sup>10</sup> <https://abatable.com/market-intelligence/>

# Why has Startup Coalition picked this fight?

At Startup Coalition, we exist to advocate for Government action to promote startups and scaleups in the UK. Our first motivation for intervening in the VCM debate is, therefore, to maximise the potential for the £1.7bn UK VCM sector to continue to grow and add value to the UK economy.

As an organisation, we also believe that we have an obligation to support efforts to combat climate change, and that this is best served through cultivating an environment to create ClimateTech innovation in any sector, everywhere, all at once. The Tony Blair Institute's May 2024 "Reimagining Net Zero" report captured the essence of this mission perfectly: "our focus needs to shift from targets for domestic emissions to developing the technology that can help to deliver the transition globally".<sup>11</sup> It is, therefore, a moral, economic, and environmental imperative to accelerate ClimateTech.

## Why the UK?

The UK is the ideal place for ClimateTech focussed on carbon markets, given its strong regulatory environment; ambitious domestic climate agenda; leading financial centre; excellent culture of technical innovation and entrepreneurship, with a startup scene second only to Silicon Valley.

As the VCM is inherently a global phenomenon, there is only so much that we can do to impact it as the UK alone. Sure, carbon markets stakeholders can turn up to COP every year, and it is imperative that they refocus their approach to Article 6, but the biggest impact Startup Coalition can have in the short term is through the VCM startups that have helped produce this report.

## So what is the state of the VCM today?

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<sup>11</sup> <https://www.institute.global/insights/climate-and-energy/reimagining-the-uks-net-zero-strategy>

# The State of the VCM

## The Good

### **The VCM as a fundamental weapon in the battle against climate change**

**Firstly, the VCM is a critical enabler of climate action, with the purchase of carbon credits a powerful complement to in-house decarbonisation.**

Firms that engage with the VCM are 1.8 times more likely to be decarbonising year over year compared to their peer firms who are not engaging with the VCM, and they are 3 times more likely to be publishing scope 3 emissions data.<sup>12</sup> This is compared to the Forbes Global 2000 - a list of the world's largest firms - many of which are the world's heaviest polluters. Only 37% of them report their scope 3 emissions and 4% have net zero goals that are in accordance with UN Climate guidelines.<sup>13</sup>

**Secondly, most of the projects funded by the VCM are in the Global South, increasing the equitable distribution of green finance, enabling sustainable development and ensuring carbon finance flows to where it can maximise impact.**

The VCM can act as a vehicle for the transfer of capital from heavy emitting nations to the Global South, supporting their economic development in a way that means they can preserve carbon sinks and avoid the same pollution pathways as developed nations. From both a moral and rational point of view, we cannot expect nations who hold the majority of nature-based and total carbon projects to entirely fund the upkeep of carbon sinks, whilst high-income countries continue to have disproportionately high current and historical CO2 emissions. Most of these sinks are in developing countries who are in the midst of economic transformation that countries in the Global North went through before we knew about the impacts of GHG emissions. The carbon market is a vehicle to address this imbalance. Further, carbon credits can also include broader co-benefits beyond carbon abatement, including welfare enhancement, community empowerment, and increased governance integrity, often aligned with the UN's Sustainable Development Goals.

**Thirdly, in the absence of a carbon price, and the limited deployment of compliance markets, the VCM is the only tool that attempts to solve the externality of GHG emissions.**

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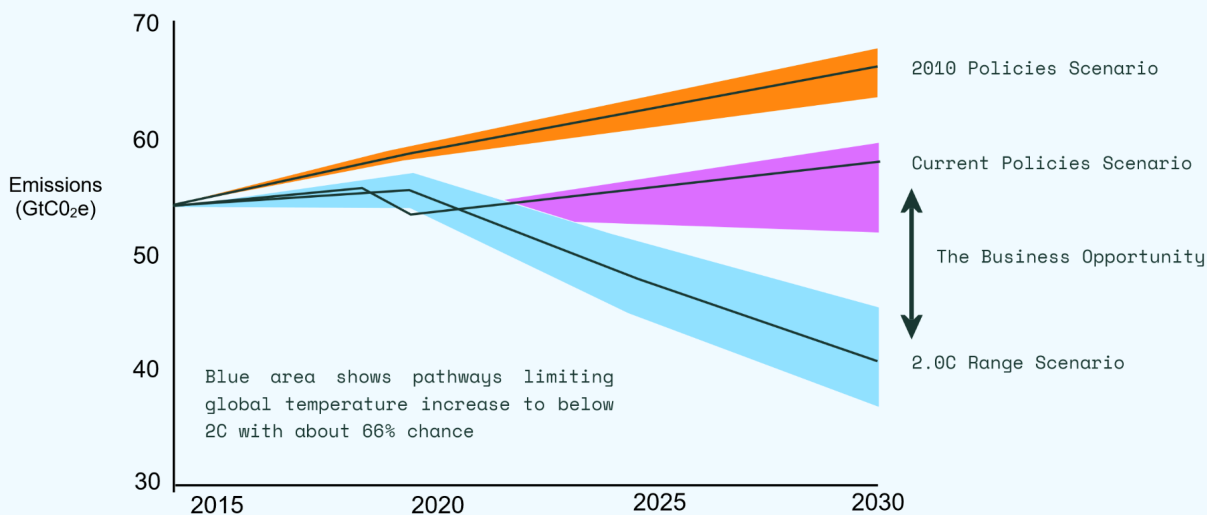
<sup>12</sup>

<https://www.ecosystemmarketplace.com/articles/new-research-carbon-credits-are-associated-with-businesses-decarbonizing-faster/>

<sup>13</sup> <https://zerotracker.net/analysis/new-analysis-half-of-worlds-largest-companies-are-committed-to-net-zero#>

Today, only 24% of global emissions are covered by jurisdictional carbon taxation measures including cap and trade schemes like the UK ETS.<sup>14</sup> Consequently, the vast majority sit outside of government mandated pricing. The VCM is therefore the only answer to attempt to price in the rest.

### The Emissions Gap



Source: UNEP Emissions Gap Report 2022: The Closing Window

## The Bad

### Discrediting credits.

In order to be viewed as an ally in the battle against climate change, the VCM must actually work, and in recent years, this has been rightfully challenged. The VCM has historically operated outside of regulation, although this is changing. In recent times there have been increasing concerns about the quality of credits, the claims being made by actors within the market, and the extent to which each credit actually represents 1tCO<sub>2</sub>e.

Criticism of credit quality is multifaceted. In the first place, critics have sought to probe whether projects funded by credits would have happened regardless. In other words, **the funded activity is not additional**. They do not require credit funding to happen, and yet they still receive credit funding which takes money away from projects that do actually need it. Additionality is particularly challenging for projects that rely on a counterfactual, which is by definition challenging to demonstrate with a high degree of certainty.

<sup>14</sup>

<https://www.worldbank.org/en/news/press-release/2024/05/21/global-carbon-pricing-revenues-top-a-record-100-billion>

Secondly, there has been some criticism about the **agency of peoples involved in projects**, and the extent to which the VCM is merely the latest manifestation of the Global North exerting undue influence over the Global South. There have also been instances of concern around human rights infringements.<sup>15</sup>

Thirdly, **transparency is challenging** for many projects funded through the VCM, not least because of the complexity of the supply chain and the underlying science - assessing the GHG emissions involved in an activity is always complex.

Fourthly, and perhaps most significantly if we return to the first principles of the VCM, there have been growing concerns that **carbon credits do not actually result in reduced GHG emissions**. This is the most important environmental risk, and could manifest as over-estimation of emissions abatement, leakage (whereby emissions increase elsewhere, eroding and in some cases fully negating the climate impact of an activity), double counting, or the abatement only being temporary, and not actually resulting in long-term GHG abatement.

**Over the last few years, these issues have gained prominence through increased press attention.**

## Press Scrutiny

In 2023, the Guardian released several reports outlining findings from their investigation into the quality of projects funded through carbon credits. In one report, they found that 39 of the top 50 projects (measured by projects that have sold the most carbon credits in the global market) were “likely junk”, whilst 16 others looked problematic, and the remaining three projects could not be determined definitively.<sup>16</sup>

According to the Guardian’s article on the top 50 funded projects, “a project was classified as likely junk if there was compelling evidence, claims, or high risk that it cannot guarantee additional, permanent greenhouse gas cuts among other criteria.” The main reasons for classifying a project as likely junk were that they were “not additional”, they “exaggerated claims”, and that they “inflated the baseline”. Among the projects surveyed, most were “promoted as emission avoidance” and 47 of the 50 were in Latin America, Africa or Asia. In many cases, particularly for those funding renewable energy projects, additionality was the main issue.

The consequences of this analysis are profound - if carbon credits do not materially result in the reduction of greenhouse gases in the atmosphere, then the market is a farce.

There is, however, a significant contingent of scientists and carbon markets stakeholders who have pushed back on a number of the criticisms made including against the controversial ‘West et al’ paper that was used as the basis for a significant amount of negative media attention against the VCM. It has been pointed out by some that a number of the methodologies used to reach conclusions in said paper were fundamentally flawed and did not cover the majority of VCM projects.<sup>17</sup>

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<sup>15</sup> <https://www.hrw.org/report/2024/02/28/carbon-offsettings-casualties/violations-chong-indigenous-peoples-rights>

<sup>16</sup> <https://www.theguardian.com/environment/2023/sep/19/do-carbon-credit-reduce-emissions-greenhouse-gases>

<sup>17</sup> <https://www.sylvera.com/blog/guardian-offsets-response> ,  
<https://everland.earth/news/the-science-behind-the-the-guardian-piece-is-fatally-flawed/> ,  
[https://www.space-intelligence.com/wp-content/uploads/2023/12/12\\_23\\_PressRelease\\_Space-Intelligence\\_Top-scientists-issue-rebuttal-to-West-et-al-paper\\_vF.pdf](https://www.space-intelligence.com/wp-content/uploads/2023/12/12_23_PressRelease_Space-Intelligence_Top-scientists-issue-rebuttal-to-West-et-al-paper_vF.pdf)

## The Ugly

As outlined at the start of this report, the VCM exists to solve the market externality of the failure to cost in carbon. A main motivation for individuals and firms to participate in the VCM is to then make claims about their purchased credits. If this motivation is undermined, the result will be a drop in demand for carbon credits, with no compensating increase in an alternative decarbonisation strategy for firms.

Predating the recent criticism of the VCM has been the constant, and correct, scrutiny of claims made by firms to ensure they are not “greenwashing”, where claims made by some but not all firms might be overstated, false or misleading. Greenwashing is not confined to the use of carbon credits, and can refer to a firm’s broader claims about its environmental footprint and practices, but carbon credits are often a key part, particularly where in-house GHG reductions are expensive or technically complicated. Undermining confidence in VCM carbon credits, therefore, will reduce the incentives for firms to purchase them as it will increase the risk of greenwashing accusations - leading to firms reducing their public ambition, and private action.

The consequence of increasing criticism of the VCM has been exactly this, leading to a phenomenon known as “green-hushing”, whereby one in four companies with emissions targets are choosing not to talk about them publicly.<sup>18</sup> More significantly for the VCM, fewer credits are being purchased.

**After successive years of growth, retirements fell year on year between 2022 and 2023 for the first time since 2016, whilst credit volumes traded has declined for two years in a row since 2021. Issuance has declined for two years in a row since 2021 (See below graph).**

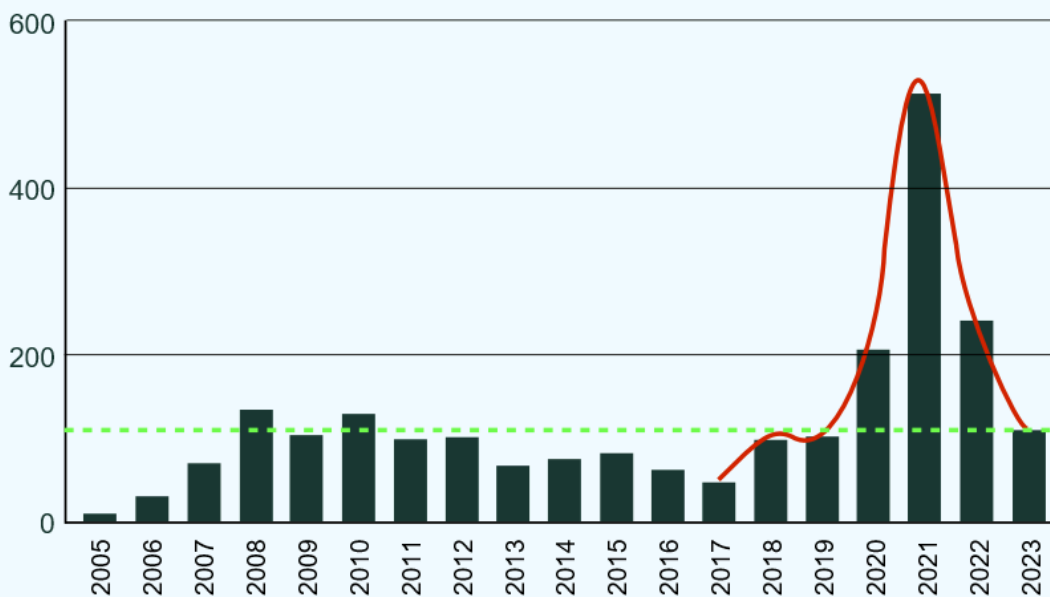
It is vital that carbon credits purchased through a VCM actually result in less GHGs in the atmosphere, and press scrutiny is an important force in maximising accountability and effectiveness, but negative reports have severely dented business and consumer confidence in the VCM. The reality is that there is a major risk associated with this decreasing engagement with the VCM - that progress towards net zero slows or stalls, resulting in a failure to remove, stop or even slow down the emission of GHGs. Scrutiny must simultaneously demand quality for the sake of the climate, *and the firms taking action.*

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<sup>18</sup> <https://www.southpole.com/news/going-green-then-going-dark>



**Recent Market Trends in the VCM**



2021 Peak | >50% Drop in 2022 | Ditto in 2023

Source: Ecosystem Marketplace - State and Trends of the Voluntary Carbon Market 2024

**Scrutiny that does not accept the critical role a high quality, high integrity VCM plays in climate action is not helpful in our battle against climate change, not least because the VCM is one of the only revenue streams for GHG removal, which is increasingly important.**

**Funding GHG Removal**

According to modelling by climate scientists, in order for the world to decarbonise rapidly enough so that we can reverse 2024’s breach of an average 1.5°C above pre-industrial revolution temperatures, a drawdown of emissions is required by 2050 with a massive increase in Greenhouse Gas Removals (GGR). GGR can occur through nature-based or engineered means. The former is much more widespread, with 99% of removals credits in 2023 being nature-based.

Nature-base removals are currently cheap and easy to scale, and often come with co-benefits such as increasing biodiversity. But nature-based removals are complex to monitor and are exposed to a plethora of risks, such as how long it takes for removal to occur (multi-decade at scale), although this is disputed. Nature-based removal is vulnerable to external interference, for instance through logging and wildfires, leading to a considerable “reversal risk”.

In contrast, engineered removal can have much greater certainty and longevity. Bioenergy with Carbon Capture and Storage (BECCS), DAC, and enhanced weathering can remove carbon from the

atmosphere for over 10,000 years.<sup>19</sup> From a permanence perspective, these technologies are critical, yet they are not economically competitive with nature-based removal today.

**There are pros and cons to both nature-based and engineered removal, but it is not zero-sum: we require a portfolio of GGR solutions to meaningfully combat climate change.**

Removal should also come alongside high-quality reduction credits - as it would be problematic to remove emissions from the atmosphere, while not also working to prevent emissions at source. Particularly in the short term while removals are nascent, in short supply and expensive, the lower costs of reductions enables action by more stakeholders to come sooner.

To achieve this portfolio of diverse options, we must fund them. To date, the main source of funding for GGR technologies is the VCM. Declining confidence in the VCM reduces the revenue for these projects, and therefore undermines our ability to remove GHGs from the atmosphere.

**We must not dismiss the VCM wholesale. Indeed, to do so would throw the baby out with the bathwater and would not support efforts to reduce GHG emissions. Instead, we must pursue quality and integrity in the VCM.**

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<sup>19</sup> <https://researchbriefings.files.parliament.uk/documents/POST-PN-0713/POST-PN-0713.pdf>

# The Pursuit of Quality and Integrity

Scrutiny from the media is critical in promoting accountability, transparency, and effectiveness, but so far this scrutiny has not been matched with a recognition by critics that the VCM is a conceptually good thing in our efforts to combat climate change. The debate has so far neglected to focus sufficiently on solutions.

There are two ways in which quality and integrity can be maximised in the VCM: through industry, or through Government intervention.

## Industry Efforts to date

### **Carbon Accounting Standards - *how to quantify the unquantified?***

As a first step to increasing integrity in the carbon market, two key initiatives have been set up to improve standardisation in accounting and accuracy of reporting. Two of the main initiatives for this are the Carbon Disclosure Project (CDP) and the Greenhouse Gas Protocol (GHGP).

Founded in 2000, the CDP runs a global environmental disclosure system that enables organisations including businesses to report, manage and track environmental impacts, including GHG emissions.<sup>20</sup> The CDP offers a scoring system for disclosures. In parallel, the Greenhouse Gas Protocol (GHGP) was initially formed in 1998 to coordinate industry GHG accounting standards.<sup>21</sup> It launched its first standard in 2001 and has been used ever since as the foundation for effective GHG accounting, on which action and insight can be based.

### **The Oxford Offsetting Principles - *when should businesses demand carbon credits?***

One of the most frequent criticisms levied at the VCM is that it acts as a means for firms to continue harmful emitting practices whilst simultaneously making green claims. This is one of the key forms of greenwashing accusations. To this end, in 2020 the University of Oxford published a set of principles for private actors, setting out a cadence and prioritisation of actions for corporate climate action. Updated in February 2024, these principles are:

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<sup>20</sup> <https://www.cdp.net/en>

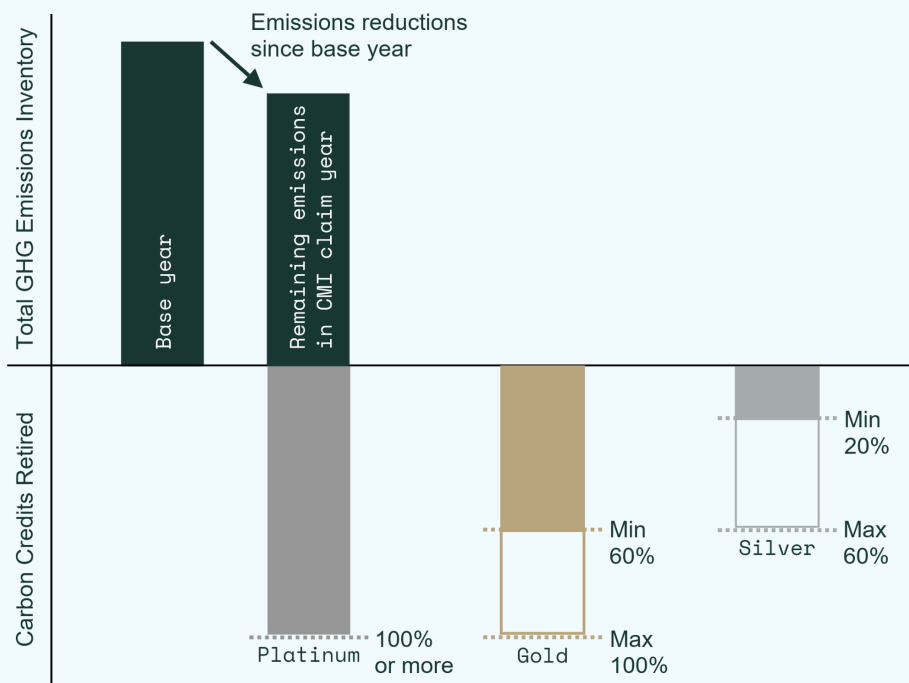
<sup>21</sup> <https://ghgprotocol.org/>

1. Cut emissions, ensure the environmental integrity of credits used to achieve net zero, and regularly revise your offsetting strategy as best practice evolves
2. Transition to carbon removal offsetting for any residual emissions by the global net zero target date
3. Shift to removals with durable storage (low risk of reversal) to compensate any residual emissions by the net zero target date
4. Support the development of innovative and integrated approaches to achieving net zero<sup>22</sup>

**The VCM - how can businesses make claims about carbon credits?**

Under the Oxford Offsetting Principles there is a legitimate time and place for private actors to demand carbon credits as part of a meaningful plan to reduce their carbon emissions. However, as we have constantly highlighted throughout this report, it would be foolish to suggest that VCM demand comes from philanthropy alone. Businesses want to make claims about their credits, but that is difficult given the lack of harmonised guidance and regulation.

To support this need, in 2021 the Voluntary Carbon Markets Integrity Initiative (VCMi) was launched by COP26 President Alok Sharma.<sup>23</sup> In 2023, it published its Claims Code of Practice to promote integrity in how firms make claims about the credits they purchase.<sup>24</sup> The CCP has three tiers, silver, gold and platinum, which reflect various levels of credits retired to cover a firm’s emissions footprint. The below chart outlines the different levels:



<sup>22</sup> <https://www.smithschool.ox.ac.uk/sites/default/files/2024-02/Oxford-Principles-for-Net-Zero-Aligned-Carbon-Offsetting-revised-2024.pdf>

<sup>23</sup> <https://vcmintegrity.org/>

<sup>24</sup> <https://vcmintegrity.org/vcmi-claims-code-of-practice/>

To make a VCMI claim, businesses must adhere to the VCMI's foundational criteria:

- Maintain and publicly disclose an annual greenhouse gas emissions inventory.
- Set and disclose a science-based target including near-term emissions reduction targets, and publicly committing to net zero emissions by no later than 2050.
- Demonstrate progress on financial allocation, governance and strategy that is aligned with meeting a near-term emissions reduction target.
- Public policy advocacy must support the goals of the Paris Agreement.

### **The ICVCM - *which credits should businesses demand?***

Where the VCMI focuses on demand-side integrity, the International Integrity Council for the Voluntary Carbon Market (ICVCM) was set up in 2021, to promote supply-side integrity off the back of the private-sector initiative, the Taskforce on Scaling Voluntary Carbon Markets.<sup>25</sup> In April 2023 the ICVCM created a set of ten Core Carbon Principles to determine if a carbon credit meets a baseline integrity threshold.<sup>26</sup> Split under three distinct headings, these principles are:

#### **Governance**

1. Effective governance at the credit programme-level
2. Tracking of credits through a registry system
3. Transparency
4. Third-party validation and verification

#### **Emissions impact**

5. Additionality
6. Permanence
7. Robust quantification
8. No double counting

#### **Sustainable development**

9. Social and environmental safeguards
10. Avoid locking-in technologies or practices that are incompatible with reaching net zero GHG emissions by mid-century

Combined, the VCMI and ICVCM offer a path to end-to-end, supply and demand integrity within the VCM. Indeed, in 2023, both entities publicly announced a partnership.<sup>27</sup>

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<sup>25</sup> <https://icvcm.org/>

<sup>26</sup> <https://icvcm.org/core-carbon-principles/>

<sup>27</sup> <https://carboncredits.com/vcmi-icvcm-market-integrity-framework/>

## The SBTi - how can private actors maximise ambition?

A final industry initiative that has progressed is the Science Based Targets initiative (SBTi), founded in 2015 to support private companies to outline targets for environmental action to mitigate the worst impacts of climate change.<sup>28</sup> SBTi's Net Zero Standard has a mitigation hierarchy at its core framed around prioritising short term reductions:

1. Near-term targets - roughly halving emissions by 2030
2. Long-term targets - cutting all emissions (more than 90%) by a chosen net zero date, no later than 2050
3. Neutralisation of 2050 residual emissions - through permanent carbon removal and storage
4. Beyond value chain mitigation (BVCM) - taking action beyond a corporation's direct impact<sup>29</sup>

When combined with the other elements of industry integrity, SBTi could complete the toolkit for optimising corporate climate action, though its position on the use of carbon credits has been highly controversial.

The initiatives mostly predate the recent negative criticism that the industry has received, and it is believed by some that the transparency and due diligence work done by these initiatives has revealed the more problematic aspects of the sector that appeal to journalists. Whilst the initiatives are then adapting to critique, this scrutiny has also helped identify limitations of the "self-regulation". Indeed, the recent controversy around the SBTi opening the door for the increased role of the VCM in scope 3 emissions abatement exposed both the lack of consensus within industry, as well as the need for additional clarity beyond industry to avoid the worst possible outcome: reduced action to combat climate change.<sup>30</sup> There is a very real risk of making a perfect VCM the enemy of good actions to combat climate change, leaving the externality of GHG emissions unabated.

**These industry integrity efforts are necessary, but they are demonstrably insufficient.**

## Government Efforts to date

To complement the vital role of industry integrity efforts and press scrutiny, Governments across the world have a role to play in increasing rigour and industry engagement across every element of the voluntary carbon credit supply chain. In carbon accounting, Governments have a critical role in expanding quantification of emissions as a cost of doing business; in supply of carbon credits, the Government has a critical role in ensuring a diversity of projects can start, scale and compete; and in increasing integrity, Governments have a critical role to play in making sure the VCM means something - and this must be done in partnership with industry.

**So far, we have seen the seeds of action in the UK and beyond:**

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<sup>28</sup> <https://sciencebasedtargets.org/>

<sup>29</sup> <https://sciencebasedtargets.org/resources/files/Above-and-Beyond-Report-on-BVCM.pdf>

<sup>30</sup> <https://sciencebasedtargets.org/news/statement-from-the-sbti-board-of-trustees-on-use-of-environmental-attribute-certificates-including-but-not-limited-to-voluntary-carbon-markets-for-abatement-purposes-limited-to-scope-3>

The UK

Elsewhere







# Industry demands more from Government

The raw ingredients for helpful Government action are there, and we can learn a lot from jurisdictions elsewhere, but we have seen action stagnate in recent months. To that end, in 2023, Startup Coalition took up arms.

## CMIF

The Carbon Markets Innovation Forum (CMIF) was founded in October 2023 to convene startups in the carbon markets and ensure they have a seat at the policy table.<sup>31</sup> This includes actors in the compliance and Voluntary Carbon Markets, and is aimed at startups involved across the carbon market supply chain, carbon accounting - supporting the quantification of greenhouse gas (GHG) emissions; carbon markets intermediaries - supporting the integrity of the market through software, infrastructure and ratings; and carbon credit providers and project developers - the folks doing the actual removal and emissions reductions across the supply chain of carbon credits, and providing carbon credits to the market.

CMIF operates an open-doors policy to celebrate, educate and empower startups in the carbon markets, with a specific focus of ensuring they have the chance to feed into the UK Government's policymaking process. Once a quarter we invite startups to join our CMIF summit, under the strategic direction of our Steering Committee and secretariat. We also aim to equip UK policymakers, regulators and officials with information about and access to the innovative startups active in the carbon markets. CMIF is supported by a Steering Committee of 14 of the world's leading Carbon Markets startups.<sup>32</sup>

The startups engaged in CMIF exist to support the growth of a high integrity VCM in the UK, and with our track record for growing high-tech industries, grounded in our world-leading universities and pro-innovation investment incentives, there is no reason why we could not be the home of the innovative carbon markets sector going forward. Indeed, this is twinned with the opportunity presented by being home to a global financial hub in the City of London. For that reason, CMIF is working intimately with The City of London Corporation's UK Carbon Market Forum to unite our advocacy for greater political attention on the VCM.<sup>33</sup>

CMIF has been a vehicle for greater engagement by policymakers with the innovative carbon market, but it has also enabled Startup Coalition to identify the critical pinch points in progressing the sector forward. Taking all of these above efforts into account, Startup Coalition believes that a consolidated strategy is needed to move the VCM away from stagnation and disrepute, to its true purpose as a vital component of climate action.

**This is our blueprint for a high quality, high integrity carbon market - powered by good government policy.**

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<sup>31</sup> <https://www.cmif.co.uk/>, <https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/28/fact-sheet-biden-harris-administration-announces-new-principles-for-high-integrity-voluntary-carbon-markets/>

<sup>32</sup> The CMIF Steerco consists of Abatable, BeZero, Cloverly, CUR8, Ecologi, Isometric, Kita, Patch, Puro Earth, Supercritical, Sustained, Sylvera, Treeconomy, and Undo

<sup>33</sup> <https://www.cityoflondon.gov.uk/supporting-businesses/economic-research/uk-voluntary-carbon-markets-forum>

# A Blueprint for a World Leading VCM

## The Blueprint

### Track One: take the VCM seriously

In every conversation that we've had with startups and other stakeholders engaged in the VCM over the last year, the same priority is confirmed each and every time: the UK Government must pull its finger out and consult on its role in supporting the VCM.

This consultation has been long trailed, most recently in its "Nature Markets Framework progress update" published in March 2024, Defra outlined that the "government plans to consult on interventions to help grow high integrity voluntary carbon and nature markets in the coming months."<sup>34</sup> This was published prior to the UK General Election on 4th July 2024 which saw a change of Government.

At COP29 in November 2024, Climate Change Minister Kerry McCarthy announced the UK Government's six "Principles for voluntary carbon and nature market integrity" and also confirmed that the Department for Energy Security and Net Zero would consult on steps to support a high quality, high integrity Voluntary Carbon Market in early 2025. This is welcome, but means further delay to progressing action.

In the first half of 2024, we coordinated a draft "response" to a hypothetical consultation on the role of the UK Government in supporting the VCM through CMIF. This "consultation" included accepting evidence from the CMIF Steering Committee and Carbon Markets startups through both a virtual roundtable and written evidence. The response captured that there were four key asks from the sector, which any forthcoming consultation should seek to discuss, in addition to expediting the consultation itself:

- **Claims:** UK firms must be able to make good faith claims about the use of carbon credits in the confidence that they will not face unfair claims of greenwashing.
- **Removals Business Model:** Greenhouse gas removal technologies based in the UK must have a reliable business model, and it is aspirational for some removal credits to be funded through the UK Emissions Trading Scheme.
- **Integrity in the VCM:** The UK Government must not start from scratch in restoring trust to the voluntary carbon market, and should leverage best practice across the carbon markets industry, including international standards.

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<https://www.gov.uk/government/publications/nature-markets-framework-progress-update-march-2024/nature-markets-framework-progress-update-march-2024#growing-nature-markets-key-areas-of-progress>

- **The International Angle:** The voluntary carbon market is international by definition, and any actions by the UK government must accommodate this reality. Harmonisation of carbon market practices with other jurisdictions to simplify the market landscape for stakeholders, allowing firms to use international voluntary credits as part of claims and Government engagement in Article 6.

We were pleased that in the November 2024 announcements from the Government on the high level principles, the accompanying planned sections for the VCM consultation aligned with the approach we took for our own exercise. The Government confirmed that as part of the forthcoming consultation in early 2025, the following would be consulted on:

- Expectations for the standards that need to be met to ensure high integrity markets
- The role of guidance, policy and regulation
- The market architecture, governance models and infrastructure
- The interaction between VCM credits and scope 3 emissions
- Further detail on the six overarching principles

**This consultation must come as soon as possible.**

## Government Endorsement

Government endorsement is a crucial part of supporting confidence in the VCM. In May 2024, Treasury Secretary Yellen led the United States government's endorsement of a high quality VCM.<sup>35</sup> This form of endorsement by such high ranking cabinet members in President Biden's Administration was the strongest possible message the world's largest economy could send. The Principles announced by Climate Change Minister Kerry McCarthy at COP29 in Azerbaijan in November 2024 provide an equivalent endorsement by the UK Government. Specifically, it was announced that "the UK government sees a clear and appropriate role for the responsible use of high-integrity carbon and nature credits by companies or other organisations that wish to do so as part of their climate and nature strategies."

## Track Two: increase integrity in demand for credits

Track Two discusses how firms who purchase carbon credits should be able to advertise those claims in a 'claims sandbox' - a relaxed regulatory environment. This part also discusses how the VCM can stimulate demand and help small businesses to quantify and report their carbon emissions data.

### Claiming with Confidence - A Claims Sandbox

One of the main reasons that firms purchase carbon credits is to enable them to make claims about their products or business for marketing purposes. As discussed above, increasing scrutiny on claims and accusations of greenwashing have hurt demand for the VCM. This has led to the "green-hushing" phenomenon and ultimately reduces the demand for carbon credits of all qualities, including those that are meaningfully contributing to climate action.

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<https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/28/fact-sheet-biden-harris-administration-announces-new-principles-for-high-integrity-voluntary-carbon-markets/>

It is time to confront this challenge head on, and we call for a concerted strategy, with political sponsorship, to enable firms that are acting in good faith to be able to claim with confidence. This must mean a coordinated approach between the Advertising Standards Authority (ASA) and the VCMI to define key terms such as “net zero” and “carbon neutral” in a way that is outcomes focused, and principles based to enable creativity, competition, and innovation. To support this effort, we also believe that the ASA should set up a “claims sandbox” to encourage firms to engage them early in a marketing campaign, setting out what they intend to say, and provide context up front. A sandbox is a concept used in financial services and energy to support the testing of innovative processes, services and business models in the real world under the scrutiny of a regulator and time limited exemptions with real consumers. Lessons are then learnt from their experience to develop the rules going forward. This approach would mitigate the risk of penalties downstream and facilitate a constructive relationship between the regulator and industry.

The UK Government should create guidance from the claims sandbox that will help businesses understand what claims can and cannot be made. This would incentivise the advertising of their use of the VCM due to the decreased risk of litigation, fines or bans thus stimulating demand. This environment would also encourage firms to explore novel carbon credits, including advanced funding off-take of novel carbon removal credits.

Such a principles-based approach would set the UK at a competitive advantage to the EU, which has pursued a much more prescriptive and prohibitive approach that risks discouraging firms to engage in decarbonisation, let alone in the VCM.

### **Small Business demand for the Carbon Market - Help to Green**

Another step that the UK Government can take to promote robust demand for the VCM is by supporting small businesses to quantify their carbon emissions. Decarbonisation matters to small business owners: data shows that nearly two thirds of small businesses have taken steps towards net zero, from switching to renewable energy to introducing low carbon products and services.<sup>36</sup> Of these small businesses, however, only 15% had undertaken an environmental audit. Such an audit would be the first step towards entering the VCM with integrity, since step one in the VCMI’s CCP is to maintain an up to date emissions account.

Despite wanting to take action, many small businesses are confronted with the same barriers - a lack of time, money, and knowledge of where to go. According to a report from the Zero Carbon Business Partnership, 71% of small businesses could not recommend a single web source for help on decarbonization.<sup>37</sup> Research elsewhere has suggested that the Covid-19 pandemic made the situation worse, further limiting the capacity of small businesses to prioritise environmental action.<sup>38</sup>

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<sup>36</sup>

<https://www.enterpriseresearch.ac.uk/wp-content/uploads/2024/02/The-State-of-Small-Business-Britain-2023-V2.pdf>

<sup>37</sup>

<https://volans.com/wp-content/uploads/2021/07/1583-SME-Decarbonation-Report-v5.pdf>

<sup>38</sup>

<https://www.enterpriseresearch.ac.uk/wp-content/uploads/2024/02/The-State-of-Small-Business-Britain-2023-V2.pdf>

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Since 2022, we have advocated that the UK Government address this challenge by subsidising access to the foundational tools that small businesses require to begin their journey to net zero.<sup>39</sup> For example, through the procurement of Environmental Management Software (EMS) that enables governance of a sustainability programme, or through software to support reducing the emissions across a supply chain.

Against the backdrop of the VCM, this presents an even greater opportunity, as the government can indirectly increase the customer base exponentially by equipping small businesses with these tools.

Furthermore, whilst small businesses remain out of scope of most disclosure regimes (such as TCFD), it is increasingly the case that in scope firms demand data from their suppliers to enable their own compliance. Many small businesses may therefore quickly find themselves facing disclosure requirements indirectly. A Help to Green Scheme would support them to act to maintain business.

**Small businesses need government support to begin their decarbonisation journey, and a Help to Green scheme would enable the virtuous cycle of UK ClimateTechs helping UK small businesses take their first green steps.**

## Smart Data - Making Carbon Accounting Make Sense

If small businesses do begin to more actively quantify their carbon emissions, they will need the right data. Often, this data is locked up behind service providers, or is fragmented across different homes, requiring time and effort to join together. Fortunately the Labour Government has committed to introducing the foundational powers to enable the breaking down of barriers to “porting” data, at the subject's consent, between parties. To date, the only example of this in practice is open banking.

Open banking was introduced in 2018 after a competition intervention by the CMA. It has fuelled innovation in the UK Fintech Sector: over ten million consumers and 50% of SMEs have now used open banking services to gain a holistic view of their finances, support applications for credit, and pay securely, quickly and cheaply.<sup>40</sup> The UK startup sector that powers the solutions built on open banking is valued at £4bn today.<sup>41</sup> Open banking is, however, only the tip of the iceberg in what can be made possible when consumers and businesses are able to consent to securely share their data between firms.

Smart Data is the application of real-time consent driven data portability across the economy. In a Smart Data world newcomers to sectors no longer need to compete just on the core products and services of incumbents but can compete on the customer interface, bringing together disparate sets of data, making sense of trends and giving insights that the incumbents have missed. This is the power of Smart Data - putting consumers and small businesses in control of their data and opening up a new frontier of innovation and competition for UK startups.

Through the Data Use and Access Bill tabled in October 2024, the Government introduced new powers to give Secretaries of State the ability to mandate sector specific smart data schemes. The primary legislation is sector agnostic and principles based, with no firms compelled to do anything in the short

<sup>39</sup> <https://startupcoalition.io/u/2023/11/ClimateTech-Report-November-2023-FOR-RELEASE.pdf>

<sup>40</sup> <https://www.openbanking.org.uk/news/open-banking-marks-major-milestone-of-10-million-users/>

<sup>41</sup> <https://startupcoalition.io/news/the-4bn-open-banking-ecosystem/>

term, leaving the implementation with the Government to deploy in priority sectors. This presents significant opportunities for the VCM sector, as it will supercharge the ability of consumers and small businesses to access accurate data to quantify their emissions, and therefore make claims about their use of credits with confidence.

On day one of the Dat Bill's passage, however, nothing changes. To achieve the potential, we will need the Government to prioritise "schemes" mandating the opening up of datasets to support the VCM. To achieve this we advocate that DESNZ coordinates a taskforce to determine the priority datasets. We envisage these could include:

- An Open Energy scheme, whereby Smart Meter data is opened up with user consent through standardised APIs. Ofgem, the energy regulator, in August 2024 initiated this by publishing a consultation on consumer consent around energy use data being shared with third parties. This is a positive step towards open energy and aligns with holistic governance and structures being built as part of the legislation.<sup>42</sup>
- An Open Finance scheme, increasing the types of accounts accessible under standardised APIs, including the opening up of more corporate products currently out of scope.
- Schemes to increase the integrity of the carbon market - these could include Smart Data schemes to support supply chain transparency.

## Track Three: increase integrity in supply of credits

Track Three delves into the Government's recent pivot towards GGR ETS integration, something that will help to prove the business model and catalyse investment for GGRs. This final track also calls for the creation of an Office for Carbon Removal and a National Carbon Markets Database, both of which will help the central government to oversee and track credit transactions.

### GGR ETS Integration

There is a growing consensus in the sector that it is aspirational for high quality, high integrity carbon removal credits to be offered through the ETS and that the UK ETS and VCM should be formally linked in some way. Fortunately, this consensus seems to be the prevailing mood in the government too. We were pleased to respond to the consultation on "Integrating greenhouse gas removals in the UK Emissions Trading Scheme" on behalf of CMIF in August 2024.<sup>43</sup> In our response we outlined that the ETS should include a new type of UK-based "Technology-specific GGR Allowance", which itself would vary when attached to a distinct method of removal.

Critically, at Startup Coalition we view the integration of GGR credits into the ETS as positive, but that multiple government-backed financing schemes are required to support the GGR sector, particularly because of the diversity of technology readiness levels within the sector. It is therefore aspirational to have the contracts for difference (CfD) route and the ETS route operating alongside other ad hoc

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<sup>42</sup> [Consumer Consent Solution Consultation - Ofgem](https://www.ofgem.gov.uk/sites/default/files/consumer-consent-solution-consultation)<https://www.ofgem.gov.uk/sites/default/files/consumer-consent-solution-consultation>

<sup>43</sup> <https://www.gov.uk/government/consultations/integrating-greenhouse-gas-removals-in-the-uk-emissions-trading-scheme>



financing schemes such as UKRI grant funding, to ensure that a diverse portfolio of technologies can continue to proliferate in the UK.

For both the ETS funded model preferred by participating startups, and the model for CfD currently being pursued today, transitioning to a world in which removal credits are funded by the government will require the government to define the required qualification criteria and monitoring, verification and reporting (MRV) standards. Under its planned approach through the parallel work, the UK government intends to “define the methodologies that GGR projects supported under the business model will need to meet rather than endorse one, or multiple, third party [MRV] methodologies”.<sup>44</sup> This was confirmed but elaborated further in the Summer 2024 consultation with the UK government expecting:

*“to define methodology quality thresholds for early projects, allowing projects to come forward with proposed methodologies. These would specify what projects must cover as part of their calculations and would reference best practices such as the Core Carbon Principles from the Integrity Council for the Voluntary Carbon Market and existing government standards where appropriate... This approach will support the development of a full Standard whilst allowing for the development and innovation associated with first of a kind deployment. The Authority envisages that this GGR Standard will form the basis of UK ETS MRV for engineered GGRs and will work in conjunction with the development of the business models to ensure that methodologies are suitable for UK ETS integration.”<sup>45</sup>*

Whilst not averse to this iterative approach, indeed we applaud the government for not making perfect the enemy of the good, it remains unclear as to when this standard will be produced, when, and how accessible it will be to feedback from the sector. It is vital that any standards for MRV leverage best practice from industry.

**Greater clarity is required on how standards will be produced to enable GGR carbon credits to be made available through the UK ETS.**

## Office for Carbon Removal

Under current plans, the integration of GGR credits into the ETS will, rightly, be undertaken under the auspices of the UK Emissions Trading Scheme (UK ETS) Authority (“the UK ETS Authority”). At Startup Coalition, however, we believe that there is a missing regulator function and we therefore endorse the creation of an Office for Carbon Removal, as outlined by the Green Alliance in their June 2023 report.<sup>46</sup>

This office would work in partnership with the UK ETS Authority, but specifically oversee the removal activities undertaken in the UK funded through both it and other routes (government funded or otherwise). This new regulator would also oversee the development of standards, in partnership with industry, and coordinate with The North Sea Transition Authority to accelerate the storage of carbon under the North Sea.

**As part of the VCM consultation, we would like to see questions asked about the need for a new dedicated regulator for GGR.**

<sup>44</sup> <https://www.gov.uk/government/publications/greenhouse-gas-removals-ggr-business-model>

<sup>45</sup>

<https://assets.publishing.service.gov.uk/media/664df92b993111924d9d39f8/integrating-ggrs-in-the-ukets-consultation.pdf>

<sup>46</sup> <https://green-alliance.org.uk/publication/the-case-for-a-uk-office-for-carbon-removal/>

## A National Carbon Markets Database

In our “consultation” with the Carbon Markets sector in the first half of 2024, one key finding was the desire for the government playing a role in increasing transparency in the VCM. To this end, we advocate that the UK ETS Authority and the new Office for Carbon Removal partner with the National Atmospheric Emissions Inventory (NAEI) to build a version of the “National Inventory” that includes VCM transactions by actors based in the UK, as well as a register of all eligible credits created in the UK. This would require a review of financial disclosure obligations to enable the reporting of necessary data points to feed into the inventory.

Whilst the goal of the Inventory would be to increase market transparency in the short term, a comprehensive and up to date Inventory could also provide a pathway to more active participation in the nascent Article 6 market, which the UNFCCC is currently developing.

As of yet the UK has not formally engaged in the UNFCCC’s Article 6 mechanisms but we encourage the government to consider greater involvement here as a way to enhance its environmental targets, build a reputation for global carbon market leadership and support development and climate finance to global south.

The importance of comprehensive disclosures cannot be understated. Projects and claims need these better disclosures to create transparency and start a race to the top. Buyers of all kinds should officially be encouraged to seek independent third party quality assurance (such as ratings), and for larger companies or companies buying at least a certain volume (e.g. 500kt/yr) to fall into that scope.



# Recommendations:

## Track One: take the VCM seriously

1. **Consultation:** The Government needs to publish a Voluntary Carbon Market consultation as soon as possible. **This is our most important recommendation.**

## Track Two: increase integrity in demand for credits

2. **Claims Sandbox:** The Government should create a “claims sandbox” to enable firms to collaborate with regulators in making high-integrity claims about their use of novel carbon credits.
3. **Help to Green:** The growth of the VCM could also accelerate small businesses to quantify and tackle their own emissions. Access to tools so that these businesses can decarbonise should be subsidised by the central government.
4. **Smart Data:** Through the proposed Smart Data Bill, firms could use data to help quantify their emissions.

## Track Three: increase integrity in supply of credits

5. **GGR ETS Integration:** In light of the Government's recent consultation on this issue we believe that the Government is taking this seriously and also shares our view that GGR integration is good for stimulating demand and investment in GGR's.
6. **Office of Carbon Removal:** The Government should create a body working in partnership with the UK ETS Authority which would oversee UK based removal activities. The body would also oversee the development of standards and accelerate carbon storage in the North Sea in coordination with the NSTA.
7. **Carbon Markets Database:** A national database needs to be established to track all VCM transactions, credit issuances and retirements.

STARTUP  
C\*ALITION

