<u>ClimateTech</u> Index

1000 UK Startups Combatting Climate Change

(June 2025)



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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, former 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.

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 December 2024, can be found <u>here</u>.

Acknowledgements

Many thanks to Beauhurst for supplying the data underpinning this Index. Many thanks also to the Index startups that are profiled in this report and for the hundreds of firms engaged in Startup Coalition's ClimateTech advocacy.

About Beauhurst

Beauhurst is the ultimate private company data platform. We source, extract and package data from thousands of locations to create the best source of information on the UK's companies, the investors that back them, and the people that run them. Whether you're interested in early-stage startups or established companies, we've got you covered. Our platform is trusted by thousands of business professionals to help them find, research and monitor the UK's business landscape. For more information and a free demonstration, <u>visit beauhurst.com</u>.

Policymaker Foreword

The road to net zero is not just a climate imperative but an economic opportunity. Last year, I was proud to be elected as the MP for Exeter as part of a Labour Government that firmly believes this. Two of our missions for Government are sustained economic growth, and to make the UK a clean energy superpower. ClimateTech is at the confluence of the two.

As Chair of the ClimateTech APPG and member of the Science, Innovation and Technology Select Committee, I've seen first hand that the UK has an extraordinary chance to lead the world in building the innovative, clean industries that will define the 21st century.



This year's ClimateTech Index from Startup Coalition highlights a sector in motion — one that has weathered global uncertainty and continued to grow. £42bn in value. £19bn in private capital raised. 26,000 jobs across the country. This is the green economy in action: high-skill jobs, cutting-edge innovation, and real momentum behind decarbonisation.

I'm especially proud that my own constituency of Exeter is home to firms featured in this Index. Companies like EMotive, pioneering battery innovation; Ethical Power, scaling renewable infrastructure; and ValueXD, using advanced data to support sustainable decision-making. Exeter's strengths in science, academia, and clean growth are being translated into tangible climate solutions. These are the kinds of companies that will drive both local prosperity and national progress.

Through the ClimateTech APPG we've heard from founders at the vanguard of this sector, hearing how innovation and policy can work hand-in-hand to unlock this opportunity. But the numbers also tell us where work remains. For instance, the fact that female founders in the sector find it harder to raise cash should give us pause. Talent is everywhere, but opportunity is not yet. We must do more to ensure the net zero economy of the future is diverse, inclusive, and fair.

As we look ahead, the role of Government could not be clearer. The success of ClimateTech demands long-term thinking, targeted support, and bold ambition. It also demands that we protect our leadership in the sector, not just by nurturing early-stage ideas, but by helping our best companies scale and stay.

The 2025 ClimateTech Index is both a celebration and a call to action. The UK has the people, the ideas, and the energy to lead the high-tech, high growth net zero transition, and I'm excited to be part of a Government that stands wholeheartedly behind it.

Steve Race MP, Chair of the All-Party Parliamentary Group on ClimateTech

Industry Foreword

Economic growth comes from a combination of societies' activities seizing today's opportunities while building a future that anticipates future demand. At a time defined by political and market volatility, pressures on energy and industry, and ecological tipping points, the ClimateTech sector has proven a bright spot for powering growth.

For the UK, the ClimateTech sector is a global standout, and continues to show not only resilience, but progress. This year's Startup Coalition ClimateTech Index finds that the top 1,000 ClimateTechs have raised more than £19bn to date, are now valued at over £42bn, and employ over 26,000 people. The companies are delivering better outcomes for businesses and consumers by making



energy more affordable, supply chains more efficient, and providing superior services and experiences. This is innovation with impact; high skilled jobs across the country; and real, green growth.

The UK's entrepreneurial spirit, academic excellence and global outlook make this country one of the best places in the world to start a transformative firm looking to create the technologies of the low carbon future.

At 2150, we invest in companies that seek to sustainably reimagine and reshape the urban environment, and see through our own investment that the UK remains a fertile ground for ClimateTech entrepreneurs solving the world's most pressing energy and industrial challenges.

ClimateTech in the UK is leading new, high-growth industries like direct air capture (DAC), with companies like Mission Zero Technologies headquartered in east London. Under the leadership of CEO Nick Chadwick, Mission Zero has partnered with waste management firm O.C.O Technology to deploy a first-of-a-kind DAC system at their Wretham facility in Norfolk that produces carbon-negative building materials. This containerised system combines CO₂ in our atmosphere and waste fly ash into limestone ready for use in concrete. This is critical ClimateTech infrastructure, in the heart of Norfolk broads. Mission Zero is one of the 1,000 firms in this Index, a cohort which features incredible founders catalysing decarbonisation across the economy.

Firms in this Index reaffirm that talent and innovation are not the bottlenecks. Policy consistency and late-stage capital access still are. While it is encouraging to see the sector grow in value 5% year-on-year, the persistent funding gap beyond Series A continues to limit companies transitioning from prototypes to commercial solutions. Policymakers should recognise that bridging this "valley of death" is not only an economic opportunity, but a national imperative.

The UK is home to world-class universities and accelerators that serve as vital launchpads, and there are 121 spinouts featured in this Index. But a worrying trend continues: firms with promising IP are not scaling as fast as they could, or migrating to ecosystems that offer more mature capital markets and clearer regulatory pathways.

ClimateTech is a global race, but the UK has a head start thanks to deep scientific expertise, entrepreneurial talent, and a historical political consensus on climate action. This consensus is now fragmenting, but we have a Government with ambitions to fulfil the potential of the low carbon economy. The UK must build towards an economy whose growth is powered by solutions that build energy independence, secure supply chains and deliver cheaper and better services. This starts with those entrepreneurs at the vanguard of ClimateTech.

This Index is a rallying cry for UK ClimateTech, a £42bn sector delivering jobs, growth, and innovation across the country – and a critical ally in the Government's mission for the UK to become a Clean Energy Superpower.

Christian Hernandez, Partner & Co-Founder at 2150

Executive Summary

This 2025 ClimateTech Index provides a comprehensive snapshot of the UK's most promising climate technology startups, profiling the top 1,000 firms based on private capital raised. As the UK navigates an ambitious clean energy and economic growth agenda, this report highlights the immense potential, and pressing challenges, facing the ClimateTech sector.

The top 1,000 ClimateTech startups in the UK have raised over £19 billion, are valued at £42 billion, and collectively employ over 26,000 people.

ClimateTech continues to be a driver of regional economic growth, with over half of jobs located outside London and eight regions now hosting £1bn ecosystems. The UK continues to have the raw ingredients to be a world-leading ClimateTech hub, with incredible universities, geographic assets, and an entrepreneurial spirit that should be celebrated.

The Index spans 14 sectors, from food and agtech to greenhouse gas (GHG) removal and water, with 121 university spinouts and 23% accelerator graduates. EnergyTech dominates, just as it did in the 2024 Index, with one third of firms in the Index focused on decarbonising energy, making up nearly half of all investment and over 11,000 jobs. Female founder representation remains in line with broader industry, with 18% of startups having at least one female founder, although only 4% are solely female-founded, which is below the rest of the economy.

There are many reasons to be cheerful, including the fact that the total value of the Index rose 5% year-on-year. Meanwhile, firms in hardware and manufacturing are scaling outside traditional tech hubs, with new entrants like Watergate, Ponterra, and Molyon showcasing innovation in water, land restoration, and batteries. Several sub-sectors showed investment growth year on year based on the best available data, including in Greenhouse Gas Removal, Materials & Packaging, and Nature-based Solutions.

However, there are also early warning signs. For instance, fundraising dropped by half between 2023 and 2024, driven by a collapse in mega-rounds and grant funding, and even though there will necessarily be a lag in the data for some of the rounds in the most recent year, it's unlikely that these will be sufficient to compensate for the shortfall. Further, 2024 saw 40 firm failures, more than double the previous high. Meanwhile, the late-stage valley of death fundraising gap persists: 88% of the firms in the Index have raised Series A funding but only a third have progressed to Series B. With the Government's rightful emphasis on deployment, this must be addressed.

For Startup Coalition, there are three key takeaways for a Labour Government prioritising growth and climate action.

- 1. ClimateTech fuels growth: Supporting this sector advances Labour's mission of G7-leading economic expansion, especially in underserved regions.
- 2. ClimateTech innovation is critical to the Clean Power 2030 mission: from generation to grid, innovations in this Index are vital to achieving net zero electricity targets, and reducing bills.
- 3. Regulatory reform is essential: There should be a clinical focus on building markets and cutting red tape that entrenches the fossil fuelled economy.

Introduction

For more than a decade there has been a near political consensus in UK politics that taking action to combat climate change is a priority. This support is underpinned by robust public support across the country, with 80% of people reportedly concerned about climate change in the latest public opinion tracker from the Department for Energy Security and Net Zero (DESNZ).¹

Political and public support in principle has converted into policy support in recent years. Under the Conservative Governments of the last 2010s and start of the 2020s, the contracts for difference auction was launched to scale renewable energy; the 2050 Net Zero target was enshrined in law; and the Net Zero Innovation Portfolio was deployed £1.3bn between 2020 and 2025 across hundreds of projects to scale climate-friendly innovation in the UK.

In parallel, the net zero economy in the UK has skyrocketed. The CBI's 2025 report found that the net zero economy grew 10% year on year from 2023 to 2024. There are nearly 23,000 net zero businesses, employing 273,000 jobs in the UK. Combined with an extensive supply chain, the net zero economy contributes £83bn to the UK economy. 94% of this sector is small and medium-sized businesses, of whom many are startups.²

According to PWC's 2024 Global State of Climate Tech, the sector has seen 52,000 venture and private equity backed deals worth more than £475 billion across the globe.³ The research found that the UK is home to 12,000 startups developing products and services to accelerate the net zero economy.

Last year Startup Coalition published its first ever analysis of the top 1,000 ClimateTech startups that have raised the most venture funding. Startups in this Index have raised a combined £15.4bn and employed over 24,000 people.

In the year since our first Index was published, the first Labour Government in fourteen years was elected on a platform grounded in "missions". Two of these missions were economic growth and accelerating climate ambition to make the UK a clean energy superpower. At the confluence of these two objectives, is ClimateTech: here entrepreneurs are developing technology that creates high-skilled jobs and valuable products to scale and sell domestically and across the world, all while displacing the fossil economy. Intuitively, there is no better ally in the Government's goals than the sector.

And what a sector.

This year, we have updated our Index, reflecting another year of fundraising, updated valuations, and a re-assessment of startups that have pivoted to now be part of the ClimateTech sector.

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https://assets.publishing.service.gov.uk/media/67d19522a005e6f9841a1d7d/desnz-pat-winter-2024-headline-findings.pdf

² https://www.cbi.org.uk/articles/growth-and-innovation-in-the-uk-s-net-zero-economy/

https://www.pwc.co.uk/press-room/press-releases/research-commentary/2024/uk-climate-tech-investment-surges-a Imost-25---with-ai-powered-so.html

In 2025, our ClimateTech Index is even more formidable than before: the top 1,000 ClimateTech UK startups have raised over £19bn, and at the end of 2024 employed over 26,000 people and had a combined valuation of £42bn.

These are superb high-level figures, and demonstrate robust support for the UK's innovative low carbon economy. Below the surface, this includes a £22bn energy sector accelerating the deployment of low carbon energy, increasing efficiency in the grid, and lowering energy costs across the economy – which should be music to the ears of Energy Secretary Ed Miliband. It also includes nearly 180 firms with a female founder, slightly above the average across all startups. Further, more than half of the jobs are based outside of London, powering growth across the country.

However, all is not completely rosy beneath the headlines. The re-election of Donald Trump in the USA, increasing conflict across the world, and the rise of populism across democracies in the West present systemic challenges to the low carbon economy. Inconsistent policy and political support precipitates additional risk for investors have resulted in a global slowdown in investment in ClimateTech according to PWC, with investment down nearly 30% year on year in 2024. In contrast, PWC's findings suggest that the UK did not experience a decrease in investment – but our data does not agree with this, instead suggesting that the UK's ClimateTech sector is also experiencing the chilling effect of global macroeconomic and macropolitical headwinds.

Our 2025 ClimateTech Index suggests that investment in the UK's best funded 1,000 ClimateTechs halved between 2023 and 2024.

Importantly, this slowdown is not uniform across every ClimateTech sector, nor across every region of the UK. This Index dives into the details to probe what's really going on and, crucially, lay the groundwork to equip policymakers in the UK with the tools to change the course.

Our Findings

Just like last year, the 1,000 startups and scaleups featured in this report include a wide range of technologies, sectors, and founder backgrounds. Fourteen sectors are represented, every region of the country, and a wide range of origin stories, from university spinouts, to bootstrapped dreamers; corporate offshoots, to serial entrepreneurs.

The minimum funds raised by a firm in the sample was by micro-hydropower generator Barn Energy, which raised just over £1m. Octopus Group continues to have raised more than any other firm in the sample, at over £1.2bn.

Headlines

- At the end of 2024, the UK's ClimateTech best-funded 1,000 ClimateTechs were worth at least **£42bn**, with the combined value increasing **5%** between 2023 and 2024.
- Combined, firms in the 2024 Index have raised over £19bn and received £1.2bn in grant funding.
- 89% of the funds raised by Index firms came in the form of equity finance.
- At the end of 2024, more than 26,000 people worked for ClimateTech startups in the Index.
- **18%** of firms in the Index had at least one female founder, with only **4%** founded solely by female founders.
- **121 of the 1,000 startups** in our Index were University Spinouts, with the University of Cambridge having spun out the most.
- 23% of ClimateTech Index firms have previously attended an accelerator program.
- 105 of the 1,000 firms in our Index have exited, with 138 having "died".
- Three of the firms in the Index have migrated their headquarters to the USA.

Reasons to be Cheerful

The size of the sector: The ClimateTech Index shows that the UK remains one of the best places in the world to start, scale and exit a startup. 20% of the ClimateTech Index firms have been launched since 2020, raising over £2bn in funding already. At the other end of the spectrum, exits continue to rise, with more firms in the Index exiting in 2024 than in any year since the post-Covid boom in 2021. Interestingly, whilst there was a drop of 16% in the number of individual firms that fundraised, the average amounts raised actually increased by 28%. Most significantly, the value of the 2024 ClimateTech Index firms rose by 5% between 2023 and 2024.

Some sectors continue to grow: Five ClimateTech sectors saw increases in year on year funds raised between 2023 and 2024, including Food & Agtech (19% increase); Greenhouse Gas Removal (219%); Materials & Packaging (49%); Nature-based Solutions (42%); and Water (11%).

The strength of the EnergyTech sector: The UK is home to a £22bn energy startup sector decarbonising energy production, distribution and usage, employing over 11,200 people across the UK – these firms are critical to the UK Government;s Clean Power 2030 mission, particularly as many are looking to increase efficiency, will increase diversity of supply, and will lower household bills.

ClimateTech for the masses: ClimateTech firms are disproportionately exposed to geography, meaning founders need to be close to the hills, rivers and beaches of the UK. This leads to high-skilled jobs across the country; from the countryside to seaside towns; cities to the middle of nowhere.

Advanced Manufacturing: The UK has a great opportunity to be home to the low carbon advanced manufacturing sector, with a £1.6bn low carbon Materials & Packaging sector employing over 1,000 people in the UK. The Industrial Strategy presents an opportunity to set this sector up to succeed and ensure that the UK is home to many of the materials of the low carbon economy.



Figure 1, Value of the ClimateTech Index over time



Figure 2, Exits by Index Firms by Year



Figure 3, Split of Key Metrics between London and Rest of UK

Warning Lights

Firm failures are increasing: The biggest warning light on the Government's dashboard, however, is that 2024 saw a dramatic rise in the number of the UK's most valuable ClimateTech startups failing. Before last year, the most deadly years for firms in the ClimateTech Index had been when sixteen firms failed in 2019 (coinciding with the Brexit deal), and seventeen in 2023. In 2024, however, 38 ClimateTech startups failed. In the 2024 ClimateTech Index, 10% (£1.9bn) of the funds raised were lost in firms that have now failed.

Fundraising and grants are down overall: Between 2023 and 2024, the funds raised annually by firms in the 2024 ClimateTech Index halved. Similarly, between 2023 and 2024, the value of grants received by startups in our ClimateTech Index more than halved. For both fundraising and grants, there is inevitably a lag in the data. Correcting for the lag in data, which could result in the final figure for funds raised and grants received increasing significantly, it is still very likely that both remain down.

There has been a significant drop in large fundraisings: The drop in year on year fundraising between 2023 and 2024 was the consequence of a dramatic decrease in the number of megarounds (over £100m) from six in 2023 to only one in 2024, and a similar drop in the number of large rounds (over £50m) from fourteen in 2023 to four in 2024.

The late stage Valley of Death remains prominent: Last year we highlighted the visible dip in the number of firms struggling to raise a Series B fundraising round and this year's data continues the trend. 88% of firms in the Index have raised a Series A, with only a third of these firms going on to raise another round. Once they do, however, half go on to raise a further round, reinforcing the fact that breaking through the Series A-B ceiling is incredibly hard. This is the stage that many startups commercialise their products at scale.



Figure 4, Failed Firms over time, including funds raised by firms that failed that year



Figure 5, Funds Raised by the ClimateTech Index over time



Figure 6, Grants Received by the ClimateTech Index over time



Figure 7, Share of firms that progress to named funding round

Deepdives

The Top 25

The top 25 best funded ClimateTechs in the UK are the crème de la crème of the innovative low carbon economy. They constitute 41% of the entire funds raised, over a third of the total value, and a fifth of the total employees of firms in the sector at the end of 2024. Fifteen of the top funded 25 firms are in the energy sector, with transport the next highest with four. At the end of 2024, four of the top 25 firms had exited, and one had failed.

There are three new entrants into the top 2025 list in the 2024 Index compared to last year's Index. These are:

- Energy storage startup Highview Power, which is promoted into the top 25 after a £300m debt and equity financing round in 2024.
- Vertical farming startup Growup Group, whose £38m equity fundraise in 2024 brings them into the top 25.
- Greenhouse gas removal pioneer Storegga, which raised £65.5m in equity financing in 2024 to join the top 25 best funded ClimateTechs.



Figure 8, the top 25 best funded ClimateTechs in the 2024 Index

As captured in the previous section, the 2024 Index has seen a significant fall in the number of high value fundraising events, and inevitably this correlates with fewer of the top 25 firms raising capital in 2024. Whilst 10 of the top 25 best funded ClimateTechs raised capital in 2023, for a total of £2.5bn, in 2024, only six raised, for a total of £460m. Consequently, whilst the top 25 best funded ClimateTech constituted 57% of the total funds raised in 2023, they made up 22% of the total funds raised in 2024.

Generously, this could be seen as an inevitable part of a maturing market, with the larger firms taking time to spend the larger tickets they raised over the last few years. But this could overstate the resilience of rapidly scaling businesses, many of whom are developing hardware. It also suggests that the "winners" of UK ClimateTech have already emerged. In contrast, we would like to see more churn in the top 25 best funded ClimateTechs, with new challengers emerging having successfully raised large rounds. Indeed, the fact that only three new firms joined the top 25 in 2024 is another symptom of the valley of death, and just how hard it is for ClimateTechs to raise the large tickets required to scale.

There are 36 startups in 2024 ClimateTech Index who enter the Index having raised 100% of their funding in 2024. These include startups at the vanguard of sustainable compute, ensuring that the rise of artificial intelligence doesn't scupper net zero; to startups using AI to design the sustainable materials of

The 2024 Intake

tomorrow. Below, we've profiled a few:

Watergate

watergate®

Watergate believes that the UK is sleepwalking into a water crisis. By 2030, demand for water could outstrip supply in parts of the country. Every day, 3 billion litres are lost to leaks — 1 billion of those within homes and businesses. People have very little visibility over their water use, and water simply isn't valued or managed like other utilities. The result is soaring waste, high bills, and avoidable property damage from leaks.

Watergate is helping the UK take control of its water use. They combine smart hardware, powerful software, and simple user experiences to detect leaks, reduce consumption, and prevent water damage. Their core product, Sonic, is a smart valve that detects leaks and shuts off water automatically. It works with their mobile app (for households) and analytics dashboard (for businesses), giving real-time visibility and control.

The results speak for themselves: average water savings of 26.8% for homes and up to 68% for businesses, plus measurable cuts in carbon emissions. And they're just getting started — they're working with water companies, landlords, insurers, and property managers to scale impact.

Watergate would like to see a clear national commitment from the Government to smart water management — backed by incentives, not just targets. That means:

- Including leak prevention and water efficiency in new builds and retrofit funding schemes (e.g. boiler upgrade, property resilience). The Joint Code of Practice for Escape of Water (driven by insurers) in the construction space is a good model to follow.
- Encouraging water companies to support adoption of smart leak solutions through the price review process (PR24 and beyond).
- Backing public awareness campaigns to shift how water is valued like we've seen with energy.
- Supporting innovation funding for scale-ups, not just early-stage R&D.

Ponterra

PONTERRA

<u>Ponterra</u> tackles the twin crises of deforestation and land degradation. The world has lost over 35% of its forests, and we are seeing widespread biodiversity collapse, with a 70% decline in species since 1970. Degraded lands now affect 3.2bn people across the planet. Ponterra is restoring these degraded landscapes, often former forests now used for low-productivity cattle ranching, by converting them into biodiverse, resilient ecosystems.

They do this through partnering with the people on the ground. For instance, Ponterra leases degraded land rather than buying it, allowing farmers to keep ownership and benefit financially through lease income, revenue-sharing from carbon credits, wages, and community investments. On-site, they plant more than 75 native tree species, aiming to restore natural habitats and foster ecosystem resilience. Ponterra also leverages global carbon markets to supply high integrity carbon and biodiversity credits.

From nurseries and seed banks to monitoring and local employment, Ponterra delivers end-to-end project management with over 100 jobs created in 2024 and 300 projected in 2025. Their flagship ARC 10,000 hectare project in Panama is backed by Microsoft, Rubicon Carbon, Carbon Streaming, and others, with upfront investment secured in exchange for 3.24 Mt of removal credits over 30 years.

To scale nature restoration globally, Ponterra believes that the UK Government must advance its work to support international carbon and nature markets, working with international partners to maximise the effectiveness of projects.

Molyon

Molyon

Molyon is building next generation lithium-sulfur batteries which deliver high energy density compared to current lithium-ion batteries on the market. The company was founded to improve battery performance and solve key issues and challenges around weight-critical applications in batteries. Lithium-ion batteries are produced using critical metals which are mined in concentrated geographies with questionable ethics. Lithium-sulfur batteries are higher energy per weight and can provide the performance to solve challenges like drone flight time and EV range anxiety, whilst using more abundant materials like sulfur for more supply chain resilience. Short lithium-sulfur battery life due to polysulfide shuttling has previously plagued lithium-sulfur batteries from commercialisation, but Molyon has solved this problem with their new cathode technology.

Molyon's started from a materials breakthrough at the University of Cambridge. On the back of 15 years of research, a novel material was discovered to show exceptional properties as a host for sulfur in the cathode. The company has raised its first funding round of \$4.8m from IQ Capital and Plural, including participants from Cambridge Enterprise, Parkwalk Advisors, and prominent angel investors. The company has built its pilot facilities in Cambridge to scale up the cathode innovation and battery technology. Their mission is to provide a sustainable step change in battery solutions.

Creating deeptech technologies which are critical to our low carbon economy need to be supported. The UK needs to foster scale up by providing the infrastructure to scale solutions from the lab to industry, and this is where the Government can provide meaningful support to innovations which can bring GDP level impact.

Polytag



<u>Polytag</u> is solving the single-use plastics problem. Today, recycling is more accurately described as down-cycling: plastic packaging and goods are crushed and pelletised to become drain pipes or park benches. Plastic is not truly recycled to become a second-generation version of what it once was.

Polytag's technology tags and traces plastic waste at barcode level to measure what actually makes it to the recycling centre. They've also combined this data with near-infrared spectroscopy sorting to create 'pure' bales of high-quality plastics. The potential for this technology to truly enable a circular economy for plastics is here now.

We are a GS1 approved partner and believe that adoption of global standards is key to enabling the circular economy. Standardisation ensures interoperability, transparency, and scalability — critical ingredients for systemic change.

Polytag specialises in two tag solutions:

- QR codes powered by GS1, also known as digital links, which provide supply chain transparency and support brands with digital product passports, direct-to-consumer marketing, and e-labels for rewards for recycling, instructions for disposal, and more.
- Invisible UV Data Matrix tags that fluoresce in recycling centres and are detected by our Polytag units so that brands can stop guessing and start knowing if their plastic is actually getting recycled, at barcode level.

Polytag recognises that government legislation such as Extended Producer Responsibility and Recycling Assessment Methodology is evolving, but the UK Government is yet to crystalise how 'eco-modulation' will work for businesses. This is effectively how brands will get rebates or breaks in the Extended Producer Responsibility (EPR) tax for better recyclability, customer communication, or even if they can prove how much of a specific format is being recycled. This is critical in incentivising businesses to embrace best practice, and harness tech like Polytag's to improve compliance and, more importantly, maximise environmental outcomes.

Nattergal



<u>Nattergal</u> is addressing the severe decline in biodiversity and widespread ecological degradation. The UK has seen roughly a 50 % decline in wildlife since the 1970s, one of the worst rates in the G7, and globally, much of the land is now degraded or over-manicured farmland. Their goal is to restore functioning, biodiverse ecosystems at scale, helping meet both nature recovery targets (such as "30 % by 2030") and climate goals — all while delivering measurable social and financial returns.

Nattergal is rewilding farmed land at landscape scale. They acquire or manage ecologically degraded sites, such as Boothby Wildland in Lincolnshire and the High Fen Wildland in Norfolk and use Knepp-inspired techniques, including reintroducing historic field boundaries, blocking drains, and spreading green hay to re-establish native habitats. Nattergal restores biodiversity, carbon sequestration, water regulation, soil health, flood mitigation, and weaves in revenue generation via biodiversity net-gain credits and nature-based finance. They also partner with Oxford, Gloucestershire CCRI, and DEFRA to

Adia

capture social impact, biodiversity data, and stakeholder engagement best practices, leading to published frameworks for scalable landscape restoration.

Nattergal's approach shows that innovation can be a catalyst for nature-based solutions as part of a growing low carbon economy. The ongoing Government consultation on nature markets is a critical next step in maximising the potential for the UK to be the green finance capital of the world.

Adia Thermal

Home heating is the UK's single largest source of domestic emissions, and yet more than half of all replacements still happen under distress, when a gas boiler breaks. This segment is virtually unreachable with current retrofit models. The dominant certification and subsidy systems (like MCS and BUS) are designed for ideal, planned installs. They require extensive up-front surveys, bespoke system designs, and perfect homes, leaving urgent replacements in older, imperfect buildings stuck with another gas boiler. As a result, heat pump adoption is growing too slowly to meet climate targets, and the opportunity to decarbonise one of the highest-emitting home segments is being lost in real time.

Adia is reinventing how heat pumps are installed, using a fusion of smart hardware and interpretable machine learning to enable plug-and-play heat pumps in the messy, real-world homes that make up the bulk of the market. Their product, Adia Thermal, combines:

- An ML-powered digital twin of the heating system that auto-detects flow rates, heat loss, and upgrade needs without manual surveys.
- A hardware retrofit kit that slots into the existing wet heating loop, enabling precision control without changing pipework or radiators.
- A predictive controls platform that continuously adapts system behaviour to balance energy use, comfort, and grid flexibility, even in dynamic tariff environments.

This system transforms heat pump installation from a 12-week, engineer-heavy process into a 3-day upgrade that a typical boiler installer can complete. It enables room-by-room zoning, automated commissioning, and performance optimisation at up to €10k lower cost and 30% less energy consumption compared to traditional installs. Adia's approach flips the retrofit journey: install the pump first, use live performance data to guide upgrades later, and make distressed replacements heat-pump eligible without compromising comfort.

Adia believes that the UK Government should introduce an Innovation Sandbox for heating, designed to support companies developing next-generation installation models. Specifically, they would like to see:

- A path to BUS grant eligibility for outcome-driven innovations, even if they don't follow traditional MCS inputs like room-by-room surveys.
- A sandbox scheme within or outside MCS that allows companies to pilot alternative approaches under regulatory oversight, with performance data (not paperwork) as the compliance standard.
- Recognition that speed, scalability, and ease of install are not shortcuts; they are essential for decarbonising the real 50% of homes that won't wait for an idealised retrofit.

The current framework penalises innovation by design. A shift to outcome-based validation would unlock faster adoption, greater diversity of solutions, and better consumer experiences, while accelerating emissions reductions exactly where they're needed most.

Sector

The energy sector remains the key ClimateTech sector in the UK, with a third of all firms in the top 1,000 best funded ClimateTechs innovating to decarbonise energy production and use. These firms have raised 48% of all funds raised by firms in the ClimateTech Index, and constitute over half of the entire value. These proportions are identical to last year. The energy sector now accounts for 42% of all jobs in the Index, up from 37% in the 2024 Index.

Whilst the lag in the data needs to be accounted for, at this stage only five ClimateTech sectors saw increases in year on year funds raised between 2023 and 2024:

- Food & Agtech (19% increase)
- Greenhouse Gas Removal (219%)
- Materials & Packaging (49%)
- Nature-based Solutions (42%)
- Water (11%)

The biggest year on year decreases between 2023 and 2024 in funding were seen in the Waste & Circular Economy, which saw a 68% drop, the Built Environment (67% drop), and the energy sector (64% reduction).



Figure 10, count of ClimateTech Index firms by sector



Figure 11, funds raised by ClimateTech Index firms by sector

Detailed Breakdown

Sector	# Firms	Funds Raised	2024 Value	Grants Received	# of Jobs	Female Founded	Solely Female Founded	Uni Spinouts	Exits	Failures
Built Environment	95	£911m	£3.2bn	£70m	2,000	15	2	8	9	10
Business & Professional Services	47	£536m	£507m	£12m	1,200	8	1	4	6	8
Consumer Goods	23	£169m	£1.6bn	£9m	500	8	5	3	2	3
Energy	334	£9.2bn	£21.8bn	£512m	11,200	42	7	35	43	77
Financial Services	16	£455m	£640m	£2m	700	3	0	1	2	3
Food & Agtech	81	£1.2bn	£1.6bn	£82m	1,600	20	5	12	2	5
GHG Accounting, Offset & Verification	44	£424m	£772m	£6m	1,000	11	3	1	2	1
GHG Removal	16	£488m	£1.2bn	£35m	500	2	0	4	0	0
Industrial Decarbonisation	40	£396m	£641m	£64m	500	8	1	15	3	8
Materials & Packaging	69	£795m	£1.6bn	£70m	1,000	21	5	16	3	5
Nature-based Solutions	16	£165m	£371m	£5m	500	5	1	1	1	0
Transport	139	£3.5bn	£4.8bn	£322m	4,000	20	4	12	21	10
Waste & Circular Economy	62	£726m	£3.2bn	£37m	2,000	9	2	7	9	7
Water	18	£143m	£241m	£6.8m	200	4	0	2	2	1

Geography

London continues to be the hub for ClimateTech in the UK, with 36% of startups headquartered in the Capital but, just like in the 2024 Index, climate innovation is happening all across the country. In the 2025 ClimateTech Index, there are now **eight unicorn regions** that are home to startups within the Index that were collectively valued at over £1bn at the end of 2024, three more than in the 2024 Index: London, South East England, the East of England, North West England, South West England, Scotland, Wales, and Yorkshire and The Humber.

Over the last year, we've seen the first ClimateTech startups relocate their HQ abroad, with three startups still active but based out of the USA.

Year on year, London has increased its share of the overall funds raised by firms in the Index by 2%, and its share of jobs increased by 4%. Whilst Wales increased its share of the value of the Index by 2%, the East of England has seen its share of value increase by 10% to now constitute 20% of the entire value of the Index.

London is home to 44% of the female founded ClimateTechs in the Index, with 11% headquartered in Scotland and another 11% in the South West of England.



Figure 11, count of ClimateTech Index firms by HQ region



Figure 12, funds raised by ClimateTech Index firms by HQ region

Scotland is a hub for energy technology startups, with 50% of its 91 firms involved in the sector. The Scottish energy ClimateTech sector included in the 2025 Index is worth £734m and employs nearly 500 people. From cutting edge energy generation startups like Edinburgh-based Orbital Marine Power, which has raised over £50m alone, to Aberdeen-HQ'd subsea power infrastructure specialists Verlume; Inverness-based wave energy firm AWS Ocean Energy; to Hamilton HQ'd energy storage firm ILI Group — Scotland is a hive of low-carbon energy activity. It is therefore appropriate that the state-owned new Great British Energy entity will be based in Aberdeen.

Meanwhile, **Yorkshire and The Humber** is home to a thriving ClimateTech hardware sector. Half of the ClimateTech Index firms based in the region are developing hardware. In 2024 the hardware sector in Yorkshire was valued at over £750m, the fourth most valuable region for solely hardware startups in the whole of the UK. More than 360 people work for hardware firms in Yorkshire. The sector includes a wide range of firms — from Hull-based hydrogen electrolyser firm HiiROC, to Sheffield-based low carbon vehicle component manufacturer Magnomatics; Rotherham HQ'd battery producer Cumulus Energy Storage; andYork-based "eco-valve" producer Salvalco.

Finally, the **North West of England** is a hub for manufacturing ClimateTechs, with 40% of firms making products, generating fuel, or producing energy. Combined, this sub-sector has raised £213m and was valued at £264m in 2024. More than 280 people are employed across the region in ClimateTech manufacturing. Key manufacturing ClimateTechs in the Index based in the North West of England include Preston based upcycled construction hardcore startup AluSiD; Wilmslow HQ'd plant based food producer Arley Foods; Manchester HQ'd fungi materials startup Really Clever; and Stockport-based seaweed farmer Seafields.

University Spinouts

There are 121 ClimateTech Index startups that spun out of universities, with the University of Cambridge the most prolific, with 20 spinouts. The University of Oxford is hot on its heels, however, with 18. Spinouts from Oxford have raised the most cash of any alumnus, however, at £461m, compared to the University of Cambridge at £298m raised by spinouts. Cambridge was actually beaten to third place by spinouts from Imperial College London, who have raised £383m. Oxford University spinouts are the most successful in securing grant funding, having received a combined £30m.



Figure 13, number of ClimateTech Index spinouts founded and funds raised by origin University

Detailed Breakdown

Region	# Firms	Funds Raised	2024 Value	Grants Received	# of Jobs	Female Founded	Solely Female Founded	Uni Spinouts	Exits	Failures
East Midlands	33	£496m	£560m	£39m	500	3	0	6	6	8
East of England	96	£1.6bn	£8.4bn	£90m	2,200	16	2	17	8	6
London	357	£8.9bn	19.7bn	£301m	11,000	78	21	25	32	34
North East England	33	£247m	£306m	£51m	500	5	0	4	7	6
North West England	60	£875m	£1.9bn	£66m	1,700	10	0	8	5	15
Northern Ireland	11	£53m	£40m	£21m	200	2	0	2	2	1
Scotland	90	£1.3bn	£1.6bn	£197m	1,300	20	3	12	12	17
South East England	123	£3bn	£3.6bn	£211m	3,600	11	3	29	13	20
South West England	82	£1.5bn	£2.5bn	£109m	2,900	18	5	7	8	12
Wales	24	£135m	£1.5bn	£49m	600	6	1	1	1	5
West Midlands	40	£467m	£802m	£41m	1,300	4	1	1	1	7
Yorkshire & The Humber	51	£728m	£1.1bn	£57m	900	3	0	9	10	8

Female Founders

Female founded firms in the ClimateTech Index comprise 18% of the firms in the Index as a whole, which is above the industry average for female founded firms (14%). However, only 4% of startups in the 2024 ClimateTech Index were founded by solely female founder teams, which is well below the industry average (14%).⁴

The share of funds raised by startups with at least one female founder is slightly higher than the industry average, with 9% compared to 6-7% across broader industries. However, the general pattern identified in Startup Coalition's "Girls Just Wanna Have Funding" report from May 2025 persists: the further up the fundraising ladder, the harder it becomes for women to raise. For instance, just over half of all solely male-founded teams have gone on to raise over £10m, but only a quarter of startups with at least one female founder have done so. Only a fifth of solely female founded ClimateTechs in the data have raised more than £10m.



Figure 14, share of key metrics between mixed/male founder teams

⁴ https://startupcoalition.io/u/2025/05/FTUF_Female-Founders_FINAL-2.pdf

Hardware

The "technology type" category assigned to each firm in the Index was based on the judgement of Startup Coalition using publicly available information, such as the firms' websites and articles about the activities of the startups. The four main "technologies" developed by firms in the Index are:

- Hardware: firms producing tools, machinery and other durable equipment.
- Manufacturing: firms engaged in the production of physical goods that are not tools, machinery and other durable equipment, such as raw materials, chemicals, textiles or consumer goods. Manufacturing also includes firms engaged in agricultural production, energy generation, and carbon sequestration.
- Services: firms engaged in the provision of activities to support the delivery, improvement of, or advice on a company need. Importantly, "services" are provided by a company or human being, and not primarily via the provision of software.
- Software: firms offering computer-based programmes or platforms as their primary activity. This includes "software-as-a services" (SaaS).

Necessarily, many startups in the Index bridge multiple technology types, but for the purposes of analysis their primary technology type was assigned and the breakdown of the Index is shown in Figure 15, alongside the relative share of key metrics.



Figure 15, share of key metrics between mixed/male founder teams

Predictably, startups engaged primarily in manufacturing or in building hardware have received disproportionately more funds and grants than servicing and software. The same is true of debt financing, though this is a smaller overall share than total funds raised. These sectors are crucial to

decarbonising the economy, as we can only go so far on the road to net zero without displacing fossil fuelled physical things.

Startups in the Hardware and Manufacturing sectors require patient investment to sustain them through the capital intensive stage of scaling, which is the point at which the "valley of death" or "first of a kind" funding challenge is most pronounced. This is shown in the data as startups producing hardware have a higher share of firms failing at Series A than startups not producing hardware. Hardware firms also die faster than other ClimateTechs at the Series A stage, on average lasting 47 months before they fail, compared to 51 for software firms.

This is not a challenge unique to the UK, but one common across the world. Indeed, CTVC's June 2025 climate tech investor pulse of international ClimateTech investors found that Series B/C was seen as the most vulnerable stage for ClimateTech firms. This aligned with 51% of investor respondents saying that first commercial-stage facilities were the toughest development stage to finance in 2025–2026.⁵ However, the single biggest concern for the ClimateTech ecosystem worldwide in 2025 was policy uncertainty.

⁵ https://www.ctvc.co/2025-climate-tech-investor-pulse-check/?ref=ctvc-by-sightline-climate-newsletter

Lessons for Policymakers

In last year's ClimateTech Index, we outlined that the Government should do three key things to unlock the opportunity of ClimateTech in the UK. These were necessarily designed to be high level, and Startup Coalition has a catalogue of specific policy asks which can be found in our other reports, including our December 2024 report in partnership with the ClimateTech Policy Coalition.⁶ These three asks were: to celebrate success; strive for policy consistency; and to combat the valley of death at the scaling stage. This year, however, we have framed our calls to action specifically for the new Labour Government, which is yet to properly articulate the role of innovation in its vision for sustainable economic growth.

Lesson One: ClimateTech is a Catalyst for Sustainable Economic Growth

This Index demonstrates that across the country, including in Britain's industrial heartlands and in seaside towns, there are entrepreneurs designing products and services that will power the net zero economy. From the nearly 16,000 jobs based outside of London, to the fact that eight of the UK's regions are now how to ClimateTech ecosystems valued at over £1bn each: this is a sector that a Labour Government committed to growth should be celebrating, sustaining, and supporting.

We've also seen elsewhere that government grant support for ClimateTechs is a reliable catalyst for follow-on funding. Earlier this year, Startup Coalition analysed the success of the Net Zero Innovation Portfolio, a £1.3bn pot of cash dedicated to funding ClimateTech innovation, and found that for every £1 of taxpayer money granted to startups under the scheme, £2.40 was secured in follow-on funding.

The Labour Government's first, and most important, mission for Government is to obtain the highest sustained economic growth in the G7 – the ClimateTech economy is a fundamental enabler of this.

Lesson Two: ClimateTech is a Critical Enabler of the Clean Power 2030 Mission

The second mission in Labour's 2024 General Election Manifesto was to "Make Britain a clean energy Superpower", including by cutting bills, creating jobs, and delivering zero-carbon electricity by 2030. This is a formidable challenge, and has been matched by the UK's enhanced National Determined Contribution to GHG emission reduction announced at COP29, which is now among the most ambitious in the world.

⁶ https://startupcoalition.io/news/the-climatetech-policy-coalitions-2024-report/

This ambition is laudable, and is a clear signal to the market that the Government wants to move quickly. Whilst we have seen fantastic progress on planning and grid reform, and the most generous renewable energy auction ever, in the first year under this Government we have not seen a concerted focus on the role of innovation in achieving the Clean Power 2030 mission. Indeed, it remains unclear how the new nationally owned Great British Energy entity will interact with industry, let alone innovators. Further, the National Wealth Fund is yet to meaningfully invest in new clean energy technology since the election.

On the one hand, to decarbonise our energy grid will require the technologies included in this Index, including transformative hardware being developed to increase grid efficiency, generate abundant renewable energy, and improve the efficiency of downstream use; as well as software to modernise the grid, introduce virtual power plans to maximise flexibility in the sector, and customer facing interfaces that empower decision making based on real-time usage data.

But on the other hand, if the Government is to achieve the Clean Power 2030 mission *and* its goal of the highest sustained growth in the G7, it must double down in its support for energy entrepreneurs. As stated above, Scotland is a hub for clean energy entrepreneurship, and locating the HQ of GB Energy in Aberdeen offers an enticing opportunity to maximise the potential of innovators based there. The energy ClimateTech sector is a £22bn asset that can supercharge the Government's goals.

Lesson Three: Identify Systematic Barriers to Net Zero Innovation

A consistent message from the Government since its election in July 2024, is that the fiscal headroom is tight, made more challenging still by the geopolitical and macroeconomic headwinds of the last year. To this end, it is important to recognise that grant funding is only one tool in the arsenal of Governments to support innovators, and that many don't, and won't, ever require this support. Indeed, 42% of startups in the 2024 ClimateTech Index have not received a penny in public grant funding, and yet have still gone on to raise a combined £7bn. Moreover, in an era of pinched purse strings, our final lesson for the Labour Government is that there remains significant opportunity to scale ClimateTech innovation in the UK through non-cost based policy levers.

In the first instance, this includes holding all regulators and arms-length bodies accountable for their accessibility and interactivity with entrepreneurs. How easy is it to gain authorisation in regulated sectors across the economy? How open are regulators to innovation? Do they have dedicated innovation routes, such as sandboxes? Where regulated sectors experience friction, the new Regulatory Innovation Office (RIO) is a superb tool to unlock opportunity and growth: we have heard first hand from cultivated meat startups that RIO's engineering biology sandbox has been a gamechanger for the sector.

Secondly, this means returning to first principles with taxpayer-funded net zero subsidies. The experience of the Boiler Upgrade Scheme (BUS) is a case in point, with the Government recently consulting on expanding the BUS to include more technologies and innovative funding mechanisms. We would like to see subsidies technology-agnostic and outcomes-oriented from the outset. It is far more efficient to introduce clear eligibility criteria, framed around outcomes, and then maximise the number of technologies that are subsidised, instead of prescribing a specific technology.

And finally, where are there opportunities to refresh regulation and legislation to better align with the goal of decarbonisation and build net zero markets. From unlocking data to empower consumers, to incentivising greenhouse gas removal through the emissions trading scheme. From refreshing outdated rules around testing drones, to updating post-Brexit rules around novel food authorisation. To maximise the chance of obtaining green growth, the Government must get entrepreneurial itself, and ensure that the Net Zero economy can be unleashed, and not hampered by fossil-fuel era red tape, powered by ClimateTech entrepreneurs.

Methodology

This report was produced using data from <u>Beauhurst</u>. The 1,000 featured firms are the ClimateTechs that have raised the most private funding. We used a range of criteria to identify eligible firms, including descriptions of firms' primary activities and Beauhurst's proprietary environmental "signals". Crucially, Startup Coalition defines "ClimateTechs" as firms who are engaged in activities which mitigate GHG emissions or impact to nature and the environment, adapt to the impacts of climate change, and know more about climate change, per PwC's foundational definition.⁷

Data is accurate up to 31st December 2024 and is limited to what is available through the Beauhurst platform. The valuation metric was taken from the "post-money valuation" within a Beauhurst fundraising event.

The number of employees recorded for each firm was the minimum number in the Beauhurst "number of employees" metric. Where the "average" is referred to in this report, this is the median for grants received and the value of a firm to account for the large range in the dataset, and the mean for grant funding received and employees.

The different financing categories were pulled directly from Beauhurst but where there is reference to "debt financing" above, this includes a combination of fundraising that was solely "debt", "debt and equity", and debt financing through the Coronavirus Business Interruption Loan Scheme (CBILS).

List of sectors:

- Built Environment
- Business & Professional Services
- Consumer Goods
- Energy
- Financial Services
- Food & Agtech
- GHG Accounting, Offset & Verification
- GHG Removal
- Industrial Decarbonisation
- Materials & Packaging
- Nature-based Solutions
- Transport
- Waste & the Circular Economy
- Water

The value of a firm was not tracked after its "death" or "exit" date within Beauhurst. If there was a monetary value associated with the exit event, this was recorded as the final "value" in the Index. The value of a firm that "died" was recorded as the latest post-money valuation, and the latest year that the value was recorded for was the last year where the firm was tracked for at least six months (e.g. if the firm died in April 2024, then the last value would be recorded as 2023, but if it died in August 2024, then

⁷ https://www.pwc.com/gx/en/services/sustainability/publications/state-of-climate-tech.html

the last value would be recorded as 2024). The "death date" of a firm refers to either the date of company dissolution, if this is available, or if not, it refers to the date that Beauhurst ceased tracking the firm.

There are differences between the specific firms in the underlying cohorts of the 2024 and 2025 ClimateTech Indexes. This is for several reasons:

- There are new startups that have been founded in 2024 and raised sufficient funding to join the top 1,000 best funded ClimateTechs.
- There are startups founded earlier than 2024 but have only now joined the top 1,000 best funded ClimateTechs due to a fundraising event in 2024, or due to the data from Beauhurst updating from previous years that mean they have now joined the top 1,000 best funded ClimateTechs.
- There are startups that have pivoted into ClimateTech having previously not primarily focused their product or service on decarbonising the economy or adapting to climate change.
- There are startups that were missed off of last year's ClimateTech Index as they were not known to Startup Coalition.

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