

A New Era for ClimateTech

The ClimateTech Policy Coalition's
2024 Report

December 2024

About the ClimateTech Policy Coalition

The ClimateTech Policy Coalition consists of the Startup Coalition, Undaunted, techUK, Tech Nation, Cleantech for UK, and Tech Zero. Together they represent entrepreneurs, inventors and innovators on the forefront of climate technology, or climate-tech.

Its mission is to help unlock the economy of the future: a low to no carbon future of green growth fuelled by British innovators and entrepreneurs.

Since 2022, the ClimateTech Policy Coalition has published annual reports outlining short-term opportunities for the Government to scale technologies that can combat climate change. This report is the first under the new Labour Government, which came to power in the 2024 General Election.

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.

About Undaunted

Undaunted – a partnership between Imperial College London and the Royal Institution – is nurturing a climate innovation ecosystem in London, supporting successful creation and scale up of businesses that tackle climate change. Over 165 exciting startups have graduated from its accelerator programme, The Greenhouse, going on to raise more than \$1 billion in investment since 2012 and creating over 1,500 jobs in 30 countries. Across all industries, the survival rate of new startups is 10 per cent; for startups graduating from Undaunted, the survival rate is over 88 per cent. Other core activities include the world's first Master's in Cleantech Innovation, the upcoming Better Futures Retrofit Accelerator and a year-round programme of community building, education, policy and public engagement.

About techUK

techUK is the UK's leading technology membership organisation, with more than 850 members spread across the UK. They are a network that enables its members to learn from each other and grow in a way which contributes to the country both socially and economically. By working collaboratively with government and others, they provide expert guidance and insight for their members and stakeholders about how to prepare for the future, anticipate change and realise the positive potential of technology in a fast-moving world. techUK launched in 2013 to champion the technology sector and prepare and empower the UK for what comes next, delivering a better future for people, society, the economy and the planet.

About Tech Nation

Tech Nation is the leading growth platform for tech insights, connections, collaboration and talent, empowering ambitious founders and their teams with the access and knowledge they need from seed stage to success story.

Powered by the Founders Forum Group, Tech Nation's approach unites the tech ecosystem whilst placing founders from all corners of the UK and beyond at the forefront, amplifying their needs and challenges and empowering them to grow their businesses so they can positively transform our world.

About Cleantech For UK

Launched in February 2023, Cleantech for UK is an initiative which was set up to provide a collective policy voice for a group of climate focused, UK based investors. Cleantech for UK advocates for policy reforms to support and increase the flow of private investment into cleantech, to develop climate technology in all forms. The coalition comprises a group of company builders and investors spanning the innovation lifecycle from company formation to IPO and beyond, united in trying to bring forward the next generation of UK clean industry. Further detail on the coalition can be found [here](#).

The initiative is supported by Bill Gates' Breakthrough Energy and organised by Cleantech Group.

About Tech Zero

Tech Zero is the climate action group of over 350 tech companies committed to reaching net zero. Its aim is to decarbonise the tech industry as soon as possible by educating tech companies across all sustainability topics; offering wide-ranging support to measure, reduce, and remove their emissions; and bring together a committed community.

Tech Zero is supported by Octopus Energy and Tech Nation, and is an official partner to the UN's Race to Zero campaign.

Executive Summary

The ClimateTech Policy Coalition brings together startup founders and investors at the forefront of ClimateTech innovation to identify opportunities for the Government to advance climate mitigation and adaptation through technology.

This report, the third intervention from the Coalition, aims to provide the Government with a refreshed blueprint for action, reflecting the insights and experiences of ClimateTech founders in late 2024. This year's change in Government presents both significant opportunities and challenges for ClimateTech entrepreneurs. To capture perspectives from the sector, we held four roundtables and conducted a survey of founders.

The findings reveal mixed sentiments on how the actions of the UK Government have supported the growth of ClimateTechs in 2024. Whilst we uncovered initial optimism at the opportunity that a change of governing party presented after Labour won the July 2024 General Election, ClimateTech founders were underwhelmed at progress made in the first five months of the new administration. Feedback centred on the need for greater policy clarity and ambition, as well as concerns around the October 2024 Budget. While many founders acknowledged the fiscal pressures the Government faces, some expressed worry that measures might disproportionately impact small businesses.

These concerns were shared by investors that we spoke with. Whilst there is a lag in the data, early signals suggest that investment in the UK's ClimateTech sector is down year on year, and the Government should never underestimate the burning runway facing most ClimateTech entrepreneurs. When we asked investors to reflect on the last year in policy, they expressed some frustration around the communication of strategy and policy from the new Government. They noted that a lack of clarity has made it harder to engage with the substance of the policies themselves. This uncertainty is a barrier to deploying capital, and to them attracted investment in their funds.

Despite these challenges, the ClimateTech Policy Coalition's purpose is to provide constructive solutions that address founder concerns and enable ClimateTech innovation to thrive. This report offers a blueprint with three key recommendations:

The government must seize the opportunity presented by its industrial strategy to position climate technology as a cornerstone of the UK's future economic growth and decarbonisation efforts. By prioritising innovation and fostering an environment that supports transformative technologies, the UK can strengthen its global competitiveness, create high-quality jobs, and drive sustainable economic prosperity. Through strategic investment, regulatory reform, and effective public-private partnerships, the UK can secure its leadership in the ClimateTech sector and ensure long-term success in the global green economy.

To address founder and investor concerns about aligning policy with the needs of the ClimateTech sector, the Government should clearly articulate the role of innovation and technology within its policy priorities. This includes providing a roadmap for how GB Energy will foster innovation in the energy sector, leveraging technology to accelerate decarbonisation in the built environment, and unlocking datasets to enable breakthroughs in ClimateTech innovation.

Finally, the ClimateTech Policy Coalition presents a set of recommendations for the Labour Government to act on tangible policy opportunities that will accelerate ClimateTech growth and enhance climate impact. **These proposals represent low-hanging fruit—practical, high-impact actions that the Government should prioritise to deliver immediate progress for the sector.**

These targeted reforms can unlock innovation, bolster the UK's ClimateTech leadership, and drive progress toward a sustainable future.

Our 2022 report was written at **417ppm**.

Our 2023 report was written at **419ppm**.

Our 2024 report was written at **421ppm**.

Introduction

As 2024 draws to a close, the United Kingdom stands at a pivotal moment in its economic and industrial history. Technology harnessed to mitigate greenhouse gas emissions (GHG), known as cleantech or ClimateTech, was once seen as a peripheral concern but has now firmly established itself as a multi-trillion-pound global opportunity, reshaping industries, creating jobs, and driving significant economic value. The global race for sustainable innovation has evolved from an environmental necessity to a central pillar of economic strategy, with nations competing to capture the vast potential of the ClimateTech revolution.

The International Energy Agency has estimated that the clean energy transition represents a €605 billion annual opportunity by 2030, with ClimateTech forming the foundation of a new global industrial era. Startup Coalition's 2024 ClimateTech Index valued the UK's top 1,000 ClimateTechs at £26bn.

For the UK—a nation with a rich industrial heritage and world-leading research capabilities—2024 was another year of extraordinary invention and innovation. British universities and startup ecosystems have fostered innovators developing breakthrough technologies that can address climate challenges while positioning the UK at the forefront of the next wave of industrial leadership.

However, the challenges of 2024 were as significant as its opportunities. The UK's ClimateTech sector faced persistent obstacles: fragmented funding streams, policy uncertainty, and a fiercely competitive global environment. Germany, France and the Gulf states have bullishly moved to lure ClimateTech innovators to their shores, while the US continues to entice entrepreneurs of all kinds to up-sticks across the pond. Earlier stage British startups—especially those in hardtech and deep tech—are increasingly left frustrated or bamboozled at a complex funding landscape ill-suited to capital-intensive, drawn out projects.

On the global stage, Donald Trump's return to the US presidency has introduced new uncertainties into the international climate landscape. While the specifics of his administration's policies remain unclear, early indications suggest a potential shift in the United States' approach to emissions reduction and international climate agreements. This evolving dynamic underscores the need for the UK to take a leadership role in advancing ClimateTech—not only as a strategy to meet climate targets but also to drive broader environmental improvements. These include enhancing air and water quality, restoring biodiversity, and creating resilient, sustainable systems that benefit both the economy and society.

Back home, the Labour Party's victory in the July 2024 general election ushered in a new government tasked with transforming this landscape. The Labour Government inherited not just a climate challenge but also a generational economic opportunity. The success of the UK's ClimateTech sector is being measured not only in terms of carbon reductions but also through economic gains: job creation, export growth, and the development of technologies capable of scaling on a global level.

Against this backdrop, this year's ClimateTech Policy Coalition report seeks to reflect on a year of change, and then adapt our approach to the new reality. First off, we present a state of the sector, through the eyes of UK ClimateTech founders, and responses to our open call for views on how it feels to

be a ClimateTech entrepreneur in the UK at the end of 2024. Secondly, we return to our mission - presenting a tangible blueprint for how policymakers of all stripes can support these founders.

In our previous reports, we have outlined a series of recommendations to strengthen the UK's clean technology ecosystem and tracked progress against these objectives. This year, in light of the Labour Government's arrival and the shifting national and global context, we reframe our recommendations to better fit the government's evolving strategy. These proposals reflect the urgent need for a bolder and more coordinated approach to policy, investment, and innovation, ensuring that the UK can fully harness the opportunities presented by the green technology revolution.

This report reflects on the Labour Government's first six months in power, examining its approach to ClimateTech. It explores how policy, investment, and innovation intersected in 2024 to lay the groundwork for what could become one of the most significant economic transformations of the 21st century. Through insights from founders, investors, and policymakers, we chart the progress made and the path that remains to be travelled as the UK seeks to convert its clean technology promise into global leadership.

The stakes have never been higher—but neither has the opportunity been so profound.

A Year in ClimateTech Policy

<p>£190m funding was announced for the Industrial Energy Transformation Fund.</p> <p>The Govt launched the Scale-Up Forum.</p> <p>The Govt launched a 'Civil Nuclear Roadmap', a CCUS Vision, and plans for 'vehicle-to-everything' charging technology</p> <p>Govt funding for farmers to practice more sustainable farming methods was announced.</p>		<p>At the Farm to Fork Summit, the Govt announced new measures to cut red tape for some AgTech.</p> <p>DESNZ consulted on the expansion of the ETS to include Greenhouse Gas Removal credits.</p> <p>Parliament dissolved at the end of the month after Rishi Sunak announces a General Election on 4th July.</p>		<p>The Govt held its largest ever renewable energy auction with 131 projects funded.</p> <p>The Crown Estate released two reports on how it will support renewable energy and nature recovery. Commitments include addressing barriers for renewable energy development.</p> <p>Ofgem and UKRI awarded £84m to 12 ClimateTech projects. This included funding for scaling up of First-of-a-Kind technology,</p>	
<p>January</p>		<p>May</p>		<p>September</p>	
<p>February</p>		<p>June</p>		<p>October</p>	
<p>Labour leader Keir Starmer reversed his party's commitment to invest £28bn in green investment.</p> <p>The Environmental Audit Committee warned that plans for a fleet of nuclear Small Modular Reactors were not progressing quickly enough.</p> <p>At the NFU conference, £220m of new Govt funding for AgTech was announced.</p> <p>The Advertising Standards Authority announced plans to use AI to combat greenwashing.</p>		<p>General Election manifestos neglected ClimateTech, with references limited to specific technologies and broad commitments to net zero.</p>		<p>The Budget changed the fiscal rules, and delivered funding for hydrogen and nuclear fusion. Capital gains and entrepreneurs relief tax rises were criticised by founders.</p> <p>The Industrial Strategy was published for consultation, and the National Wealth Fund launches.</p> <p>The Regulatory Innovation Office launched. £1.6bn was announced alongside this for an Engineered Biology Sandbox.</p> <p>£22bn was confirmed for CCUS technology.</p>	

A Year of the ClimateTech Policy Coalition

<p><u>Undaunted</u> & Imperial College launched a new MSc in Cleantech innovation to nurture budding climate innovators and support a pipeline of intelligent solutions that tackle climate change.</p> <p><u>Tech Nation</u> launched its revamped Climate Programme, supporting leading UK climate tech startups.</p>		<p><u>Cleantech for UK</u> released its manifesto for the UK elections</p> <p>May: <u>Tech Nation</u> hosted their annual climate policy event at the House of Lords, with Ed Miliband MP, connecting climate tech startups to policy makers.</p>		<p><u>Startup Coalition</u> launched its Built Different Report, outlining steps to embed technology in the decarbonisation of buildings and homes.</p> <p><u>Startup Coalition</u> hosted a ClimateTech day of events at the Labour Party Conference.</p> <p><u>Tech Zero</u> relaunched with a roundtable event welcoming CEOs of major tech companies.</p>	
<p>January</p>		<p>May</p>		<p>September</p>	
<p>February</p>		<p>June</p>		<p>October</p>	
<p><u>Undaunted</u> and partners launched the Better Futures Retrofit Accelerator to connect start-ups with clean retrofit and building solutions to London's built environment sector.</p>		<p><u>The Coalition</u> signed an open letter to the leaders of the main UK Political Parties urging them to prioritise ClimateTech.</p> <p><u>The Coalition</u> published a ClimateTech guide to the Manifestos ahead of the General Election.</p> <p><u>Tech Nation</u> hosted their investor showcase day,</p>		<p><u>Cleantech for UK</u> released its report Powering up the UK's Cleantech Advantage: Unlocking Investment for First of a Kind Projects; and submitted a response to the National Planning Policy Framework consultation,</p> <p><u>Tech Nation</u> hosted the Climate Leaders Forum, with FTSE250 business, industry bodies and a number of the UK's leading climate tech startups.</p>	

What the Sector is Saying

A core mission of the ClimateTech Policy Coalition is to aggregate the collective networks of our organisations to maximise the number of startups that can participate in policy discussion and feed directly into the policymaking process. To that end, just as we did previously in 2022 and 2023, in November 2024, we held a series of engagements to ensure that we heard views directly from ClimateTech stakeholders. We conducted three roundtables with startup founders, and one roundtable with investors. In addition, we reached out to the sector to submit responses to a survey asking for their views on the first six months of Labour Government. 59 ClimateTech founders or policy heads responded.

Over the course of these engagements and in responses to our survey, three themes emerged: a tentative optimism in the plans of the Labour Government, tempered by an early scepticism about the depth of detail beneath the headline gimmicks and whether the Government supports ClimateTech entrepreneurs, and an urgent need for policy that accelerates the use of ClimateTech.

Respondents to our Survey

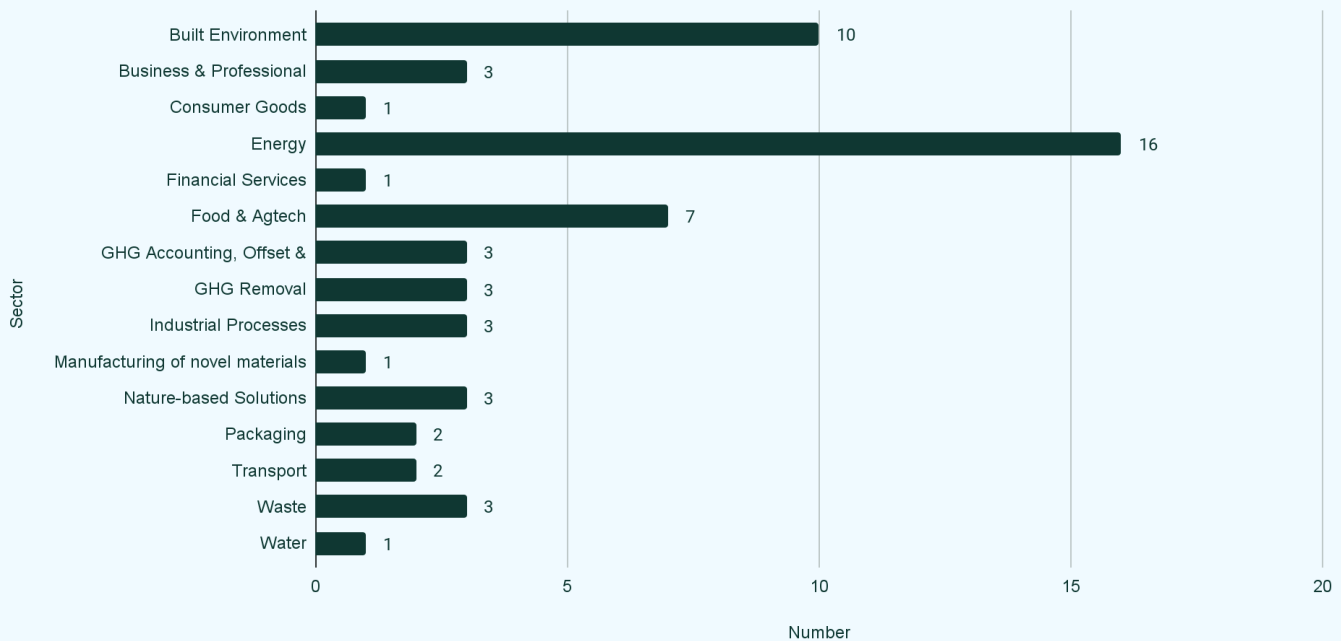


Figure 1, Responses by Sector

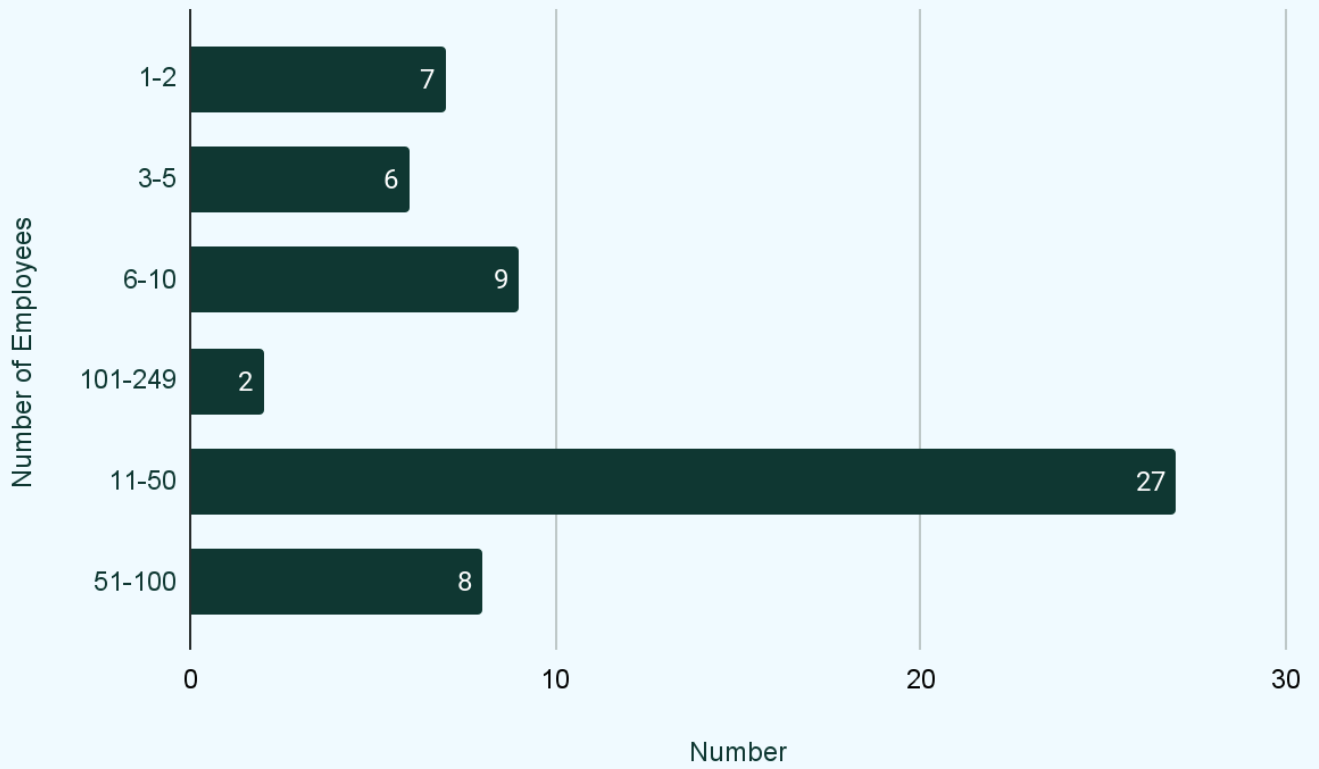


Figure 2, Responses by Number of Employees

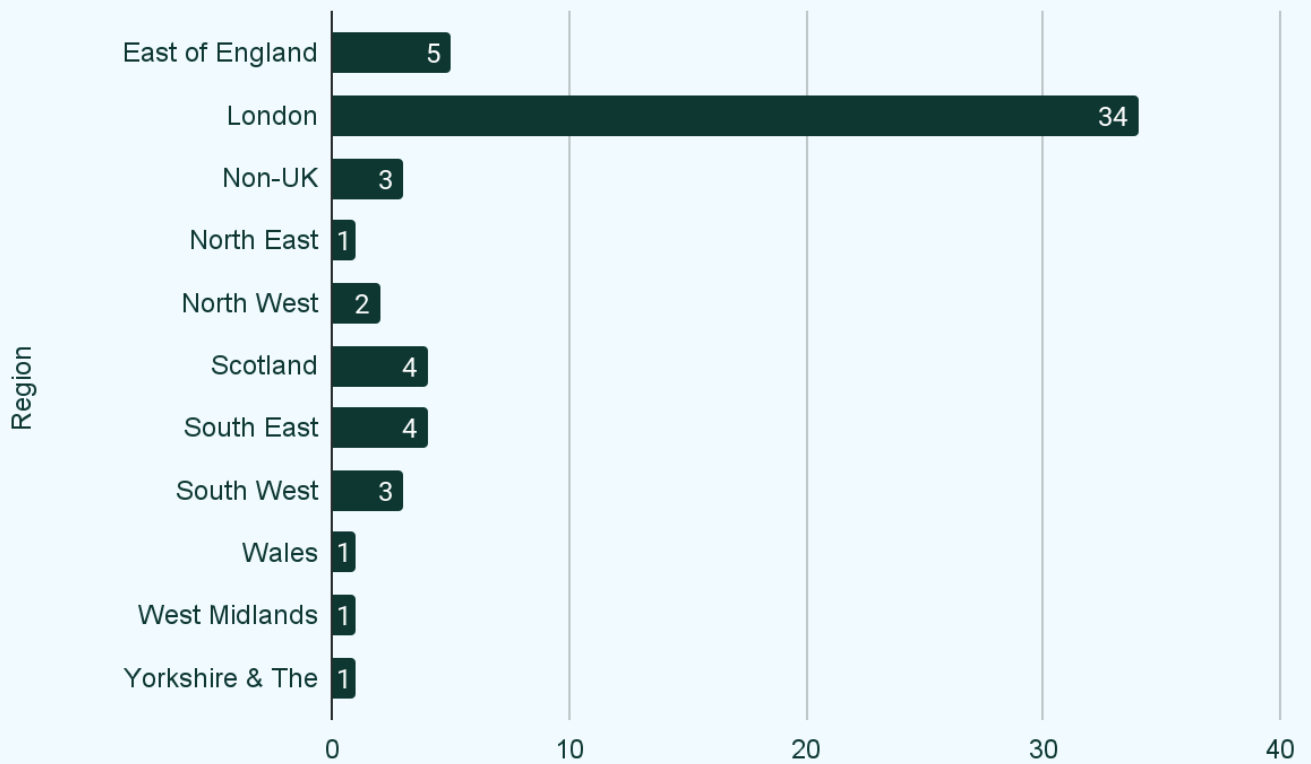


Figure 3, Responses by HQ Region

Reasons to be Cheerful

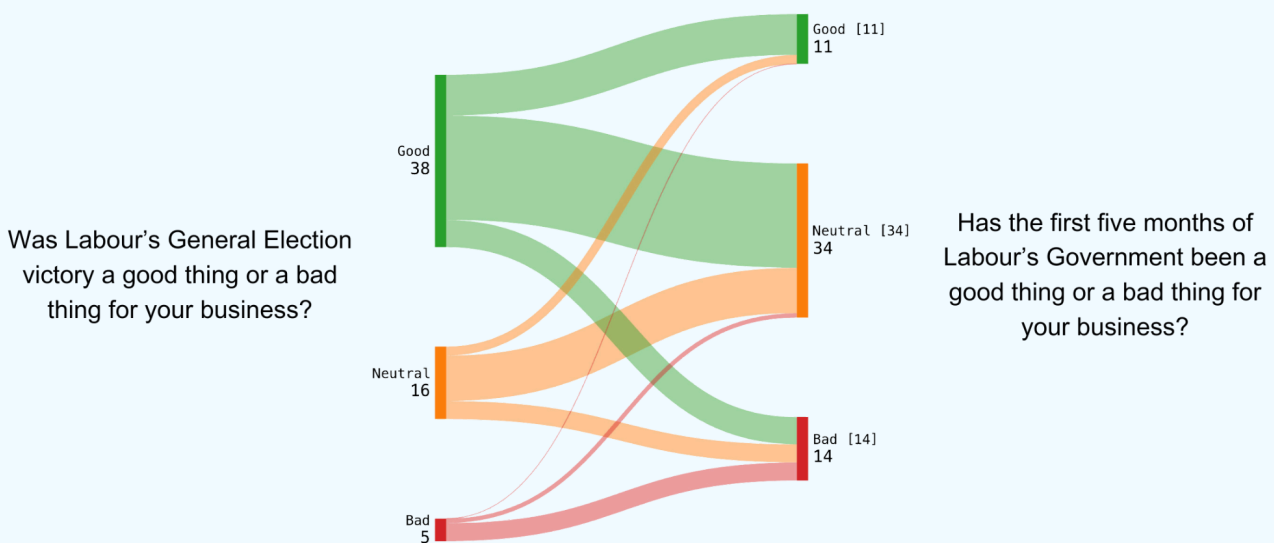
Across many of the conversations we have had with startup founders over the last six months, there is a general sentiment that the Labour Government is more ambitious to respond to climate change than the last administration.

Among those we surveyed, 38 viewed the Labour victory on 4th July 2024 as “quite good” or “very good” for their business, with only 5 saying it was a bad thing for their business.

We asked ClimateTech founders about a range of the Labour Government’s early policy commitments and there was a general familiarity with them - at least two thirds of survey respondents had heard of all of the policies we listed, with more than 8 in 10 familiar with GB Energy, the reversal of the ban on onshore wind energy, and the continuation of EIS, SEIS and VCT Incentives. Whilst many founders did not have an opinion either way, there was more positive than negative sentiment for how good these policies were, with only the investment in CCUS announced in October 2024 viewed almost equally good and bad among respondents. The continuation of EIS, SEIS and VCT Incentives was the most popular policy among survey respondents, with 43 of 59 founders viewing it as a good thing.

While there have been some positive signals, the overall sentiment from our November 2024 roundtables and survey responses was one of cautious concern. This shift is reflected in Figure 4 below, which highlights how respondents’ views evolved between Labour’s election victory and their first five months in government. Initially, 38 of the 59 respondents viewed Labour’s victory as positive for their business. However, this optimism tapered off, with only 11 finding the first five months beneficial to their business. Conversely, just 5 of the respondents initially viewed Labour’s election as negative for their business, but 14 expressed that their first five months in office had negatively impacted their business.

Figure 4, Sankey Chart showing founder perception of impact of Labour Government on their business.



Reasons to be Doubtful

Despite encouraging signals before the election, our roundtables and survey responses reveal a consistent theme: the transition from ambition to actionable support for scaling the ClimateTech sector in the UK is still in progress.

In particular, founders and investors we spoke with expressed some frustration around the communication of strategy and policy from the new Government. They noted that a lack of clarity has made it harder to engage with the substance of the policies themselves. However, many founders were empathetic, recognising that a new administration needs time to establish its footing and articulate a cohesive narrative. What concerns them more deeply is the perceived lack of detailed follow-through on key announcements, after years of criticism of “government by gimmick.”

This concern was reflected in the uncertainty expressed by respondents to our ClimateTech founder survey about the Government’s flagship policies. Over a third of respondents had no strong opinion, positive or negative, about GB Energy; over 40% felt similarly about the National Wealth Fund; and nearly half were neutral on the Warm Homes Plan. These are pivotal elements of the Government’s agenda, yet their potential relevance to ClimateTech founders remains unclear.

Founders across sectors consistently expressed a desire for greater substance to accompany the Government’s high-profile announcements. For example, roundtable participants called for clarity on GB Energy’s role and how it aligns with institutions like Ofgem and the Contracts for Difference regime. Startups in the built environment sector were uncertain about whether the Government’s Warm Homes Plan is a continuation of previous initiatives or a new approach altogether, with one founder describing it as “lacking clear meaning at this stage.” Similarly, the National Wealth Fund and industrial strategy were seen as needing further definition to demonstrate their relevance to startups.

While founders understand the complexity of policy making and do not expect immediate clarity, there is a prevailing sense that their role in these plans has not yet been fully considered. Unfortunately, these concerns were reinforced by measures in the October 2024 Budget, which many felt did not sufficiently address the needs of small businesses or the ClimateTech sector.

The Budget

Our engagement with the ClimateTech sector took place shortly after the October Budget, where Chancellor Rachel Reeves introduced tax changes that many founders felt would significantly impact entrepreneurs in the UK. Among respondents to our survey, 24 founders reported that the Budget was “quite bad” or “very bad” for their business.

While concerns were raised about changes to capital gains tax and Business Asset Disposal Relief, ClimateTech founders we spoke to highlighted the increase in employer national insurance contributions as particularly challenging. Many noted that this would directly affect their ability to hire in the short term, with 17 respondents to the survey indicating that they were now more cautious about expanding their teams compared to their outlook before the election.

One founder summarised a broader sentiment in the sector, expressing a concern that “it doesn’t feel like the UK is a place for entrepreneurs” any more. This perspective underscores the need for policies that strengthen the UK’s competitiveness and foster an environment where ClimateTech startups can thrive, innovate, and scale their impact.

The Urgent Need for Pro-ClimateTech Policy

Unfortunately, the concerns above have consequences. The UK’s £26bn ClimateTech ecosystem is not inevitable - indeed, quite the opposite.

ClimateTech founders told us that failing to capitalise on our ClimateTech foundations would be an act of self-harm - we need urgent policy action to support the sector.

Policy Uncertainty Harms Investment

Whilst entrepreneurs thrive in the face of ambiguity and exist to exploit gaps in the market, uncertainty in the foundational policy landscape creates unwieldy risk, and will put off investors. Whilst there is a lag in the data, early signals suggest that investment in the UK’s ClimateTech sector is down year on year, and the Government should never underestimate the burning runway facing most ClimateTech entrepreneurs.

When asked to identify barriers to growth in their sector, the top single barrier selected by ClimateTech founder respondents to our survey was access to capital, with nearly two thirds saying it was.

To reinforce this message, we heard similar from ClimateTech investors, who voiced significant concerns to us about the challenges facing the UK’s hardtech and cleantech sectors, particularly in the context of raising capital amidst economic uncertainty. General partners (GPs) and funds are finding it increasingly difficult to secure commitments from limited partners (LPs), with the high-risk nature of hardtech exacerbated by the broader economic climate. This situation has forced many portfolio companies into bridge rounds simply to stay afloat. Early-stage companies, especially in the pre-seed phase, are seeking more substantial grant funding overseas, where countries like France and Germany provide millions in support compared to the UK’s smaller-scale grants. This disparity puts UK hardtech and deep tech firms—requiring long timelines and high capital investment—at a significant disadvantage.

The macroeconomic landscape is also shifting following the 2021-2022 climate funding boom. During that period, capital-rich climate and crossover funds aggressively pursued limited assets at inflated valuations. Today, companies that benefited from that hype cycle are increasingly constrained by bridge rounds rather than new equity injections. These tighter conditions reflect not only the normalisation of the market but also the growing competition among LPs for reduced capital pools, challenging GPs to adapt to more conservative funding environments.

Policy inconsistencies compound these difficulties. Investors have flagged the inadequacy of current grant structures, which are fragmented and fail to support sustained commercialisation or production. A lifecycle-based grant approach could help address this gap. Additionally, fluctuating policy timelines—such as uncertainty around gas boiler phase-out schedules—make it difficult for businesses to plan and execute effectively. The tendency to prioritise tech-specific solutions, like heat pump incentives, over broader, more adaptable policies further complicates the landscape for innovation.

Policy Uncertainty Limits ClimateTech Mitigation Impact

A second theme that came up in discussions about the need for urgent policy support for ClimateTech was that the abatement impact of ClimateTech will be limited by uncertainty, both domestically and abroad.

Firstly, the fragility of this sector has ramifications for the UK Government's ability to meaningfully take action to combat climate change *at home*. In our roundtable discussions we heard numerous examples of where the Government's agenda will be made more challenging, if not fundamentally undermined without joined-up policy with innovation at its heart. One specific example that came up was the Extended Producer Responsibility regulations to accelerate sustainable waste and packaging management - a good idea that lacks underpinning data to ensure its integrity. A second example was Energy Performance Certificates, which provide the foundations for the Government's built environment decarbonisation agenda but currently rely on outdated methodologies that entrench legacy technologies.

Furthermore, the Government's mission to reach net zero in the energy grid by 2030 is also undermined by a lack of policy that incentivises ClimateTech innovation and adoption. In the National Energy System Operator's (NESO) Clean Power 2030 November 2024 report, all identified clean power pathways required "increased digitalisation, open data and Innovation."¹ This includes innovation in how the energy market functions, how data is used, how electricity is transported through the grid, how the grid itself functions, how consumers interact with energy, how energy is generated... and so on. One founder that contributed to a roundtable stated he and fellow founders were "crying out for policy clarity around energy".

ClimateTech founders are at the epicenter of this innovation. Without them, the UK will need to source this innovation elsewhere, potentially at higher cost, whilst foregoing all of the spillover effects and economic growth associated with it.

Secondly, if the UK wants to meaningfully combat *global* climate change, it should cultivate an environment to create ClimateTech innovation in any sector, everywhere, all at once. COP29 was not an abject disaster, but it demonstrated that international negotiations in an era of geopolitical uncertainty can only achieve so much. Exporting ClimateTech is the other way in which the UK can support decarbonisation at scale around the world, today.

¹ <https://www.neso.energy/publications/clean-power-2030>

Our Priorities for the Labour Government

The state of the sector outlined above drives the ClimateTech Policy Coalition's work forward, and to this end, we have reframed our long list of policy recommendations for the Government into a new framework below.

Firstly, **we support the Labour Government's efforts to introduce an Industrial Strategy, and set out how it should be used to accelerate ClimateTech innovation.** This is a huge opportunity to embed innovation and technology into the UK economy, whilst identifying the opportunities for the Government to unlock sustainable growth.

Secondly, **we outline how Labour's policy priorities could be used to support ClimateTech.** From GB Energy to the Warm Homes Plan, from its ambitions to unlock data across the economy, to the deployment of a new National Wealth fund, there are key opportunities for the Labour agenda to be tailored to maximise our ClimateTech opportunity.

Finally, **we present a blueprint of the low-hanging fruit to unleash ClimateTech innovation.** This list builds on the foundations from our previous two reports, but doubles down on the low-cost, relatively straightforward policy asks. Critically, if taken, these steps will have an outsized impact on UK ClimateTech founders. They should be the priority additions to the Labour Government's 2025 agenda.

Industrial Strategy

The United Kingdom is at a critical juncture in its economic and environmental transformation. With the recent consultation on the national industrial strategy, there is a unique opportunity to shape an enabling framework that supports climate technology as a core part of the UK's long-term growth and decarbonisation objectives, critical when we consider the urgent action demanded by the climate crisis. After the UK Government committed to one of the most ambitious National Determined Contributions at COP29 in Baku, it has an opportunity to match this with a commitment to developing world leading ClimateTech solutions domestically, creating high-quality jobs, and securing sustainable economic prosperity. By aligning industrial strategy with climate goals, the UK can gain a competitive edge in the rapidly evolving ClimateTech sector, ensuring that its economy not only adapts to environmental challenges but also actively contributes to the global transition to a low-carbon future.

The current industrial strategy, as outlined in the green paper, attempts to cover a vast array of sectors, from creative industries to financial services. While this breadth highlights the diversity of the UK economy, it risks diluting the strategy's focus and impact. To maximise its effectiveness, the strategy must prioritise enabling transformative technologies with the greatest potential to drive significant economic and decarbonisation impacts. Key areas such as novel renewable generation, hydrogen, energy storage, and carbon capture stand out as essential to this transformation. These sectors offer substantial opportunities to reduce emissions while driving economic growth, creating skilled jobs, and strengthening the UK's global competitiveness.

Global best practices, such as the United States' Inflation Reduction Act, highlight the importance of embedding climate technology at the centre of industrial strategy. The UK already holds competitive advantages in offshore wind, hydrogen, and carbon capture technologies. By strategically investing in these areas, the government can unlock domestic innovation, scale pioneering solutions, and build a world-class climate tech ecosystem that attracts global investment.

Several interlinked priorities will determine the success of this strategy. Workforce development is a critical starting point. Expanding apprenticeships, sector-specific training programmes, and tailored educational initiatives will equip workers with the skills needed for emerging climate tech industries. Collaboration between industry and educational institutions can align training with the demands of a rapidly evolving sector, ensuring no one is left behind in the transition to a green economy.

Equally vital is fostering innovation. Streamlining regulatory processes in planning, permitting, and licensing will accelerate the deployment of novel and First-of-a-Kind (FOAK) projects. Consistent, long-term policy clarity will also attract investment and create the stability that businesses need to plan for the future.

These reforms must be supported by targeted financial measures to help technologies move from concept to market at scale. Leveraging both public and private investment will be another cornerstone of the UK's climate tech strategy. A robust funding environment, with mechanisms to support innovation at all stages, is essential.

The National Wealth Fund can play a pivotal role as a lead investor, catalysing investment in FOAK projects and early-stage commercialisation.

By taking on risks that the private sector typically avoids, the Fund can unlock larger flows of private capital, encouraging institutional investors, venture funds, and industry leaders. Blended finance tools, such as first-loss guarantees, targeted loans, and financial guarantees, will further de-risk projects and attract private sector participation. This approach, successfully adopted in other markets, accelerates the development of transformative technologies while ensuring their commercial viability.

Public-private partnerships will also be instrumental in scaling climate tech innovations. By providing stability and long-term commitments, the government can instil confidence among private investors. Combining government-backed finance with tools like first-loss guarantees will bridge funding gaps, enabling the commercialisation of world-class technologies critical to achieving the UK's climate goals and securing its position in the global green economy.

To ensure the National Wealth Fund truly supports innovation and climate technology, its design and implementation must be tailored to the unique challenges and opportunities of the cleantech sector. A well-structured Fund can catalyse transformative change by prioritising investments in high-impact technologies, bridging critical funding gaps, and de-risking early-stage innovations. By setting a clear mandate to advance climate tech solutions, the Fund can help unlock private capital, scale pioneering projects, and secure the UK's position as a global leader in the green economy. It is also essential that the Fund supports a wide range of founders, ensuring opportunities are open to diverse talent across the UK. Encouraging inclusion in this way will strengthen the innovation ecosystem, bringing varied perspectives to the challenges of climate change and driving equitable, impactful solutions.

Investing in data-driven solutions will further bolster the UK's climate tech ambitions. Initiatives like Open Finance and Open Energy can drive efficiencies, enhance decision-making, and unlock new opportunities for innovation. Advanced data infrastructure will help businesses and governments identify trends, optimise systems, and accelerate the adoption of climate technologies, making net-zero objectives more attainable.

The consultation on the national industrial strategy presents a crucial opportunity for the UK to prioritise climate technology as a cornerstone of its economic future. By focusing on transformative technologies, fostering innovation, and leveraging strategic investment, the UK can ensure its industrial strategy enables both decarbonisation and economic growth. This approach will not only position the UK as a global leader in climate tech but also ensure its competitiveness in an evolving global market. Through strategic alignment of industrial and climate goals, the UK can secure a prosperous and sustainable future for generations to come.

Embed ClimateTech into Labour's Priorities

In our state of the sector section above, we reported how many ClimateTech founders are crying out for detail on how Labour wants to convert its platitudes into tangible plans to accelerate the net zero transition. This is illustrated by many not being able to identify whether some of Labour's flagship policies matter to their business at all.

To fix this, Labour must embed technology and innovation into its Climate agenda.

This starts with Industrial Strategy as set out above, but must then leverage the foundations it has set over the first six months in Government to accelerate the deployment of ClimateTech. What could this look like?

GB Energy

GB Energy could be a catalyst to supercharge the transformation of the energy sector not just away from fossil fuels, but towards a data-driven, digital, tech-enabled ecosystem. Indeed, in order for Labour to stand a chance of achieving net zero in the electricity grid by 2030, it requires nothing less than wholesale adoption of technology in every stage of the sector. Startups can play a key role here in three main ways: by supporting earlier stage renewable energy startups, coordinating efforts to unlock data which would be extremely beneficial to startups, and by accelerating market reform, further promoting innovation and competition.

Maximising Novel Renewable Generation

When he was asked by the GB Energy Bill committee in November 2024 how GB Energy would interact with the Contracts for Difference Regime, GB Energy Director Jürgen Maier suggested that the new entity would interact with the market both before and after the CfD Regime. With limited resources, a finite budget, and a compressed timeline to deliver, we believe that GB Energy must make a concerted effort to catalysing earlier stage renewable energy generation - this is where its focus could really add value, particularly with the Net Zero Innovation Portfolio funding in flux until the Comprehensive Spending Review process is complete.

GB Energy's convening power and mission-mandate could speed up the deployment of earlier stage energy generation projects that require coordination across local authorities, Ofgem, and the Nation Grid, like Tidal Stream and Geothermal. It should also coordinate closely with GB Nuclear to ensure that the Small Modular Reactor (SMR) programme is expedited. Finally, there may be scope for GB Energy to interact with Ofgem's nascent Future Regulation Sandbox to support the deployment of novel generating technologies, including those operating on micro-grids or through virtual power plants.

Unlocking Data

There is a broader opportunity for the Labour Government to unleash ClimateTech innovators through data strategy, discussed below, but GB Energy also has a key role to play. It is anticipated that the Department for Energy Security and Net Zero will conduct a call for evidence on using the new powers in the Data Use and Access Bill to unlock Smart Meter data for consumers to share with authorised third parties. This would apply the same technology used in Open Banking, which has been leveraged by over 11 million UK consumers, in the Energy sector.

Smart Data gives individuals and businesses control to share their real-time data and harness it for practical needs like optimising grocery purchases or anticipating energy bill spikes. Without Smart Data, customers' data is trapped with heritage service providers, limited to what they are willing to offer. But with Smart Data, consumers will be able to better choose if, when, and how they share their data and opt into services that prioritise convenience and unique personalisation.

The opportunities this would unlock for innovation and competition would be significant, including supporting consumers to migrate to smart tariffs, identifying opportunities to save on energy bills through using energy at different times, and perhaps even supporting consumers to understand the carbon intensity of their bills. Startups would sit at the centre of this Smart Energy Scheme, particularly as many are already offering similar use cases today.

GB Energy should be a core stakeholder in the development of Smart Data in the energy sector, not least because the powers in the Bill could be used to support accessing a wide range of energy datasets, not just Smart Meter data.

Market Reform

GB Energy must align its scheme of work with the broader work to reform the retail energy market. In December 2024, the Government published its Clean Power 2030 Plan alongside an update to the Review of Electricity Market Arrangements, including a Government response to the second REMA consultation, held earlier this year.² The headlines were that the process will conclude in 2025 and that no decision has yet been taken between zonal pricing or reformed national pricing, with both options still under “equal consideration”.

Whilst GB Energy will play a role in supporting specific generation technologies and modernisation of the grid network, REMA will design the future of the electricity market - this is arguably more important to the tech sector. The recent update made it clear that the Government, Ofgem, and the National Energy System Operator believe the status quo cannot continue.

Today the UK has the highest electricity prices in the world - this is a core barrier to our transition to net zero. Accelerating the transition to the new arrangements must therefore be the priority.

² <https://assets.publishing.service.gov.uk/media/675acc977e419d6e07ce2bc3/rema-autumn-update.pdf>; <https://assets.publishing.service.gov.uk/media/675afaa0a3e5a798955a01b1/rema-summary-of-consultation-responses.pdf>

The Warm Homes Plan

The Warm Homes Plan has become the catch-all term used to describe multiple strands of Labour's approach to retrofitting homes and reforming regulations to increase home efficiency and comfort, particularly for tenants. Over the course of Labour's first six months in office, the Government has introduced new grant funding to support low-income homeowners and private tenants, boosted the budget for the Boiler Upgrade Scheme, and announced planning reform to make heat pump installation easier. In December 2024, they then announced reforms to the Energy Performance of Buildings Regime, including Energy Performance Certificates.

These steps are welcome, and are individually useful - but there remains a lack of strategy, particularly when compared to the sheer extent of the challenge, and Labour's parallel drive to build new homes. Specifically, the Government could be doing more to utilise and deploy technology that decarbonises homes today. In a section later on, we will discuss the low hanging fruit, including how to increase the diversity of retrofit technologies accessible to households. This process starts, however, with ensuring that colleagues owning the Warm Homes Plan across the Ministry of Housing, Communities and Local Government and the Department for Energy Security and Net Zero proactively identify opportunities for disruption and innovation, interact with innovators, and identify pinch points in the ecosystem.

Unlocking Data: The National Data Library

As discussed above, one policy lever that the Government can pull to empower consumers to share their smart meter data unlock data is through Smart Data, but Labour has also hinted at the introduction of a National Data Library, which could be a route to supporting startups to get access to alternative datasets.

The UK has historically been a leader in digitalising public services and making public sector data accessible - supporting innovation across the economy. Founders can accelerate product iteration and speed to market through accessing public sector data sets, particularly now that AI is embedded in many firms. In its manifesto, Labour proposed a "National Data Library, to bring together existing research programmes and help deliver data-driven public services, whilst maintaining strong safeguards and ensuring all of the public benefits". Details of what this could look like in practice are scant but done well, the concept could offer an efficient and reliable way for innovators to get access to datasets.

We believe that the following datasets could offer particular value to startups:

- Data on Farm Subsidies, Land Parcels, and Land Use from the Rural Payments Agency of DEFRA
- Satellite and Airborne Imagery from the Geospatial Commission
- Geospatial, Weather, and Solar Irradiance Data from the Met Office
- The National Soil Map and other LandIS Datasets
- Granular Supplier Emissions Data from BEIS or ONS

It is also aspirational for the Government to consider how it could use "sandboxes" to enable innovator access to synthetic data sets to accelerate early stage innovation.

The Low Hanging Fruit

Beyond what the UK Government has said it *will* do is a list of policy actions that the ClimateTech Policy Coalition believes it would be foolish not to do. This list builds on the agenda set out in our previous reports from 2022 and 2023, but is refreshed to account for updates since, and also the political and fiscal context that the Government now finds itself in. This is not ranked in any particular order.

A Waste Sandbox

In March 2023, then Chief Scientific Adviser to the Government Patrick Vallance undertook a series of reviews into how pro-innovation regulation can unlock technology, including a dedicated focus on green industries. He recommended that “the government should support the Environment Agency, other regulators and standards bodies, research institutions and a chosen local authority to establish a regulatory sandbox for the innovative use of waste products.”

This was very similar to our previous recommendation that the Government should look to introduce a sandbox for the innovative use of waste products.

In the then Government’s response to this recommendation, they agreed that “there is merit in establishing a regulatory sandbox for the innovative use of waste products.” We believe that this concept should be twinned with the recommendation in Professor Dame Angela McLean’s “Pro-Innovation Regulation of Technologies Review: Advanced Manufacturing” that the government should work with stakeholders on cultivating the circular economy.

There has been no progress on this after the election, but Patrick Vallance is now a Minister in the Department for Science, Innovation and Technology, and supported the creation of the Regulatory Innovation Office (RIO) in October 2024. In their manifesto, Labour outlined plans to introduce the RIO to “help regulators update regulation, speed up approval timelines, and coordinate issues that span existing boundaries”. RIO is a potential home for this Waste Sandbox, as it would require coordination between local authorities and the Environment Agency at minimum.

Updating the Definition of Plastic in Law

We have heard from multiple startup founders, including those that are part of the Natural Polymers Group, that the definition of “plastic” being used to underpin the plastic packaging tax is poor and that the UK.³ The definition was inherited from the EU and is very ambiguous in defining the “main structural component” of packaging, which enables packaging with synthetic coatings to be exempt if they are not interpreted as “structural”. This loophole means that truly innovative non-plastic alternatives, such as plant-based polymers, are at a disadvantage.

³ <https://naturalpolymersgroup.com/>

To ensure that the government’s waste policy to counter plastic waste can be effective, this definition must be updated to distinguish between plastic and natural polymers.

This could require an amendment to the Finance Act 2021 where the Plastic Packaging Tax was introduced and could be achieved as part of the next major fiscal legislation.

A Retrofit Sandbox

In our most recent ClimateTech policy report in November 2023, the ClimateTech Policy Coalition exposed a critical gap for some innovative startups in the built environment sector: in order for vendors of cutting-edge technologies to offer their products under schemes including the ECO, the SHDF and the HUG, the PAS 2035 standard requires that they must be installed to a set of requirements for that technology’s “measure type”. For firms that provide new technologies, there is no “measure type” to adhere to, and consequently they are locked out of the scheme.

Remedying this challenge will require the Government to coordinate across the sector and, as identified in Startup Coalition’s 2024 Built Different report, it should leverage the RetroNetZero “Network” founded by BRE in 2024 to “guide innovators through the regulatory aspects of deploying products into domestic retrofit”.⁴ RetroNet Zero acts as a gateway for innovative firms to understand the requirements for approval, be signposted to the right processes and organisations, and to feed in opportunities to iterate and improve the process. It is an excellent start. To really unlock the opportunity of RetroNetZero, however, it needs a new home to maximise its potential, else large incumbents and the standards bodies themselves may not embrace change. To do this, there is nowhere better than the RIO.

The Labour Government should introduce a retrofit sandbox as a first initiative under its Regulatory Innovation Office.

Consult on the Voluntary Carbon Markets

At its core, the challenge of combating climate change is one of quantifying an externality: today we do not pay for emitting harmful greenhouse gases. To solve for this market failure, there are two main options. Firstly, compliance markets introduced by Governments to limit the permissible levels of emissions by certain actors - these only cover 24% of global emissions today. For the remaining three quarters, the Voluntary Carbon Market (VCM) is a private market where actors voluntarily purchase credits that fund projects that result in GHGs being removed from the atmosphere, or not emitted in the first place.

Once a wild west, the VCM has matured thanks to industry collaboration and standards, but it is far from perfect. From firms making spurious claims to green-wash their products, to the underlying credits being

⁴ <https://events.bregroup.com/wp-content/uploads/2024/07/RNZ-project-overview-June24-v2.pdf>

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.

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 consult on its role in supporting the VCM as a matter of priority.

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 2025.⁵ This timeline must be kept to, particularly as it will enable the Government to distinguish between how different types of credit should be treated.

Funding Greenhouse Gas Removal

There is a growing consensus in the ClimateTech sector that it is aspirational for high quality, high integrity carbon removal credits to be offered through the UK Emissions Trading Scheme (UK ETS). Fortunately, this was the direction outlined in the Government's "Integrating greenhouse gas removals in the UK Emissions Trading Scheme" consultation, which closed in August 2024.⁶ Whilst the outcome of the consultation is uncertain, it looks likely that the direction of travel is that to enable GGR credits to be funded, the UK ETS will include a new type of UK-based "Technology-specific GGR Allowance", which itself would vary when attached to a distinct method of removal.

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 included under the UK ETS 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".⁷ This was confirmed but elaborated further in the Summer 2024 consultation.

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.

⁵

<https://www.gov.uk/government/publications/voluntary-carbon-and-nature-market-integrity-uk-government-principles/principles-for-voluntary-carbon-and-nature-market-integrity>

⁶

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

⁷ <https://www.gov.uk/government/publications/greenhouse-gas-removals-ggr-business-model>

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

Novel Food Authorisation Reform

The global cultivated meat market was valued at \$246.9 million in 2022, with a predicted compound annual growth rate (CAGR) of 51.6% from 2023 to 2030. Startup Coalition data this year found that the UK is home to a small but growing cultivated meat sector, which has raised over £70m in the last five years, and is worth over £160m.

In June 2023 Deloitte undertook a review of the novel foods authorisation process for the Food Standards Agency (FSA). The findings of this report helped prioritise novel foods authorisation under the new Regulatory Innovation Office (RIO), which launched in October 2024. As part of its initial remit, £1.6m was confirmed to fund FSA scientists working in tandem with academics, industry and trade bodies to develop guidelines for future applications.

This is a great first step, but it's unclear that this is sufficient resourcing to fully future-proof the process. Critically, even if this RIO led process works perfectly, the application process will always be somewhat limited by the UK Government's failure to adjust the legislative timeline to approve a novel food application since leaving the EU. This timeline includes stages that are permitted to take months to accommodate approvals in every member state - this should have been changed since Brexit, and should be explored in tandem with the RIO process.

Agricultural Autonomous Robots Regulations Reform

One of the "Brexit Opportunities" identified in our December 2022 report was reform of the regulations overseeing the use of robotics in agriculture. Indeed, the need for "moonshot" innovation was included as a key recommendation in the Independent Review into Labour Shortages in the Food Supply Chain, conducted by John Shropshire OBE in June 2023. Further, the need for policy refresh of agricultural robotics featured as a key recommendation in the Government's Chief Scientific Advisor Dame Angela McClean's "Pro-Innovation Regulation of Technologies Review: Advanced Manufacturing" in November 2023, and in the previous Government's response to the Independent review into labour shortages in the food supply chain.

This has yet to be actioned, but the announcement that the Labour Government will conduct a refreshed Food Strategy in 2025 offers a prime opportunity to revisit this issue as part of a holistic assessment of food production in the UK.

Summary

The policy actions outlined in this report present a clear roadmap for accelerating ClimateTech innovation and achieving the UK's environmental and economic objectives. By addressing key regulatory barriers and creating conducive environments for innovation, the Government has the opportunity to position the UK as a global leader in sustainable technology. Immediate action on these priorities will not only drive progress towards climate goals but also foster long-term economic growth, job creation, and international competitiveness.

Below is our list of low hanging fruit that should be prioritised by the Government:

1. **Waste Sandbox:** Establish a regulatory sandbox for innovative waste reuse, integrating the circular economy. Leverage the newly created Regulatory Innovation Office (RIO) for coordination.
2. **Update Plastic Definitions:** Amend the Finance Act 2021 to clarify "plastic" in the Plastic Packaging Tax, ensuring natural polymers are not disadvantaged.
3. **Retrofit Sandbox:** Introduce a retrofit sandbox under RIO to help startups navigate regulatory barriers in deploying innovative technologies for domestic retrofits.
4. **Support Voluntary Carbon Markets (VCM):** Maintain timelines to consult on high-quality VCM standards in 2025, ensuring market integrity and distinguishing credit types.
5. **Funding for Greenhouse Gas Removal:** Define qualification criteria and robust monitoring standards to enable GHG removal credits under the UK ETS, incorporating industry best practices.
6. **Novel Food Authorisation Reform:** Streamline approval processes for cultivated meat and other novel foods post-Brexit to support sector growth, supported by RIO-led initiatives.
7. **Agricultural Robotics Regulations:** Reform regulations on agricultural automation as part of the Labour Government's 2025 Food Strategy, unlocking innovation to address labour shortages.

