Green Fintech 2.0

Next Generation Climate and Environmental
Analytics to Accelerate Green Finance

CGFI
UK Centre for
Greening Finance
& Investment

Key takeaways

Regulatory requirements and maturing data capabilities of financial institutions fuel growing demand for ESG data and analytics. Evolutions in climate and environmental data collection, processing and modelling underpin new green fintech solutions.

WE HAVE IDENTIFIED

£632m

of investment in UK-based green fintechs, offering solutions mainly in sustainability reporting and carbon offsetting and trading.

GROWING VC INVESTMENT IN GREEN FINTECH,

collaborative regional clusters and specialist accelerator programmes around the UK are the foundations for further growth

The UK is home to a **vibrant ecosystem** of green fintech businesses, offering solutions mainly in **carbon accounting, sustainability reporting and advisory** and **climate risk management.**

London remains the heart of UK green fintech innovation, hosting

66%

of the companies identified and 80% of the funding raised.

Overview

Foreword

01. Tackling the global climate and biodiversity crises and building a more resilient future will require a deep and structural transformation of our economy. Finance is core to making this happen – not only in terms of mobilising more green and sustainable finance, but also in accelerating the greening of the entire financial system to align with climate and environmental goals.

Credible and transparent analytics, based on robust science, provide the foundation for financial markets to price climate, nature and wider environmental risks effectively and (re)allocate capital accordingly. Recent advances in sensors, artificial intelligence and modelling capabilities significantly accelerate progress. This includes moving beyond a culture of compliance to managing climate-related financial risks, both at the level of the portfolio and the system. Yet there is still more we need to do to ensure data and analytics are better integrated into mainstream financial decision making.

The UK offers the perfect conditions to enable this, as demonstrated by the numerous innovative companies we have analysed for this report. We have a world leading research and science base developing talent all around the country. We host one of the most important global financial hubs. And we

have one of the most progressive green finance policy environments in the world. For example, the UK Centre for Greening Finance and Investment was a direct result from the UK's first Green Finance Strategy, which in turn built on the pioneering work at the Bank of England's Climate Hub. And today we are taking the lead internationally on private sector climate transition plans.

Over the last decade through my role at the Bank of England, in Government and with the UK's Transition Plan Taskforce, it has been a great pleasure and a privilege to help shape the landscape of policy, regulation and practice that has evolved. And in my role at CGFI, it is also clear that a thriving innovation ecosystem of climate data and analytic providers, intermediaries and expertise will be a core enabler in accelerating collective progress. This report is our first attempt to map what the green fintech ecosystem looks like in the UK, with the intention

of catalysing further innovation and investment in line with the speed and scale of the transition required.

Many thanks to my colleagues, Christophe Christiaen and Janak Padhiar, for leading the work, and to all those in the CGFI and broader network that have provided support and insight. We hope you find the report of interest, we would also welcome your feedback as we continue to develop CGFI's activities to support a thriving ecosystem and community of practice.

Matt Scott

Matt Scott, Executive Director,
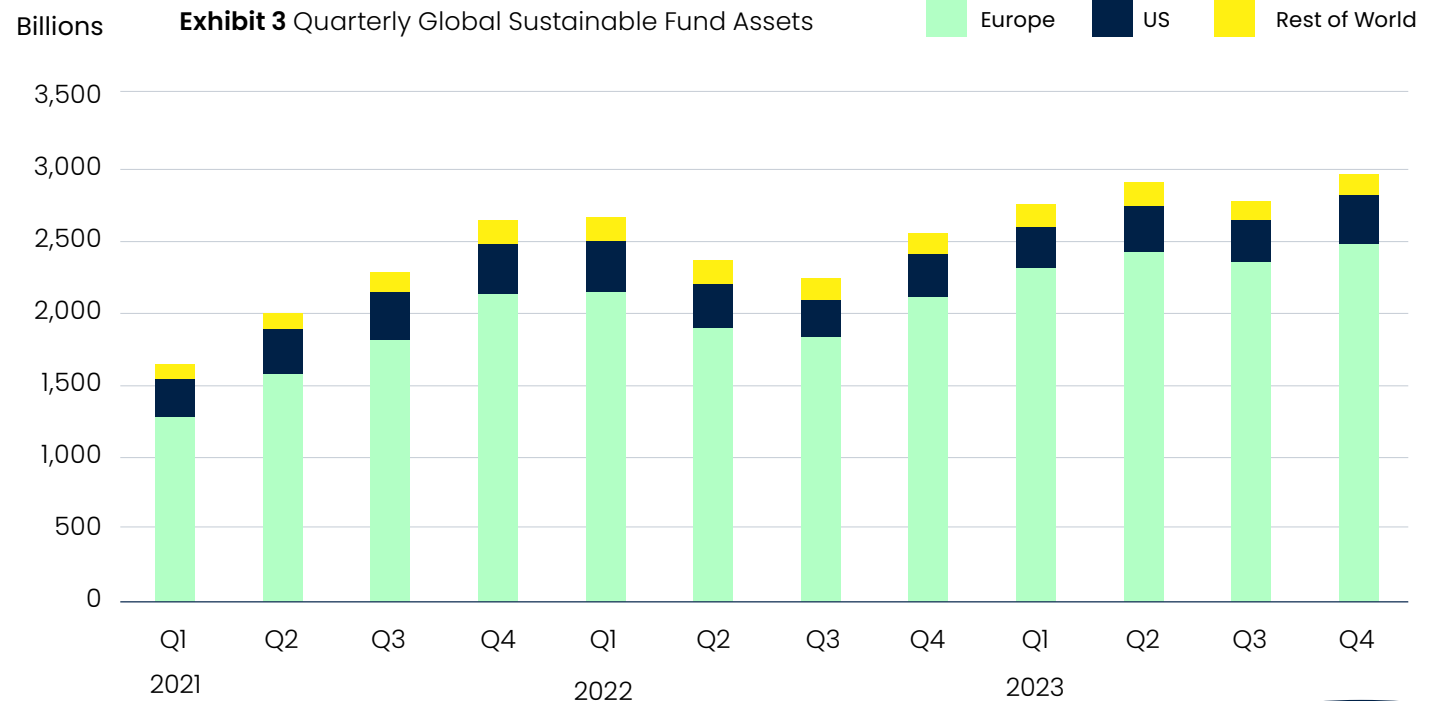UK Centre for Greening Finance and Investment

02.

Green fintech drivers

Evolutions across the demand and supply side of green fintech are setting up the sector for sustainable growth.

Green finance trends

Capital continues to flow into sustainable funds, despite macro-economic headwinds. By the end of 2023 nearly $3 trillion worth of assets were classed as 'sustainable', most of these in Europe[1]. As this market matures regulators are stepping in to create a more level playing field. Sustainability reporting is becoming mandatory for investors and corporates alike, and rules are becoming stricter on what financial products can be classed as 'sustainable'. The US Securities and Exchange Commission is introducing legislation to make climate-related disclosures mandatory for large corporations, following EU and UK regulations. The EU's Taxonomy for Sustainable Activities and Sustainable Finance Disclosure Regulation set out requirements for labelling sustainable funds. In the UK, the Financial Conduct Authority has issued 'anti-greenwashing' rules. All of these will drive demand for more robust and reliable sustainability data.

At the same time, financial institutions' green finance agendas are shifting. To date, demand for environmental (emissions) data was driven by climate change mitigation and net zero targets. But physical risk considerations are rising on the agenda as the financial impacts of climate change are being felt, with record-breaking extreme events and losses[2]. Additionally, nature-related

Exhibit 3 Quarterly Global Sustainable Fund Assets

Billions

Legend: Europe, US, Rest of World

Source: Morningstar Direct. Data as of December 2023.

financial risks are getting more attention, driven by policy commitments from the Kunming-Montreal Global Biodiversity Framework and guidance from the Taskforce for Nature-related Financial Disclosures.

1 Global Sustainable Fund Flows: Q4 2023 in Review; 2023, Morningstar
2 2024 Climate and Catastrophe Insight; 2024, Aon
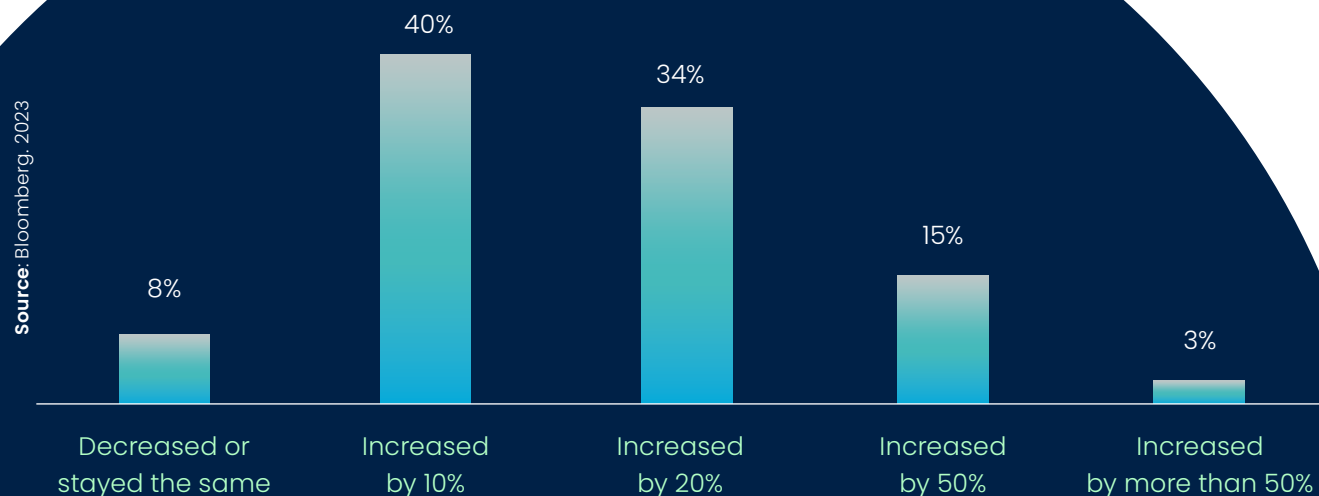
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Increased adoption of ESG data

The adoption of sustainability and environmental, social and governance (ESG) data and services continues to grow. A survey by Bloomberg in 2023 showed that 92% of respondents plan to increase their spending on ESG data, as all agreed ESG data is essential to achieve a competitive advantage or keep pace with their peers. Robust sustainability data is also a prerequisite to deliver on ambitious net zero, climate resilience or nature positive targets and adhere to upcoming regulation and reporting.

In parallel, financial institutions have actively been building in-house sustainability teams with specialist data science or sustainability skills, often attracting researchers with PhDs and backgrounds in climate and environmental sciences. Financial institutions are thus becoming more sophisticated users of ESG information, capable of dealing with more raw, uncertain and complicated datasets, and evolving into a customer base for more scientifically robust analytical solutions.

Large, 'traditional' financial data providers, consultants and intermediaries have anticipated accordingly and have been acquiring stakes in specialist ESG data and analytics providers to bolster their own capabilities and product offerings. Examples include:

- WTW's acquisition of Acclimatise in 2020;

- McKinsey's acquisition of Vivid Economics/Planetrics in 2021;

- Moody's acquisition of Risk Management Solutions in 2023;

- Swiss Re's acquisition of Fathom in 2024.

Compared to the prior year, our overall projected and estimated 2023 ESG spend has:

Source: Bloomberg, 2023

Category	Value
Decreased or stayed the same	8%
Increased by 10%	40%
Increased by 20%	34%
Increased by 50%	15%
Increased by more than 50%	3%

Financial institutions have actively been building in-house sustainability teams with specialist data science or sustainability skills.

07

Advances in data collection

The cost of manufacturing and operating sensors to collect climate and environmental data has declined drastically over the last decade or so, leading to an explosion of observed environmental datasets. Huge volumes of data on the state of our planet are being collected every day from in situ sensors, UAV platforms, and particularly from public and private earth observation satellites. Access to this near real time data is revolutionizing how we monitor and model a wide range of climate and environmental risks and impacts.

In the fields of conservation, ecology and biological science, collecting information on species is becoming more accessible too. Evolutions in acoustic sensor and environmental DNA technologies are transforming how biodiversity data can be collected in the field. Environmental DNA technology samples species DNA from soil, water or air samples, and then applies high-throughput DNA sequencing methods to rapidly detect and differentiate between different species. This is particularly useful to detect biodiversity that remains otherwise 'unseen'.

Advances in data processing and modelling

Advances in artificial intelligence (AI) have enabled large volumes of environmental datasets to be processed at unprecedented speeds and with greater accuracy, thereby enhancing the predictive capabilities of climate models, improving weather forecasting, and enabling more precise detection and classification of land cover changes in remote sensing imagery. Natural language processing models can now sift through vast amounts of unstructured text data (including news articles, scientific papers, corporate sustainability reports, and social media feeds) to identify, categorise, and analyse sustainability-related content. These allow for more efficient tracking of corporate ESG practices, assessment of sustainability trends, and monitoring of public discourse on environmental issues.

Supported by these technologies, climate and ecosystem modeling has evolved significantly. More datasets can be integrated, driving more sophisticated data analysis techniques to better simulate complex environmental systems and their interactions. Improvements to models' spatial and temporal resolutions is enabling a more detailed representation of climate dynamics and ecosystem processes. One scientific field that has matured significantly is that of attribution science. It uses statistical analysis and climate modeling to compare observed weather events with simulations of what the climate would have been like without human impact, quantifying the difference in intensity and likelihood of an extreme weather event. This could underpin , connecting polluters to real world climate impacts.

03.

Green fintech classification

Green Fintech 2.0 leverages 3rd party climate and environmental datasets to complement corporate disclosures. Empowering investors and their sustainability ambitions with independent analysis.
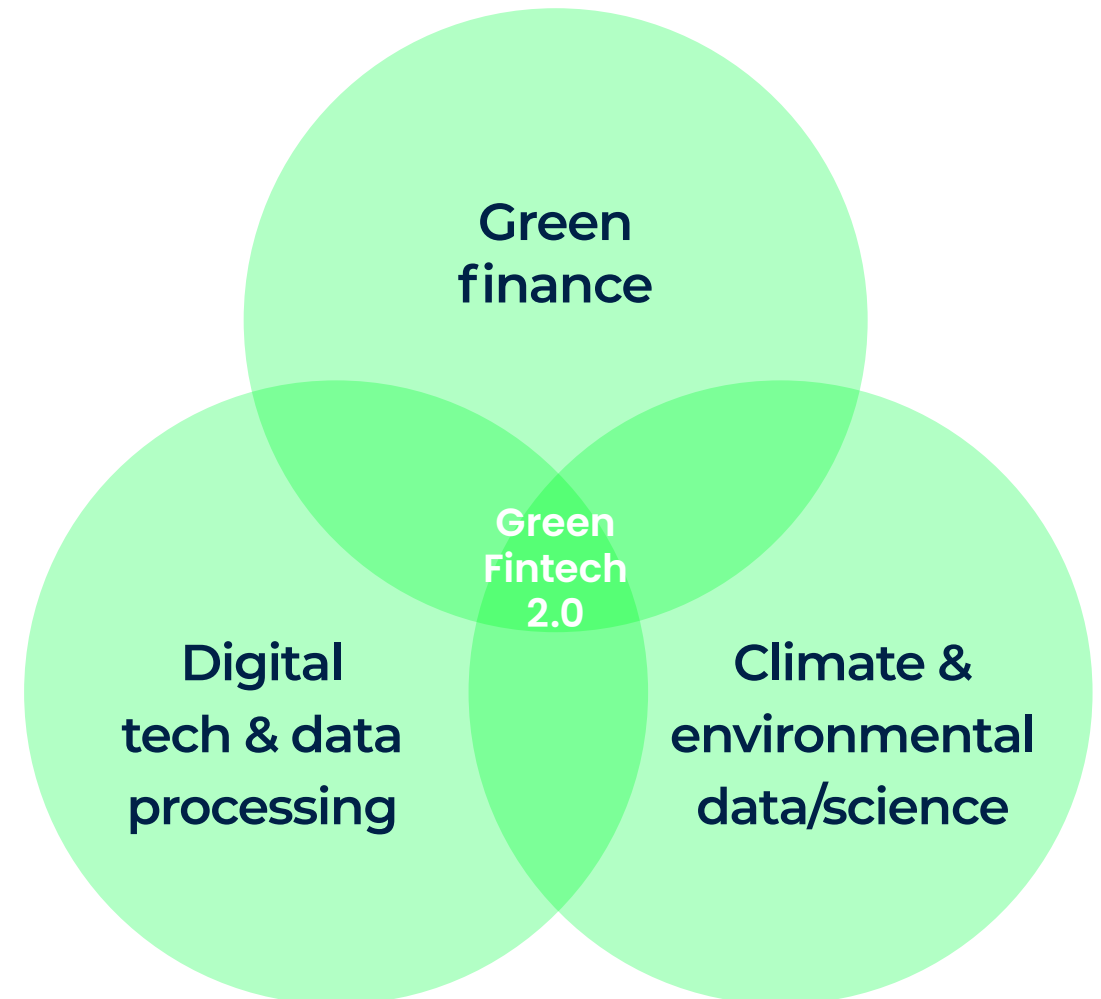
Green fintech

The Green Digital Finance Alliance (GDFA) defines green fintech as "technology-enabled innovations applied to any kind of financial processes and products all while intentionally supporting Sustainable Development Goals or reducing sustainability risks."

For us, green fintech solutions are the products and services that accelerate both 'greening finance' and 'financing green'. This ranges from better informing retail investors about sustainability credentials in funds, to identifying environmental risk signals for institutional investors, to transparent monitoring and reporting in voluntary carbon markets. We're considering 'green' rather than 'climate' fintech to cover the rapid growth in 'nature fintech' as documented by the Nature Tech Collective.

We see a new wave of solutions being developed that leverage advances in digital technologies, data processing and artificial intelligence, as well as climate and environmental science. The next generation of 'green fintech 2.0' solutions integrate a wide range of data and knowledge sources to provide independent assessments of sustainability issues. This is a natural evolution from earlier green fintech solutions offering ESG ratings and analytics based mainly on corporate disclosures.

Green fintech 2.0 solutions integrate a wide range of data and knowledge sources to provide independent assessments of sustainability issues.

Green finance

Green Fintech 2.0

Digital tech & data processing

Climate & environmental data/science

Product categories

For this report we have created a database of UK green fintech companies which we have categorised first in 3 categories from GDFA's Green Fintech Classification. And then in 10 subcategories based on their primary product and service offering.

Digital ESG data and analytics solutions

Solutions for automated sustainability/ESG data collection and analytics for finance, including automated green asset rating and indexing[3].

Subcategories:

- Alternative sustainability data
- Carbon accounting
- Natural capital accounting
- Sustainability ratings

Green digital risk analysis and insurtech

Solutions to measure, manage and minimise physical climate and nature-related risks and help optimise green insurance products and services.[3]

Subcategories:

- Climate risk management
- Nature risk management
- Insurtech

Green regtech solutions

Applications of technology-enabled innovation for regulatory, compliance and reporting requirements implemented by a regulated institution or a financial supervisory authority.[3]

Subcategories:

- Sustainability reporting and advisory

Other green fintech solutions

Climate and environmental analytics solutions for financial institutions, intermediaries or project developers, supporting sustainable financial decision-making across other application and use case areas.

Subcategories:

- Carbon offsetting and trading
- Impact investing

3 Green Fintech Classification (2022), Green Digital Finance Alliance

04.

Green fintech in the UK

The UK is a hotspot for green fintech innovation, powered by an established and high-density venture capital ecosystem, progressive green finance regulations, and a talented ecosystem of entrepreneurs with climate and environmental skills.
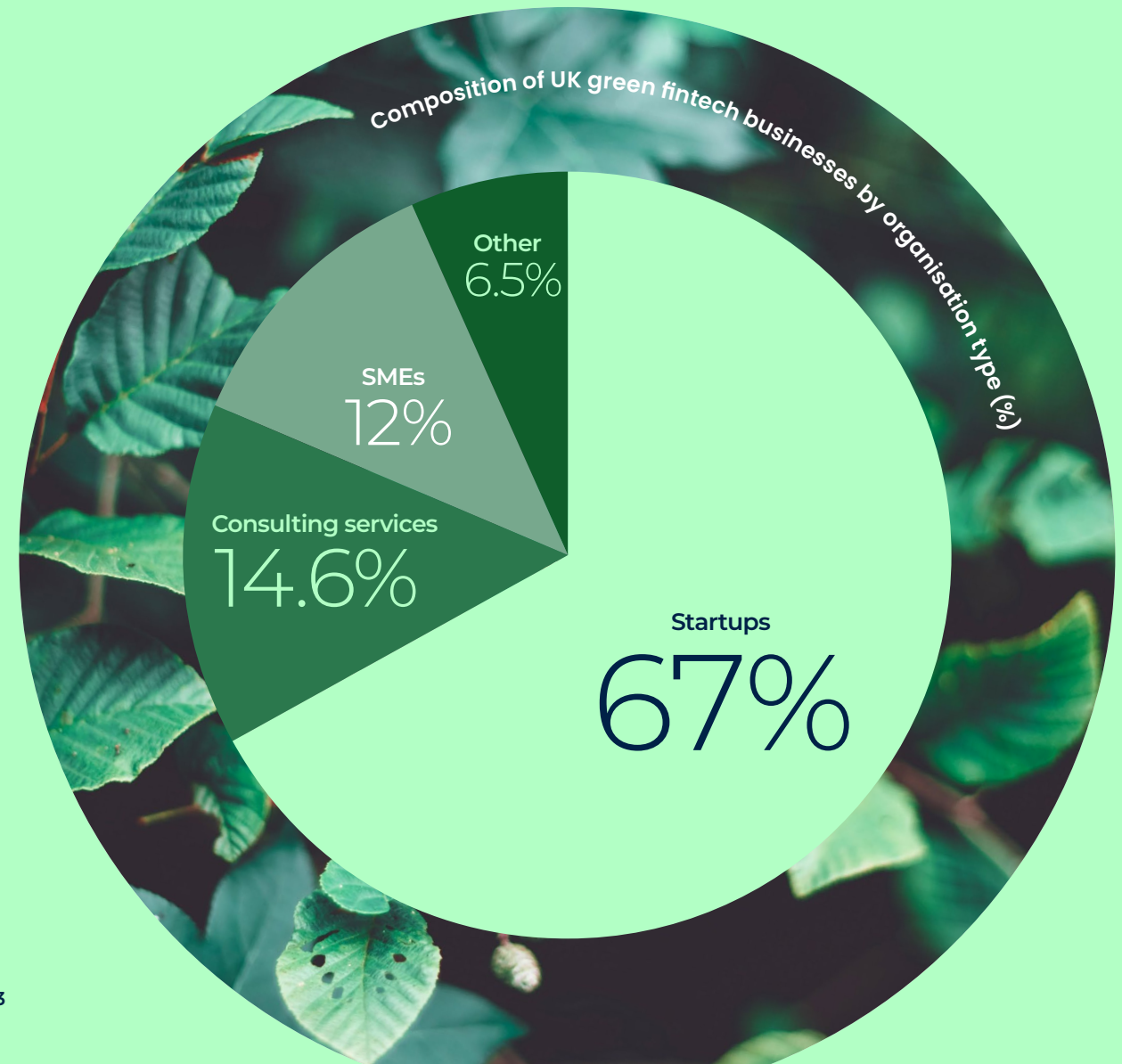
The data

Our Green FinTech database contains 200 UK-based green fintech businesses, with information on 10+ attributes. This includes funding information data from desk research, Pitchbook, Crunchbase, TechCrunch, Dealroom.co and Beauhurst venture capital databases[4].

We have categorised green fintech businesses as: 'Green fintech' (startups), 'SMEs', 'Consultancy services', and 'Other: NPOs, Think tanks, University, NGOs'. 79% of businesses in our database are in the 'startups' and 'SMEs' category. Which will have business models relevant for both public and private funding, including venture capital and private equity.

4 Latest data was retrieved on 28/03/24

Composition of UK green fintech businesses by organisation type (%)

Other
6.5%

SMEs
12%

Consulting services
14.6%

Startups
67%

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The ecosystem

Green Fintech 2.0

Impact investing

Carbon offsetting and trading

Carbon accounting

Natural capital accounting

Sustainability ratings

Alternative sustainability data

Sustainability reporting and advisory

Insurtech

Nature risk management

Climate risk management

- ● Digital ESG data and analytics solutions
- ● Green digital risk analysis and insurtech
- ● Green regtech solutions
- ● Other green fintech solutions

Product categories

Distribution of green fintechs by solution category breakdown (%)

Category	%
Carbon accounting	16.2%
Sustainability reporting and advisory	15.2%
Climate risk management	14.7%
Carbon offsetting and trading	11.1%
Alternative sustainability data	11.1%
Natural capital accounting	10.6%
Nature risk management	8.6%
Insurtech	5.6%
Impact investing	3.5%
Sustainability ratings	3.5%
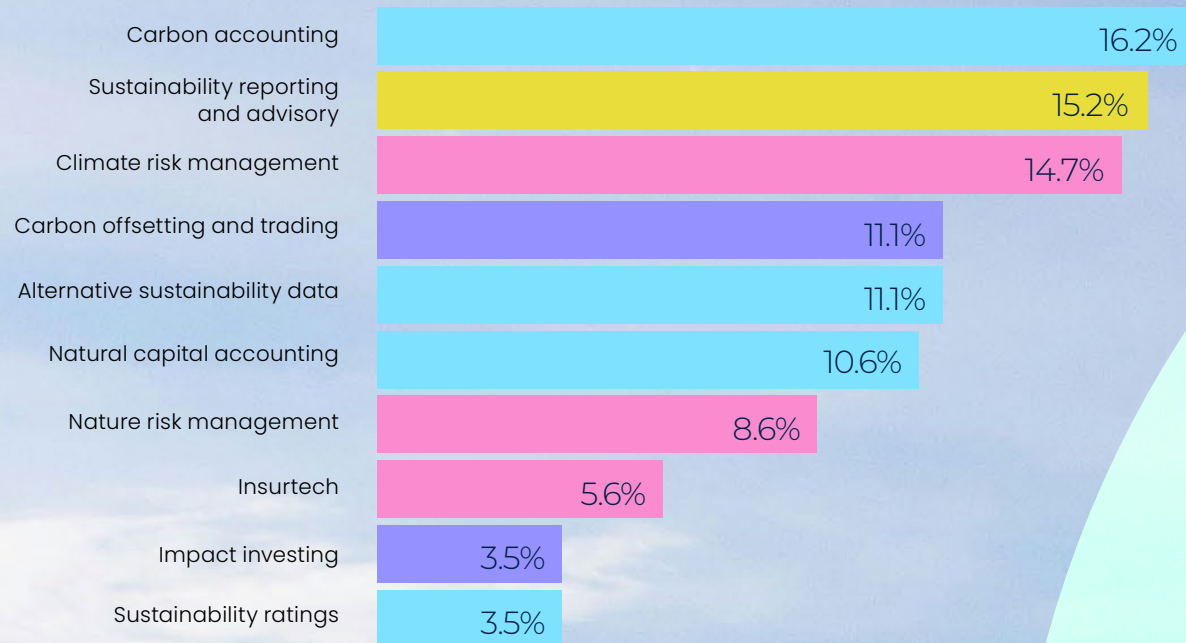
Most green fintech businesses in the UK are active in digital ESG analysis and solutions [41%], followed by green digital risk analysis and insurtech [29%], green regtech [15%] and other green fintech [14%]. Carbon accounting [16%], sustainability reporting [15%] and climate risk management [15%] are the most represented solutions.

Since 2020 we have seen most green fintechs established with solutions in carbon accounting [19], sustainability reporting and advisory [14], natural capital accounting [12], carbon offsetting and trading [11] and climate risk management [10]. The overall growth of green fintechs since 2020 is likely an underrepresentation, as many startups are still operating under the radar. We see a lot of potential for further growth in climate risk and nature risk management solutions as financial institutions get more skilled in integrating environmental considerations across their workflows.

Distribution of companies' founding year per product category
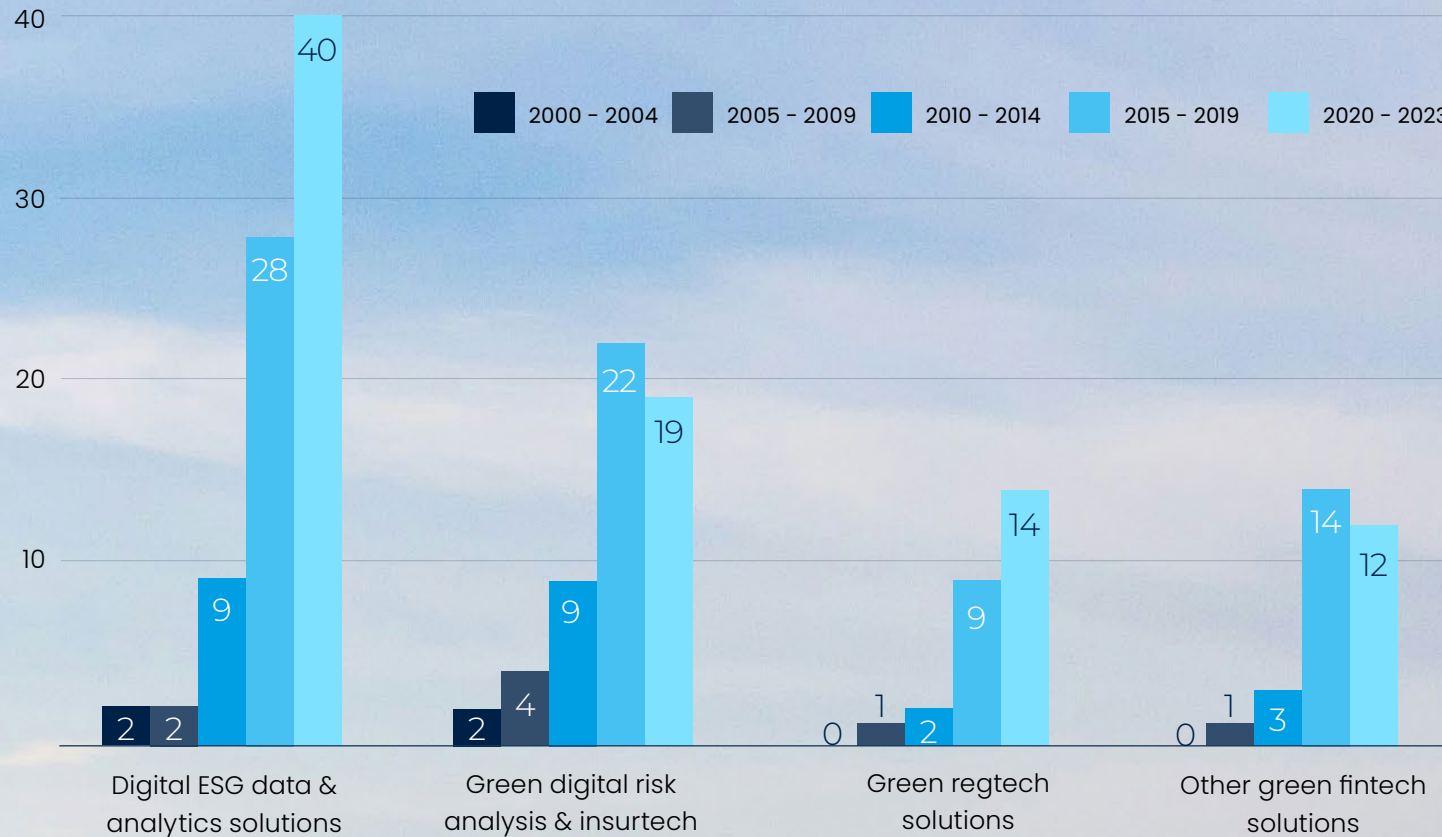
Legend: 2000 – 2004, 2005 – 2009, 2010 – 2014, 2015 – 2019, 2020 – 2023

Digital ESG data & analytics solutions: 2, 2, 9, 28, 40
Green digital risk analysis & insurtech: 2, 4, 9, 22, 19
Green regtech solutions: 0, 1, 2, 9, 14
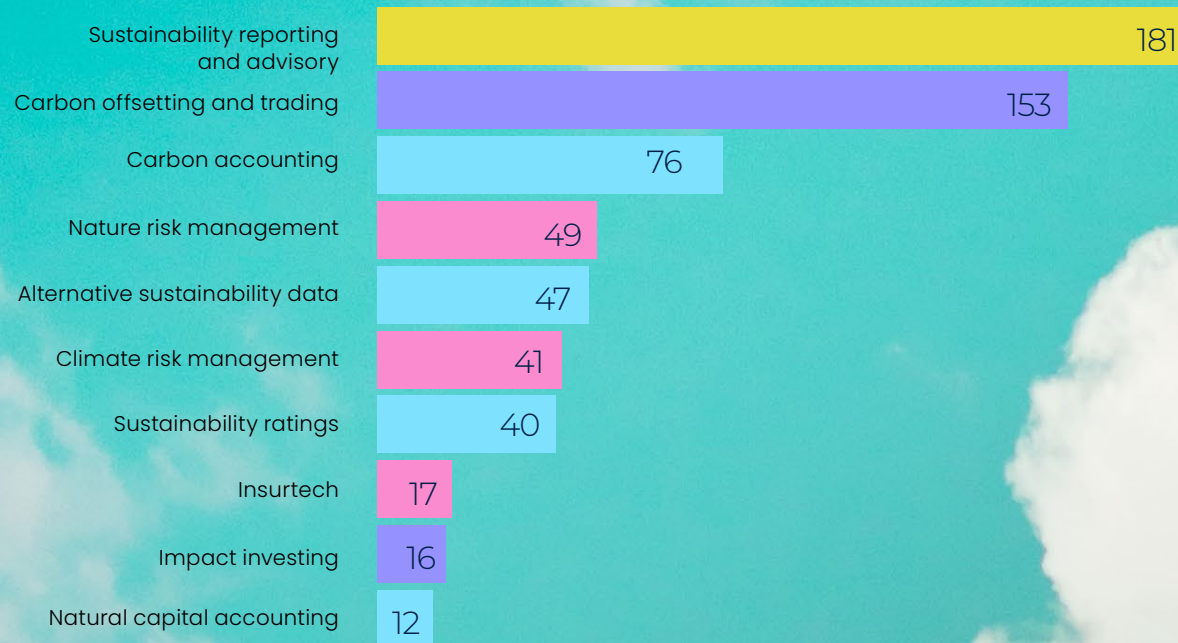Other green fintech solutions: 0, 1, 3, 14, 12

We see a lot of potential for further growth in climate risk and nature risk management solutions as financial institutions get more skilled in integrating environmental considerations across their workflows.

Funding and growth

Funding breakdown by subcategory (£ Million)

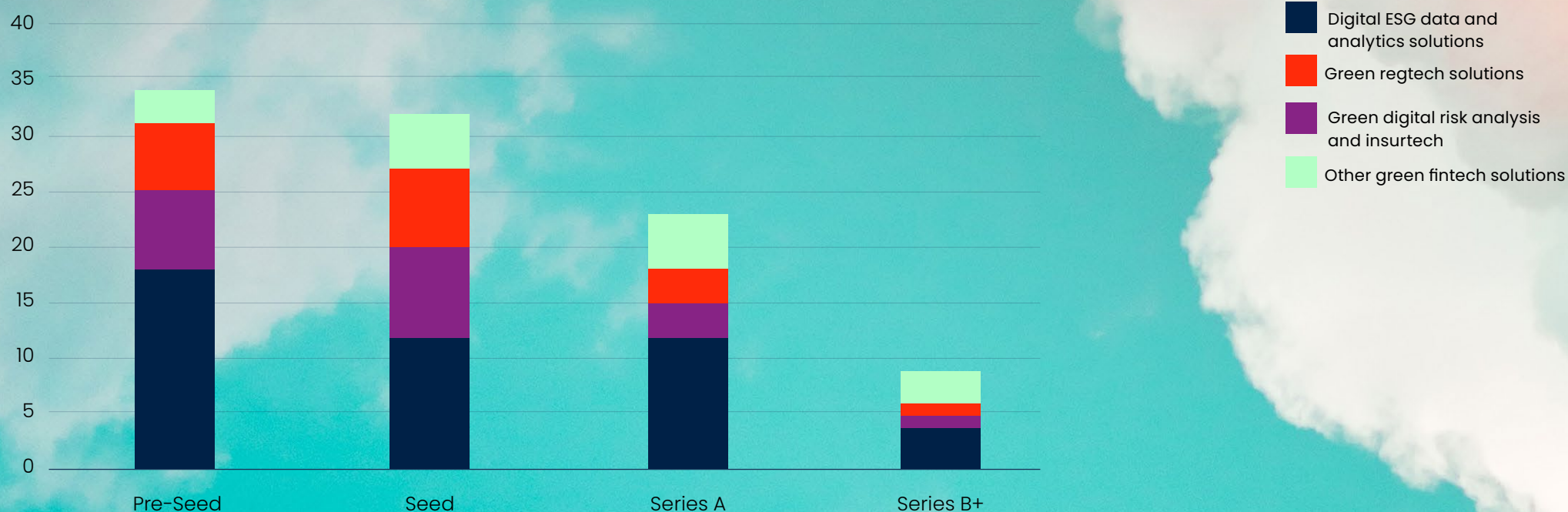| Subcategory	£ Million
Sustainability reporting and advisory	181
Carbon offsetting and trading	153
Carbon accounting	76
Nature risk management	49
Alternative sustainability data	47
Climate risk management	41
Sustainability ratings	40
Insurtech	17
Impact investing	16
Natural capital accounting	12

We were able to identify £632 million in total funding for 99 businesses in our database. Most of this funding went to solutions in sustainability reporting and advisory [£181M] and carbon offsetting and trading [£153M]. Sustainability reporting and advisory lead in funding among solution categories, even with outliers like Persefoni [£131M]. Early-stage companies tapping into existing customer bases present a significant scaling opportunity. This makes them attractive investments for asset owners interested in both climate-conscious and green fintech.

£632m
in total funding for 99 businesses in our database

Distribution of companies by funding stage

Legend:
- Digital ESG data and analytics solutions
- Green regtech solutions
- Green digital risk analysis and insurtech
- Other green fintech solutions

X-axis: Pre-Seed, Seed, Series A, Series B+
Y-axis: 0 to 40

Most of the businesses identified were still in the pre-seed and seed stages. This is unsurprising as nearly half [43%] of the businesses identified were established since 2020. Despite enduring a challenging macro-economic context over the past 5 years, green fintechs managed to attract first-time initial funding often through a mixture of public and private sector investments, often through government grant support.

In green fintech, defining startup stages is not straightforward.

Seed stage startups often outpace Series A companies, and Series B companies may still lack revenue. Unlike conventional models, where each funding stage indicates a specific level of product readiness, green fintech disrupts this norm. Grants and funds on behalf of the UK government, sovereign wealth funds, and pension funds continue to play a pivotal role as a crucial source of runway funding for SMEs and university spinouts that have advanced past the initial startup phase. Grants add another layer, distorting the traditional definitions originally designed for equity-only ventures. This cross-sectoral support is instrumental for both SMEs and early-stage green fintech ventures, facilitating the development of commercially viable R&D innovations. Not all startups are pursuing VC funding, highlighting the diverse funding landscape within the sector.
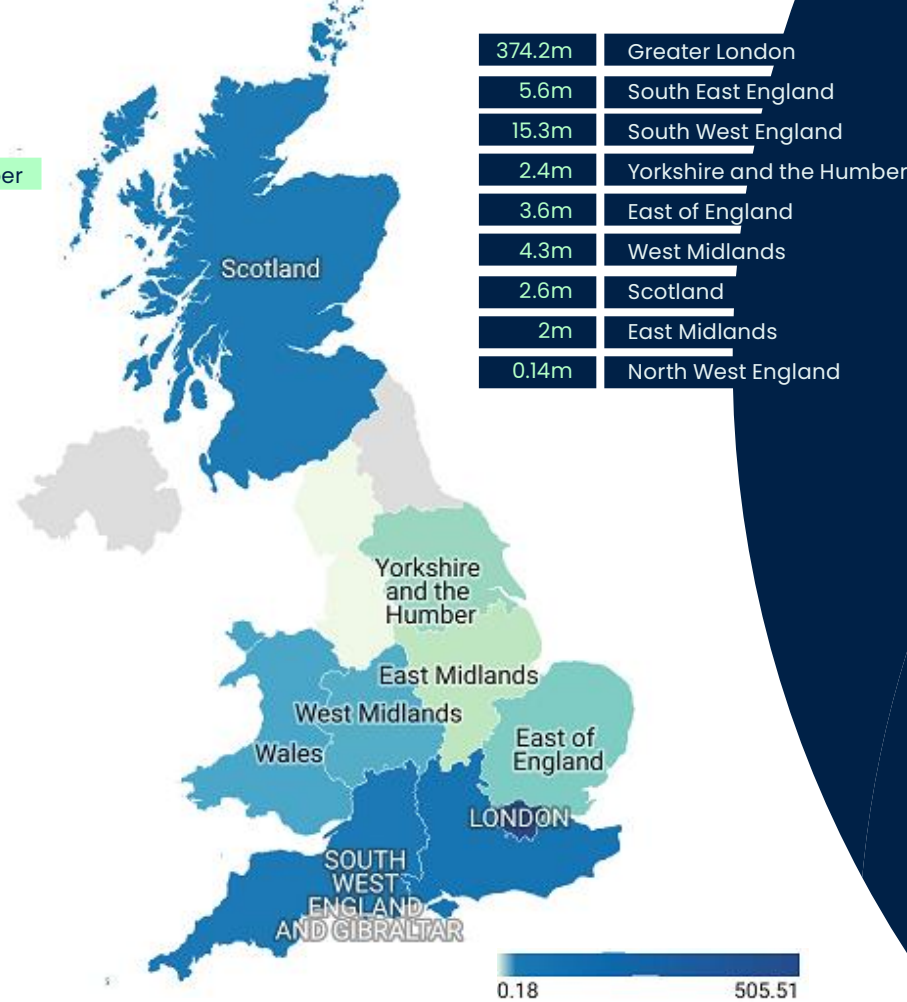
Regional distribution

Regional breakdown of green fintech businesses (%)

66%	Greater London
12%	South East England
7%	South West England
5%	Yorkshire and the Humber
4%	East of England
1%	West Midlands
1%	Wales
1%	Scotland
1%	East Midlands
1%	North West England
1%	Northern Ireland

0 ————— 66

Regional distribution of total funding (£ million) received by green fintechs since 2020

374.2m	Greater London
5.6m	South East England
15.3m	South West England
2.4m	Yorkshire and the Humber
3.6m	East of England
4.3m	West Midlands
2.6m	Scotland
2m	East Midlands
0.14m	North West England

0.18 ————— 505.51

The greater London region unsurprisingly leads in green fintech innovations and attracts the most investment. But other metropoliton centres show a lot of potential. Leeds is the largest centre for finance and professional services outside London and the second city in the UK for startup businesses. And science clusters in Oxford, Cambridge, Birmingham, Cardiff and Edinburgh are also experiencing notable growth.

We believe there is significant potential for further growth across different UK regions, building on strong climate and environmental science and data capabilities within universities and other research institutes. While the talent pool for scientifically robust green fintech ventures may be spread across the country, access to capital may attract entrepreneurs to establish in the capital. Access to clients might be another reason for the strong concentration in London, although different parts of the UK contain different concentrations of financial institutions and fintechs, with financial centres in Edinburgh, Leeds, Manchester and Birmingham[5].

5 The UK Fintech Landscape, 2021, Deloitte

Green fintechs -
Digital ESG data and analytics solutions

Carbon accounting

Solutions that help companies measure their scope 1, 2 or 3 carbon emissions across their own operations and/or supply chains.

ALTRUISTIQ

Altruistiq's data management platform takes the hassle out of handling data, eliminating the need for time-consuming tasks such as data gathering, cleaning, and navigating through emissions factors.

CONNECT EARTH

London-based environmental data company that democratises easy access to sustainability data.

Natural capital accounting

Solutions to measure the changes in the stock and condition of natural capital (ecosystems) at a variety of scales and to integrate the flow and value of ecosystem services into accounting and reporting systems.

PIVOTAL

Data infrastructure and analytics biodiversity measurement, carbon credits market.

ZULU ECOSYSTEMS

Their automated platform offers land stakeholders customised and actionable insights into opportunities for woodland creation, peatland restoration, biodiversity enhancement, soil health improvement, and water quality management.

Sustainability ratings

Solutions that score or rate the sustainability performance of a company's or financial instrument against one or more sustainability metrics.

INTEGRUM ESG

One-stop solution for assets managers and owners looking to integrate Environmental, Social and Governance data into their research.

NET PURPOSE

Provides quantitative facts on the social and environmental performance of companies and investment portfolios with the quality and transparency we expect of financial data.

Alternative sustainability data

Solutions based on environmental, social or governance data feeds from 'alternative' sources such as social media, government licences, academic databases, earth observation satellites, etc.

AUQUAN

AI-powered qualitative research for financial services to streamline deal sourcing, due diligence, risk monitoring, sustainability/ESG, and compliance.

GEOSPATIAL INSIGHT

Monitoring the impact of weather, catastrophic events and specific influencing factors that might affect risk analysis, loss evaluation and reinsurance.

Green fintechs -
Green digital risk analysis and insurtech

Climate risk management

Solutions to support financial institutions measure and manage climate-related financial risks. These include physical climate risks as well as climate transition and climate litigation risks.

JBA RISK MANAGEMENT

JBA releases first probabilistic global flood model, radically improving quantification of your flood risk anywhere in the world.

SUST GLOBAL

Sust Global develops Climate Risk Analytics and APIs to enable investors to introduce climate-informed factors into their workflows.

Nature risk management

Solutions to assist financial institutions in assessing and managing nature-related financial risks. These include physical nature risks (dependencies) as well as nature transition and litigation risks (impacts).

NATCAP RESEARCH

A nature intelligence green fintech spun out of the University of Oxford that builds products to help corporates manage nature risk, set nature targets, and meet emerging reporting requirements.

WATERMARQ

Watermarq's innovative approach combines remote sensing, in-situ data, contextual information, and peer-reviewed research to produce basin-specific insights on water availability, quality, value, and access.

Insurtech

Solutions for insurers or underwriters to support the development of green insurance products, improve environmental risk modelling or loss handling.

FLOODFLASH

FloodFlash is an insurance technology company that combines computer models, cloud software and internet-of-things sensors into flood cover that protects those the insurance industry has left behind.

KITA

Kita Earth is a UK-based company specialising in carbon insurance, aiming to accelerate efforts towards a decarbonized future.

Green fintechs -
Green regtech solutions

Sustainability reporting and advisory

Solutions and services to support corporates or financial institutions with their ESG/sustainability reporting requirements, for both voluntary and mandatory reporting purposes.

ETAINABL

Etainabl wants to enable organisations to take real control over all elements of sustainability, incorporating data points for environment, social and governance metrics.

NOSSA DATA

Reporting and data management across multiple frameworks, to reduce cost of capital and compliance.

OMNEVUE

A new online solution that has been specifically designed to make ESG simple and meaningful for SMEs and startups.

PERSEFONI

Green fintech that enables organisations and institutional investors to measure their carbon footprint.

Green fintechs -
Other green fintech solutions

Carbon offsetting and trading

Solutions that support actors across the carbon offset/credit value chain, from project developers to offset traders and offset buyers.

SYLVERA

Sylvera's goal is to encourage investment in genuine climate action by providing software that autonomously evaluates carbon projects, helping organisations make effective investments towards achieving net zero emissions.

THALLO

Thallo is focused on creating digital carbon credits that bridge the gap between the buyers and sellers of carbon credits.

YAYZY

An app that connects to a bank and calculates the exact environmental impact of customer's purchases to track, reduce, and offset carbon footprint.

Impact investing

Solutions to help financial institutions invest in projects or companies with a primary objective to drive measurable positive social and/or environmental impacts alongside profit or return generation.

KANA EARTH

Kana Earth provide the infrastructure for asset managers to invest in carbon projects, helping to tackle the climate crisis while generating sustainable returns.

REFARM FUND

ReFarm Fund provides finance & expertise to de-risk transition to regenerative & renewable approaches to make farming.

TUMELO

Green fintech that helps investment platforms and pension providers give investors insight into which firms their money is being put into, and a voice on issues such as board diversity and climate change.

Deep dive - Private-public funding synergies

We have come across several startups which are combining public grants to de-risk product development and private capital to fund growth. These are promising examples but more and deeper collaborations are needed to scale up the sector.

Dodo

Founded: 2020

Location: London

Growth stage: Pre-Seed

Product/service offering: A platform designed to expedite sustainable finance for businesses. It automates the process of capturing customer data, empowering businesses to broaden their green loan offerings seamlessly.

Application type: Digital ESG data and analysis solutions

Funding sources: SFC Capital, Climate KIC, New Energy Nexus, Imperial College London

Greenr

Founded: 2020

Location: London

Growth stage: Pre-Seed

Product/service offering: A platform that helps track and offset carbon footprint

Application type: Digital ESG data and analysis solutions

Funding sources: Innovate UK, FinTech Innovation Lab, Aurelia Ventures (non-equity assistance)

Treeconomy

Founded: 2018

Location: London

Growth stage: Seed

Product/service offering: Remote sensing and smart contracts for biodiversity data

Application type: Natural capital accounting

Funding sources: Innovate UK, Climate VC, Desai Family Office, A100x, Allegory and Angel

Deep dive - Acquisitions

Companies active in the green digital risk analysis and insurtech category, notably its climate risk management sub-category (>50%), have experienced the highest volume of exits, mergers, and acquisitions. We have come across various examples of green fintech startups that have been acquired:

Acclimatise

Acquired by: Willis Tower Watson (WTW)

Founded: 2004

Acquired date: 2020

Application type: Climate risk management

Product/service offering: Acclimatise is a specialist advisory and analytics company providing world-class expertise in climate change adaptation and risk management.

Fathom

Acquired by: Swiss Re

Founded: 2013

Acquired date: 2024

Application type: Climate risk management

Product/service offering: Fathom specialises in water-related risks under current and future climate scenarios that will further develop and distribute its innovative flood and climate risk data, maps, and models.
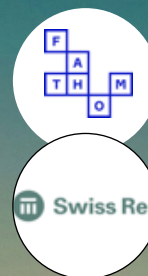
Spherics

Acquired by: Sage Group

Founded: 2020

Acquired date: 2022

Application type: Carbon accounting

Product/service offering: Spherics is a carbon accounting solution to help businesses easily understand and reduce their environmental impact.

Vasanda

Acquired by: Pole Star Global

Founded: 2017

Acquired date: 2021

Application type: Sustainability ratings

Product/service offering: Vasanda is a green fintech startup in sustainability risk screening using real-time, empirical impact data, that was acquired by Pole Star to strengthen its sustainability screening offering.

Watchkeeper

Acquired by: Datamir

Founded: 2018

Acquired date: 2021

Application type: Climate risk management

Product/service offering: Watchkeeper is an action orientated organisation addressing the Biodiversity and Climate crises through community led, landscape ecosystem restoration and carbon capture.

Foundations for growth

## **Outlook 1:** UK cleantech investment growth to fuel Green Fintech 2.0.

The UK continues to be the vibrant core of the European tech ecosystem, and startups play a pivotal role as essential drivers of economic growth and job creation. Not only is venture capital investment growing again quarter-over-quarter. But AI/deep tech and climate tech (including green fintech) stand out as the most dynamic startup segments in the UK. In 2023, climate tech comprised 29% of the total venture capital investment in the UK, reaching a record-breaking £5 billion. This marked a significant Year on year growth of 40%[6].

In 2023, climate tech comprised 29% of the total venture capital investment in the UK, reaching a record-breaking

£5bn

Venture capital investments in UK climate tech and deep tech as % of total venture capital investments in the UK.
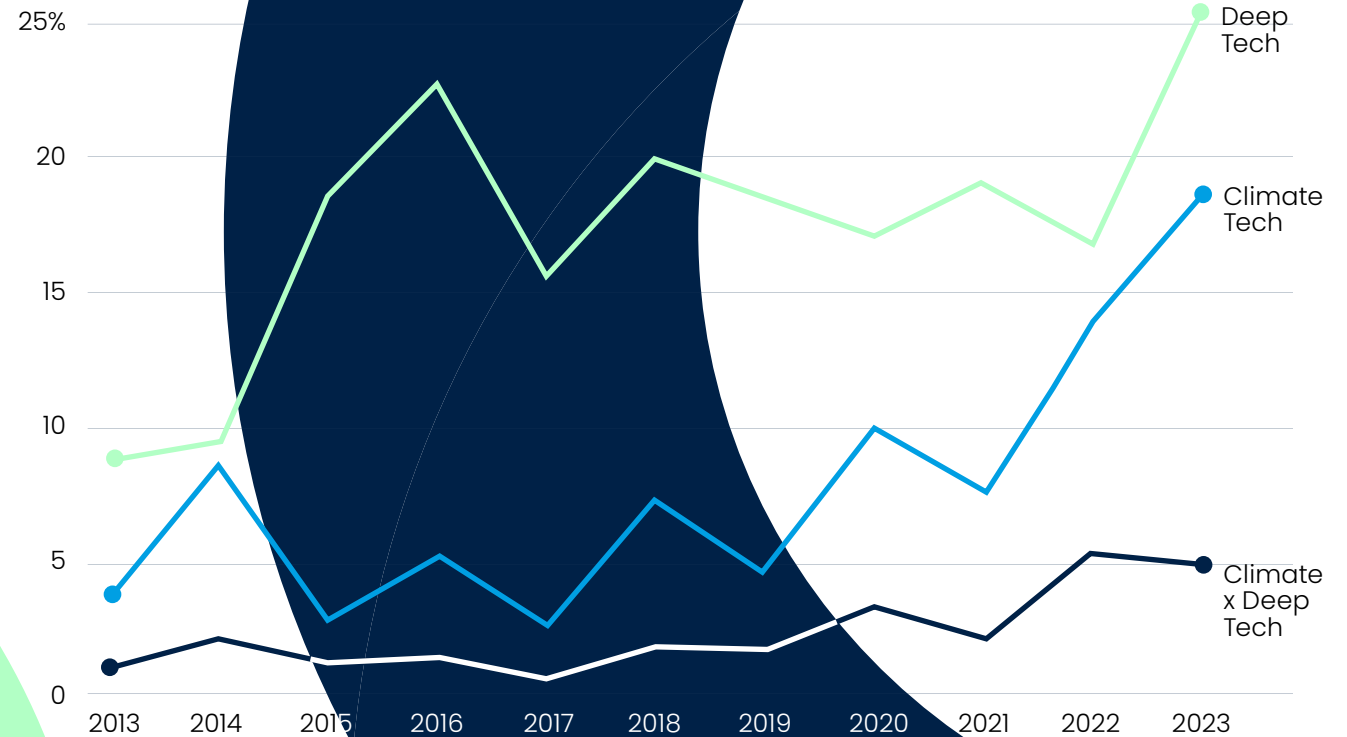
Source HSBC Innovation Banking x Dealroom.co

# **Outlook 2:** National and regional collaborative clusters

Superclusters are geographic regions characterised by a high concentration of innovative startups, established companies, research institutions, and other key stakeholders that collaborate and compete, driving rapid economic growth and technological advancement.

New Palo Alto is a 'supercluster' comprising top European ecosystems and research hubs in proximity. Globally, it ranks third for the number of unicorns and it holds the top position for the number of university alumni startups. New Palo Alto represents nearly half of the total startup enterprise value, and is the base for over 40% of all European unicorns.

Within New Palo Alto, the Climate Tech SuperCluster is a joint venture between Oxfordshire Greentech, Cambridge Cleantech, and Liminal. Its partners include EDF Energy, Founders Forum, Climate KIC, Climate Connection, Sustainable Ventures and Zinc. The SuperCluster aims to develop and scale climate-critical technologies by collectively partnering with innovators, investors, and institutions regionally and globally.

The New Palo Alto is a 'supercluster' comprising top European ecosystems and research hubs in proximity.

The Climate Tech SuperCluster connects climate tech talent, technology and investment within four hours of London

York

Leeds

Manchester

Cambridge

Cardiff

Oxford

London

Amsterdam

Antwerp

Brussels

Paris
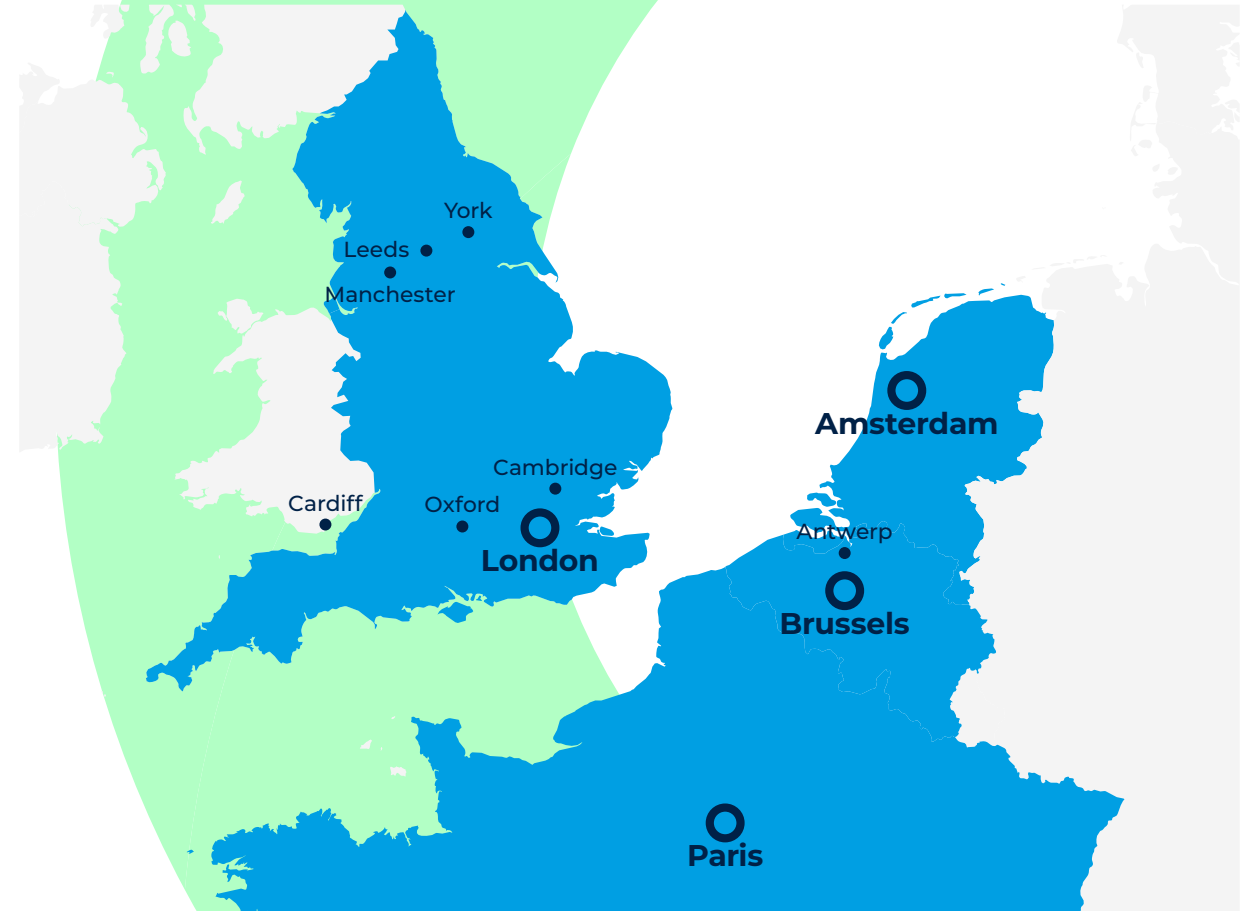
Outlook 3: Specialist accelerator programmes

In the UK, there is a burgeoning ecosystem of accelerators and incubators. Increasingly we are seeing programmes dedicated to nurturing startups in the green fintech and broader climate tech sectors:

Barclays Rise, The Start-up Academy Climate FinTech

The programme empowers entrepreneurs launching Climate FinTech solutions. Selected startups receive mentorship, resources, and access to Barclays' network to accelerate their growth.

Rainmaking

Rainmaking powers corporate innovation and venture development, forging new businesses alongside global leaders and entrepreneurs. Their Climate and Nature division works in close collaboration with corporate partners to define, test and scale commercial solutions for more sustainable systems. Climate Fintech and Finance is an important vertical for the team.

Plug and Play

Plug and Play accelerates technological progress by linking top-tier corporations with innovative startups worldwide, with a specific emphasis on sustainable fintech solutions. Key areas include carbon offsetting, ESG reporting, climate risk analysis, and banking and payments.

Undaunted Greenhouse

The Greenhouse, Undaunted's climate innovation accelerator programme in partnership with Imperial College London, supports the growth of cleantech startups combatting climate change. With support from CGFI they are increasingly incubating green fintech startups.

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Innovation thesis

At the heart of our vision and innovation thesis lies the conviction that scientifically robust climate and environmental analytics are indispensable for effectively reallocating capital. Only robust analytics allow us to understand risks from stranded assets, maladaptation, and irreversible damage to ecosystems, so we can mitigate those to safeguard people's savings and pensions.

Innovation at CGFI

The UK Centre for Greening Finance and Investment (CGFI) aims to accelerate the adoption and use of climate and environmental data and analytics by financial institutions internationally. CGFI was launched in 2021, building on the UK Government's first Green Finance Strategy and pursues these goals through three core pillars:

Research

Translating climate and environmental science into analytics for finance

Policy

Supporting the data needs of tomorrow through frameworks, standards and supporting regulators and policymakers

Innovation

Nurturing and accelerating an ecosystem of commercial 'green fintech' innovators

We acknowledge that a vibrant ecosystem of data and analytics intermediaries is required to operationalise and deliver the translation of scientific insights to financial institutions. As academic researchers we are not set up to do this, nor is it our role. But we want to be an ecosystem accelerator by:

- **Connecting the dots between networks of financial institutions, analytics businesses and researchers**
- **Stimulating early-stage ideas and businesses based on climate and environmental analytics**
- **Building capacity within financial institutions to ensure robust analytics are valued and interpreted appropriately**

Our CGFI Innovation Hubs in London and Leeds, where we host our events, competitions and business incubators, are the focal points for these efforts.
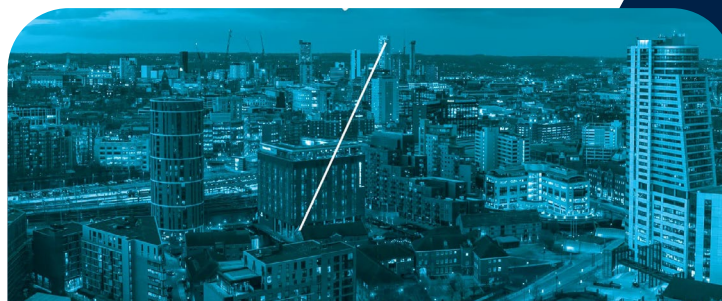
CGFI Innovation Hubs

Get involved

This report demonstrates that the UK is a hotbed for green fintech innovation. But we believe a lot of potential remains untapped in the climate and environmental science community to guide institutional investors allocating capital and mitigating risks.

Connect with us to accelerate green fintech solutions that leverage robust science for financial decision making. We want to grow solutions, companies and investments in this space and are looking for partners and collaborators to incubate ideas. If you share our vision and want to join us in our mission to accelerate a greener financial system, get in touch at **information@cgfi.ac.uk**.

CGFI
UK Centre for Greening Finance & Investment

CGFI Leeds Innovation Hub

Hosted at Nexus, University of Leeds, the CGFI Leeds Innovation Hub is a platform that connects the wider UK science and innovation community with financial institutions, focusing on climate and environmental analytics. It builds valuable connections and networks for exchanging climate challenges, ideas, and solutions. By facilitating knowledge exchange, raising application standards, and promoting innovation, the Hub plays a critical role at this intersection. Through industry-science collaborations, thought leadership, challenge competitions, and innovation, the Hub achieves these goals. Additionally, it provides industry internship placements to cultivate skills and expand talent capacity, developing the next generation of financial climate risk analysts.

CGFI London Innovation Hub

The CGFI London Innovation Hub, in partnership with the Grantham Institute and Imperial College Business School, drives analytics innovation and commercialisation. It empowers the next generation of breakthrough analytics by sponsoring The Data Analytics Prize in the Climate Investment Challenge, where university students globally devise creative solutions for integrating climate risk into financial decisions or creating novel green financial instruments. Additionally, it collaborates with Undaunted on The Greenhouse accelerator program to support high-potential, CGFI-backed startups addressing sustainability and climate challenges in finance.