The path to net zero for SMEs:

ESG and carbon accounting software deep dive 2024

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Introduction

At Nesta Impact Investments (NII) **one of our priorities is to invest in technology that helps SMEs make progress to net zero while raising their productivity**. A fundamental activity is understanding their carbon footprint and what action they could take to minimise it while improving the efficiency of their business operations. A key market driver is the **raft of regulation to encourage climate data disclosure.**

Meera Shah, NII's Investment Analyst, has done a deep dive into this sector and mapped over 290 companies, serving corporates and/or SMEs, which are already active in the UK, Europe, North America and APAC. We looked at climate fintech and focused mainly on the carbon accounting and tracking, environmental, social and corporate governance (ESG) reporting and carbon offset subsectors as our market. **Ultimately, we wanted to identify any investable 'white spaces' in this market**.

Our market map is not exhaustive and is a snapshot of a particular moment in time. **We welcome suggestions of companies to add to this list** and any comments or questions you may have to support building the industry-wide knowledge base in this area. You can explore our interactive solution map, which filters by product group, dollar investment raised and geography.

SMEs represent a significant percentage of employment not only in the UK (~61%) but worldwide (over 50%), with a need for solutions to make climate data disclosure easy, accurate and actionable both before and after they are mandated to do so.

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What we cover

In this deck, we focus on:

01 the **complex regulatory environment** for carbon and ESG reporting across the EU and the UK

02 the **market created for solutions** to support companies to comply with the regulations and the **amount of VC investment** that has been deployed to build these solutions

03 **insights gained from mapping the landscape** of current solutions and **opportunities** to make these SME-friendly.

04 a final note on **Nesta's investment priorities** and how to **get in touch** with us.

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Introduction

Summary of our findings

€9 billion+ TAM
The total addressable market (TAM) for ESG/carbon accounting software is large.

Active investment sector
European carbon accounting startups raised $1.4 billion in 2023. Globally, investors committed over $2.3 billion into the broader climate fintech sector.

Strong market need
Virtually all (99%) respondents to a Deloitte survey of public companies said that they were somewhat or very likely to invest in more disclosure-focused technology and tools in the following 12 months.

There is a high concentration of solutions for carbon accounting and ESG reporting, with **limited differentiation** between the core products. As such, there is scope for consolidation.

There could still be space for solutions which offer differentiated features or operate in less-crowded ends of the market such as life cycle assessment (LCA)or supply chain emissions.

There will **likely be a merging of carbon and financial reporting**, especially given that TCFD-aligned reporting is completed annually. Software solutions which enable this in a frictionless and secure environment will be in a favourable market position.

There is a **market timing risk** in building solutions specifically for SMEs as the current visible regulation does not directly impose obligations on SMEs. However, given SMEs' role in supply chains of large corporates or as customers of financial institutions, they are likely to need to align with regulatory reporting requirements.

Importantly, given the need more generally to manage and mitigate against climate and ESG risk, coupled with SMEs' significant role in the global economy, solutions in this area have the **potential to be highly impactful**.

Why is it important to support SMEs in their transition to net zero?

“The active **involvement of SMEs in response to** the **environmental and social challenges** we are currently facing **is crucial if national policy goals of sustainable development are to be achieved**.

In most countries, the **majority of businesses are SMEs** which contribute to the creation of jobs and overall economic wellbeing. They **represent about 90% of businesses and more than 50% of employment worldwide**. SMEs, by virtue of their prevalence and collective economic importance, are **every bit as relevant to the issue of sustainable development as larger organisations**.”– *Accounting for Sustainability*

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Why is it important to support SMEs in their transition to net zero?

"Small and medium-sized enterprises **(SMEs) are generating 44% of the UK's non-household greenhouse gas emissions**; SMEs want to be greener but **90% feel restrained by obstacles** such as cash flow and difficulty finding the right solutions to improve their environmental impact; **only 36% of SMEs have publicly communicated a net-zero target** as part of their efforts to fight climate change." – *Sage SME Climate Impact Report*

"**95% of SMEs are now aware of the government's 2050 net zero target**… **56% engaged directly with** other **businesses they work with** on how best to reduce their greenhouse gas emissions." – *Lloyds Banking Group: Where are SMEs on their journeys to Net Zero?*

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Regulations for carbon and ESG reporting

The EU is further ahead than the UK in terms of regulation. What are the impacts on SMEs?

There are many different reporting standards and frameworks for companies to be aware of. Companies in both regions, including SMEs, can be impacted by regulation put in place outside their borders.

Confirmed timelines relevant for SMEs

Regulatory drivers: EU and UK comparison

Regulatory Summary

Note that many companies fall under multiple programmes.

		Org Type & Size	Mandatory Programme	Year to File
EU	Parent registered in EU	Public-interest companies of 500+ employees.	NFRD CSRD	2022 2025
		All non-microcap public companies, alongside all private orgs that meet 2-of-3 of: (a) £40m+ revenue, (b) £20m+ balance sheet, (c) 250+ employees.	CSRD	2025
	Operating in EU	All investment management firms and advisors that have at least one EU-based consumer or shareholder.	SFDR	2022
UK	Parent registered in UK	All listed companies, plus any private orgs (including non-profits) that meet 2-of-3 of: (a) 250+ employees, (b) £36m+ revenue, (c) £18m+ balance sheet. (Calculated at a subsidiary level. Subsidiaries with parents registered outside the UK are exempt.)	SECR	2022
		Companies with UK-listed shares or global depositary receipts. All FCA-regulated asset managers and asset owners, including life insurers and pension providers.	FCA (TCFD)	2022
		Public interest entities, and UK-registered companies (public or private) with 500+ employees and £500m+ in revenue.	BEIS (TCFD)	2022
		Most orgs with 500+ employees. (Official cutoffs are still being negotiated.)	SDR	2024 or 2025
		Listed or private orgs with either 250+ employees or both of €44m+ revenue and a balance sheet of €38m+. (Larger non-profits that conduct "trade or business activities" as defined by the Companies Act 2006 are *not* exempt.)	ESOS	2023

Source: regulatory summary from Watershed

Glossary for frameworks and standards discussed in upcoming slides

- NFRD - Non-Financial Reporting Directive
- CSRD - Corporate Sustainability Reporting Directive
- SFDR - Sustainable Finance Disclosure Regulation
- SECR - Streamlined Energy and Carbon Reporting
- TCFD - Task Force on Climate-Related Financial Disclosures
- CR22 - Companies Regulations 22
- SDR - Sustainability Disclosure Requirements
- ISSB - International Sustainability Standards Board
- ESOS - Energy Savings Opportunity Scheme
- CBAM - Carbon Border Adjustment Mechanism
- PCAF - Partnership for Carbon Accounting Financials
- PRI - Principles for Responsible Investment
- CSDDD - Corporate Sustainability Due Diligence Directive

The EU is further ahead than the UK in terms of regulation. What are the impacts on SMEs?

EU SMEs: timelines for EU SME CSRD reporting have been confirmed as 2026 or 2028 with exemptions.

UK SMEs: CBAM reporting could impact UK SMEs. In 2028, UK SMEs in international corporate supply chains will be impacted by regulation for non-EU companies.

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Regulatory drivers: EU reporting timelines

Red - estimated timelines based on information available
Black - published information

2023

CBAM reporting obligations come into force for countries which import carbon intensive products into the EU (first report by end Jan 2024)

EU Taxonomy reporting for all six objectives approved. Second year of EU Taxonomy reporting for in scope companies (all companies in scope of NFRD)

2024

CSRD rules apply to large listed companies with 500+ employees (reports published in 2025)

EU Taxonomy reporting against all six objectives for in-scope companies. Reporting of underlying assets for all financial firms where investee companies have self-reported

2025

CSRD rules apply to large companies with two of the following criteria: 250+ employees, balance sheet of >€20 million or net revenue >€40 million (reports published in 2026)

2026

CBAM carbon pricing applies

CSRD rules apply to listed SMEs* (including scope 3 emissions, reports published in 2027)

Extension of the **EU Taxonomy** scope to large companies with 250+ employees

**SMEs can apply for a two-year reporting exemption*

2027

Extension of the **EU taxonomy** scope to listed SMEs

First CSDDD reports from large companies operating in the EU that meet certain thresholds, which are likely to be a turnover of €150 million+ and 500+ employees

2028

CSRD rules apply to non-EU companies with a turnover of €150 million+ and a large or listed subsidiary in the EU, or an EU branch with a net revenue >€40 million (reports published in 2029)

Detailed information on the regulations can be found in the appendix.

What regulations currently directly impact SMEs in the UK?

SECR requires scope 1 and 2 reporting for eligible companies, scope 3 is voluntary. The disclosures do not have to be externally validated.

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Regulatory drivers: UK

Streamlined Energy and Carbon Reporting (SECR) is a further UK legislative standard for carbon reporting. It came into effect in 2018 and requires organisations to share energy use and carbon emissions information in their annual reports. This applies to companies and LLPs which meet two or more of these criteria:

- turnover of £36 million or more
- balance sheet of £18 million or more
- 250 employees or more.

Reporting scope 3 emissions is voluntary under SECR.

Energy Savings Opportunity Scheme (ESOS) - came into effect in 2014 and requires all organisations that qualify to carry out ESOS assessments every four years. These assessments are audits of the energy used by their buildings, industrial processes and transport to identify cost-effective energy saving measures. We believe this is a legacy EU reporting requirement which is likely to be superceded.

SECR is focused on a company's greenhouse gas emissions, while ESOS is concerned with energy usage. The Conduct Committee of the Financial Reporting Council can impose fines for non-compliance. There can also be fines imposed for late submissions, ranging from £150 up to £7,500. Failure to comply with ESOS will result in an initial penalty of up to £5,000, followed by a daily fine of £500 for each working day of non-compliance.

What is on the horizon for SMEs in the UK?

UK SMEs: reporting timeframes are defined for large companies. Reporting timeframes for SMEs are yet to be confirmed.

Consultation on the green taxonomy was due to take place in 2023 – when finalised, this will be implemented under SDR.

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Regulatory drivers: UK timelines

Red - estimated timelines based on information available
Black - published information

2022 | 2023 | 2024 | 2025 | 2026 | 2028

PCAF reporting within three years for financial institutions which have signed up to PCAF/SBTi

2022

CR22 TCFD-aligned reporting applicable for accounting periods on or after 6 April 2022 for large companies (500+ employees, either a public company trading on a UK regulated market, AIM or a private company which has a turnover of £500 million+)

ISSB agrees on introduction of scope 3 emission reporting

2023

CBAM reporting for countries which import carbon intensive products into the EU

Finalisation of **ISSB S1 and S2 standards** and finalisation of the **SDR rules** for all FCA regulated firms

Updated **PRI** reporting for signatories before Dec 2020

2024

ISSB S1 and S2 standards reporting (including scope 3) - UK government endorsement of standards now not expected until Q1 2025

Consultation on **Green Taxonomy** (originally due in 2023)

Updated **PRI** reporting for signatories after Dec 2020

SDR anti-greenwashing rule, naming and marketing rules, labelling regime, pre-contractual disclosures and rules for distributors all apply

2025

TCFD-aligned* reporting mandatory across all UK companies - agreed in 2022, potential for this to slip for SMEs

ISSB reporting for companies which opted to take one-year relief measures – 2025 UK reporting voluntary, expected to be mandatory for accounting periods after 1 January 2025

SDR sustainability product report and entity level disclosure requirements apply

2026

ISSB mandatory reporting – unclear if SMEs will be expected to report on these timeframes

Start of **Green Taxonomy** disclosures (under SDR) for large companies?

2028

CSRD mandatory reporting for non-EU companies with a turnover of €150 million+.

*TCFD monitoring responsibilities will move to ISSB from 2024

Detailed information on the regulations can be found in the appendix.

What do companies need to do to comply with regulation?

Europe already requires large companies to report on scope 3 emissions and this is expected to come into force in the UK in the next few years. Even if not directly impacted, SMEs are likely to need to provide large amounts of emissions data to their corporate clients in order to support this disclosure and tools will be required to enable this.

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Summary of regulatory impact

Large companies, as defined in the previous slides, are currently required to report against a multitude of frameworks for their scope 1 and 2 emissions in the UK (SECR) and scope 1, 2 and 3 emissions in Europe (CSRD). TCFD-aligned reporting is also mandated for large UK companies under CR22 and will be part of a company's overall ESG reporting. **Penalties for non-compliance vary across geographies, for example**:

- CSRD non-compliance penalties are enforced by individual member states and can vary across Europe. Defined penalties include fines and imprisonment for company directors
- SECR non-compliance results in fines
- CR22 non-compliance is monitored by the Financial Reporting Council (FRC), which has the power to "make an application to the court for a declaration that the annual report and accounts of a company do not comply… with the requirements of the Companies Act".

Scope 3 reporting will become mandatory in the UK when the government endorses the ISSB standards and mandates reporting (first mandatory ISSB reporting year expected to be 2026). Scope 3 reporting involves understanding the impact of supply chain and financed emissions and this can be modelled in several different ways. There is no formal rule in the UK for how scope 3 emissions should be calculated but this is likely to involve large amounts of data being required to be sent from suppliers (typically SMEs) to their corporate clients and banks.

There is a need for innovation in tools to support current and future disclosures. For scope 3 in particular, we need to understand the detailed reporting requirements that corporates have for their suppliers, that financial institutions have for their loan and investment recipients, and the level of granularity that will be requested.

Market research

What is the current level of investment into ESG and carbon accounting tools?

Investment into climate fintech in 2022 ($2.9 billion) was over double the investment in 2021 ($1.2 billion). 2023 almost matched 2022 funding ($2.3 billion).

Carbon accounting was the best funded sector and Sweep was the best financed in the sector in 2022.

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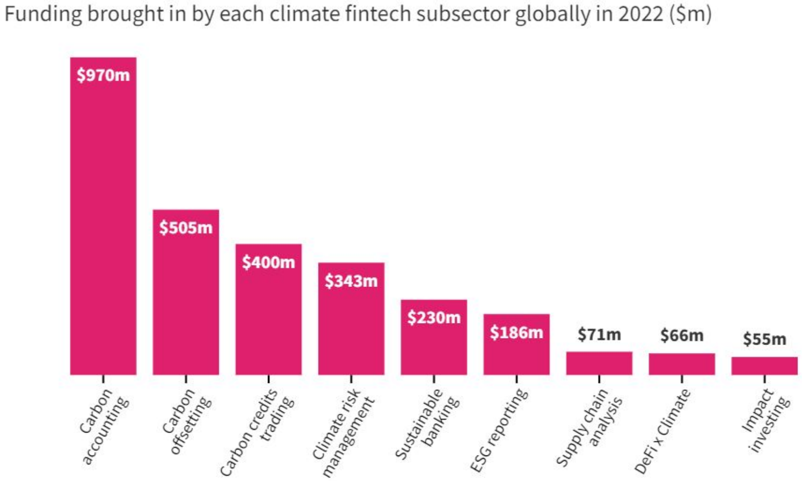
Market size

According to research by Sifted, investors poured $2.9 billion into climate fintech companies globally in 2022 (a record high) - up from $1.2 billion in 2021. 2023 almost matched this with $2.3 billion invested across Europe and the US . This is set against a backdrop of of overall venture funding declining in this period and dropping to 6-year lows in 2023.

France and the UK were the top two countries whose climate fintech startups secured the most funding in Europe in 2022. **Carbon accounting is the best funded sector in climate fintech and accounted for $970 million** (of the $2.9 billion) – **ESG reporting accounted for $186 million**. Carbon offsetting is the faster growing sector.

Globally, the majority of climate fintech companies that raised in 2022 were early-stage startups: 56% raised a seed or pre-seed round.



Source: *Sifted – Climate fintech funding reaches record high in 2022*

What is the current level of investment into ESG and carbon accounting tools?

100 deals were completed in carbon accounting and analytics tools in 2022 with an average deal size of $12 million.

2021 saw an escalation of investment into carbon tracking and offset solutions.

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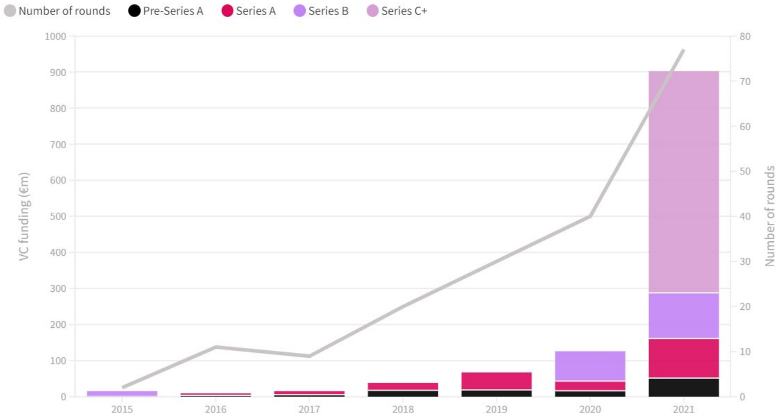
Market size

Pitchbook estimates the **investment in carbon accounting and analytics** to be slightly higher at **$1.2 billion in 2022** (possibly due to differences in definition/geography). This represents **100 deals, giving an average deal size of $12 million**.

Based on Dealroom data from 2015-2021, **funding for carbon tracking and offset startups increased by more than seven times in 2021** (to ~€900 million). The **top countries for carbon tracking and offset funding** are **Germany** (€44.46 million), **France** (€31.8 million), **UK** (€31.6 million), **Sweden** (€31.11 million), **Luxembourg** (€9.81 million).

VC funding into European carbon tracking & offset startups (€m), 2015-2021



Source: *Sifted – Carbon accounting and offsets*

The most active investors in this space by deal count were:

PLUGANDPLAY
Y
BGV
<norrsken> >C
COMMERZ VENTURES
HV CAPITAL
KEEN venture partners
octopus ventures

A 2023 report into investments in climate tech (not specific to carbon accounting) noted the following as other active investors:

European Innovation Council
eit Climate-KIC
bpifrance
VF
un reason able
LOWERCARBON CAPITAL

What is the current level of investment into ESG and carbon accounting tools?

Corporate investment into tools which support disclosure against regulations is growing.

The estimated **TAM** for the ESG/carbon accounting software market is **~€9 billion+** (it's large!)

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Market size

Deloitte commissioned an **online survey of 300 senior finance, accounting, sustainability and legal executives**, and conducted interviews at publicly owned companies with revenues greater than $500 million, across sectors including consumer products, financial services, life sciences and health care, oil and gas, and technology, media and telecommunications. In order to address ESG data and reporting needs, **virtually all (99%) respondents said that they were somewhat or very likely to invest in more disclosure-focused technology and tools in the following 12 months, and more than 80% reported that their companies have new roles or responsibilities to prepare for increased regulatory disclosure requirements**.

A PwC Strategy& report from February 2023 estimates a **European and North American TAM of ~€9 billion in 2021 (~€6 billion SAM) for the ESG reporting market** and a penetration rate of ~40% in the US, UK and Canada. Other reports have suggested a **$15.31 billion market for carbon accounting software**, a **$9.1 billion market for carbon footprint management** software and an expected market of **$1.8 billion for ESG reporting** software.

What is the impact of regulation on (SME) tool development?

Regulations are coming even if timelines are not yet confirmed. SMEs that act early will ultimately benefit.

The ability to evidence progress towards targets and commitments accurately will **protect against greenwashing**. ESG and carbon accounting tools can support with this.

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Reflections on the regulatory drivers in the market

Many ESG tools currently support EU taxonomy reporting and will need to start providing a wrap-around CSRD solution. This is an **opportunity area for tools that will need to support UK taxonomy reporting**.

There are **no specific regulations for UK SMEs until 2025 when TCFD-aligned reporting is planned to come into force across the UK economy.** Now that the SDR rules for asset managers have been finalised, the UK Green Taxonomy is expected to follow. The timelines will likely follow the EU pattern with SMEs most likely needing to provide mandatory reporting soon after 2027 (or 2029 with a two year exemption). Even though reporting is not mandated for SMEs, **companies are starting to prepare internally for future reporting and software which can support this in a frictionless way will add value.**

EU import-related carbon reporting requirements for carbon intensive industries will **likely impact UK SMEs**. With increased reporting requirements for large corporates, there will be a downstream impact on their suppliers who will need to provide them with information (typically SMEs).

In the UK, both the Competition and Markets Authority (CMA) and the Advertising Standards Authority launched a number of investigations into greenwashing in 2022, and further action is expected in the coming years. The European Commission has also proposed a new directive intended to ban various greenwashing practices. **The prevention of greenwashing will continue to be a key theme in the next few years**.

Beyond regulation, what are the other growth drivers for the market?

From our due diligence calls, we believe the main growth drivers will be **positive share price movements** and eligibility for **tax rebates** when companies are able to evidence reduced emissions, especially if these are linked to carbon prices.

Pricing, operations and meeting the demand for transparency

Beyond regulation, businesses are increasingly adopting ESG software due to the effect of sustainability performance on company valuation and operational benefits expected. These include:

Positive share price movement in the form of **green premiums** (vs a brown discount).

Eligibility for tax rebates for companies able to **evidence reduction in "emissions per dollar"** and as a contributor to national net zero targets.

Productivity gains and cost savings, which are typically realised through increased digitisation.

Reduction in operational risks and **lower insurance premiums**.

Information transparency and consistency required for standardised and reliable ESG benchmarking – leading to improved brand reputation and trust against greenwashing.

Increased **oversight on quality of data** and the ability to do independent ESG programme management and make informed decisions about the sustainability of the business.

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How many people are working in roles which have an ESG mandate?

The ESG workforce was 400,000 in 2021 and is highly likely to have increased.

ESG and sustainability consulting is forecast to reach $16 billion by 2027.

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Employment in ESG

- A white paper from Robert Walters found that the UK's **ESG workforce** **expanded by 7% in 2021**, equivalent to an additional 35,000 employees to stand at **400,000 professionals**.

- A report by research firm Verdantix forecasts that **investment in ESG and sustainability consulting will** **reach $16 billion by 2027**. There is a clear **opportunity for new tools and technologies** to support and disrupt this growing employment industry.

What roles do accountants play in this market?

Accountants and auditors will play an important role in assuring the accuracy of emissions data reporting and ultimately ensuring the flow of money away from harmful activities and towards sustainable investments.

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Role of accountants and auditors in ESG and carbon accounting

Accounting and auditing are key tools to **communicate reliable climate information to investors and the market**. The financial system affects the flow of money away from harmful activities and toward sustainable, climate-friendly investments. But it can only function effectively with reliable information that is accessible to investors.

EY reports that "the accounting profession has the opportunity to apply its experience over the last century to the fight against climate change".

- The skills of accounting professionals will help ensure that **globally consistent climate metrics are achieved**.
- They will provide **independent assurance over climate reporting**.
- Through their roles on boards and in management, accounting and finance, professionals will bring **discipline to climate and sustainability reporting**.

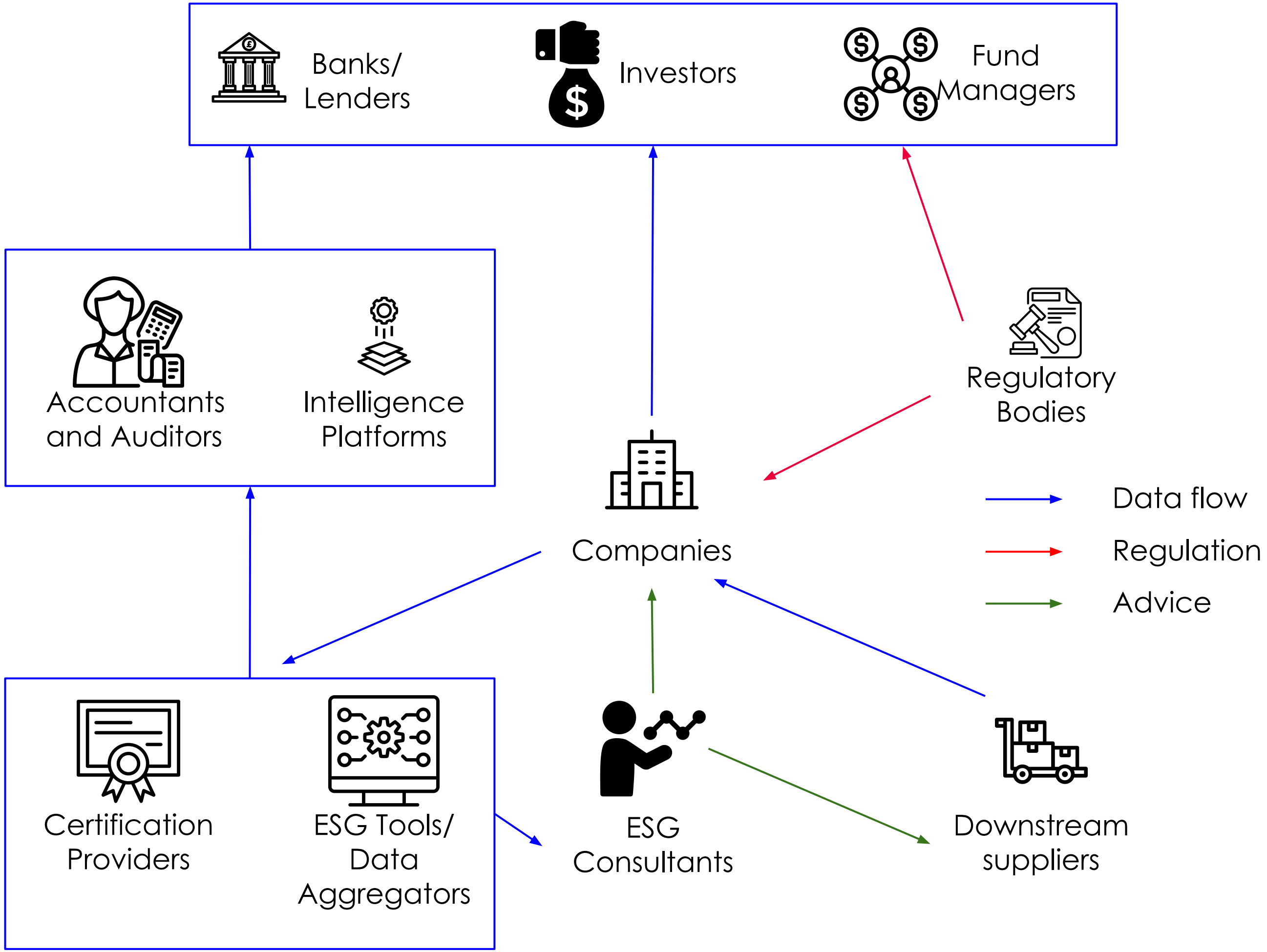
There is a **trend for increasingly standardised and granular reporting** and, as this progresses, accountants and auditors will likely be **responsible for assuring the accuracy of data and ensuring that disclosures are in line with TCFD (ICAEW)**. Deloitte also believes that it is "likely that external assurance over TCFD disclosures will soon become mandatory".

There will likely be a **merging of carbon and financial reporting**, especially given that TCFD-aligned reporting is completed annually. Software which enables this in a frictionless and secure environment will be in a favourable market position.

Stakeholder map:

who are the main actors in the ESG/ carbon reporting market?

**From an SME point of view. Arrows indicate example data/ regulation/ advice flows*



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Understanding the investment landscape

An overcrowded market?

202 of the 298 companies analysed were based in the **UK or Europe**, which is expected given the pace of regulation.

We anticipate a rise in US activity given both the SEC (paused) and some states introducing climate information disclosure across scopes 1, 2 and 3.

The introduction of subsidies and tax breaks under the Inflation Reduction Act (IRA) in the US may also generate the need for climate data disclosure solutions to evidence impact.

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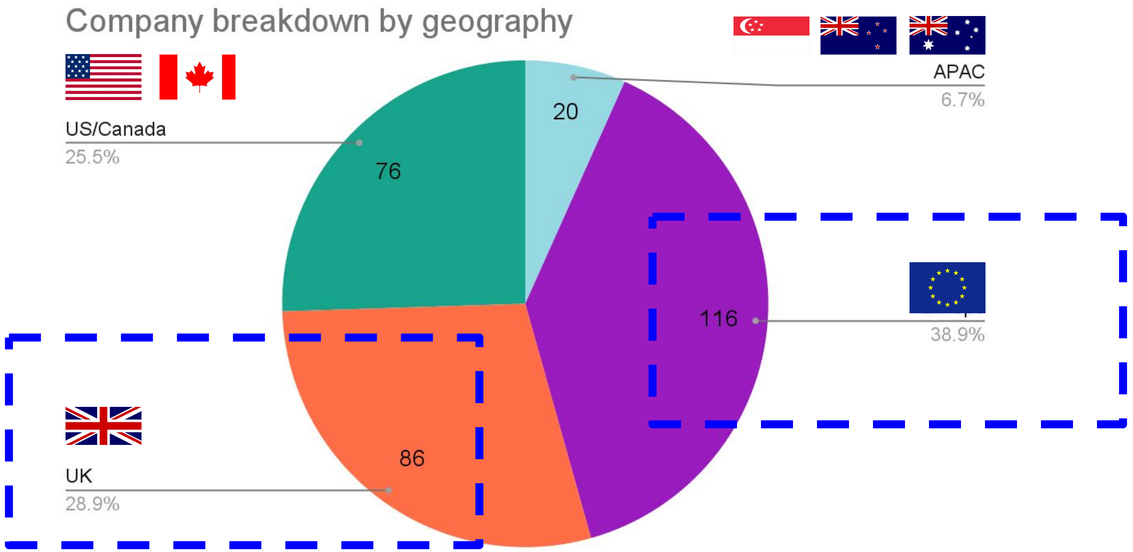
High-level insights from the longlist of companies innovating in this area

Through a variety of sources, including Dealroom, Crunchbase, inbound opportunities and multiple market maps, we found **298 companies*** which were current startups, acquired companies and established organisations with a focus on digital ESG and carbon accounting tools. We did not have any specific filters on stage or funding amount. The breakdown of these companies by geography is as follows:



*Additional companies part of the initial long-list (350+)were removed if their main focus was not in ESG or carbon accounting software or accreditation eg if they were broadly impact aligned or only offered advisory services.

Source: Nesta Impact Investments

An overcrowded market?

154 companies analysed were carbon accounting platforms and 103 companies were ESG assessment platforms (not mutually exclusive).

**One single company can have multiple product group assignments depending on their range of features.*

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High-level insights from the longlist of companies innovating in this area

As well as understanding the geographical spread of the landscape, the companies were assigned product groups according to the following definitions.

Product group	Definition	# of Companies*
Carbon accounting platform	Software which analyses and tracks a company's scope 1,2, and/or 3 emissions.	154
ESG assessment platform	Software which supports the assessment of a company's ESG credentials. If a company claimed to report on ESG but only offered carbon solutions, these were not included.	103
Climate action platform	Software which facilitates emissions reduction, for example through trajectory modelling, actionable recommendations or links to network of 'sustainable' suppliers	57
Carbon offset	Software which supports carbon offsetting, such as through providing a marketplace or services to facilitate purchasing of carbon credits.	53
Intelligence platform	Software which provides aggregated intelligence for businesses, for example competitor/industry ratings or verified data for calculations etc.	45
Supplier management platform	Software which manages supplier data for supply chain reporting, such as through integrations to their data sources. They typically provide features for collaboration, support for supplier decarbonisation etc.	21
Environmental impact assessment platform	Software which supports the assessment of a company's environmental impact, such as through life cycle assessments (LCAs).	18
Certification provider	Platform/organisation which assesses company claims and provides verifiable kitemarks to prove ESG/carbon credentials.	7

An overcrowded market?

There are a large number of undifferentiated core value propositions.

Additional features such as offsetting, superior technical functionality, marketplace models, links to suppliers and green finance are being offered in order to create differentiation.

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High-level insights from the longlist of innovators

We have established that there are a **large number of companies providing carbon accounting or ESG assessment software** and tools.

Many of these companies are offering the same set of **core features** as part of their product – for example:

- **data collection** (automated or manual)
- **measurement**
- **goal setting and reduction recommendations**
- **reporting** (against standards such as TCFD, GRI).

They are only differentiated through price point or geographical focus. The sector is ripe for consolidation.

In order to stand out in this market, additional features or points of differentiation that some platforms are offering are:

- **sector-specific tools** which provide deeper insight or provide more tailored functionality for investments, retail, food, construction etc
- links or functionality to enable **offsetting**
- **marketplace models** with renewable energy providers
- **superior technical products** such as accounting/financial grade platforms
- **links to/support for suppliers** such as offering decarbonisation recommendations or easy ways to share data/reporting
- **links to/support with obtaining green finance.**

These findings are supported by Sifted's reporting of trends, which includes the following insights:

> *"As more and more carbon accounting startups emerge, some are honing in on specific industries with their software, from fashion to heavy industry."*
>
> *"Some startups are already combining different services into one, like carbon offset verification and marketplaces. In the future, start-ups may integrate even further to originate projects with landowners directly and prevent middle men from taking a cut of their revenue."*

What might help SMEs?

The following features could support SME businesses:

- low barrier to entry (cost and onboarding time)
- high levels of automation
- links to support/ suppliers/ professional services
- analysis and insights for data.

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SME-friendly solutions

Given the large number of companies we came across with solutions suitable for SMEs, it is important to define what a potential 'hero' product would look like for the SME market. This market is highly fragmented and full of companies that are time and resource poor. We think **investable solutions** should therefore have **features** such as:

- **affordable** price point and **frictionless** onboarding
- **network effect** where there is a benefit to inviting stakeholders onto the platform
- high levels of **automation and actionable insights**
- **links to** support which would be hard to otherwise find, such as **green finance, materials or suppliers**
- ability to **link to services such as accountants and auditors**
- ability to **share data up and down the supply chain.**

Nesta's investment strategy

Who do we invest in?

Nesta Impact Investments provide financial, knowledge and network capital to innovative tech ventures that are changing the world for good. **We look to invest in** successful businesses that deliver on our three impact goals in **education, health and sustainability**. We are backed by Nesta, the UK's social innovation agency. Committed to supporting outstanding entrepreneurs, we bring the skills, networks and resources of the 250-strong team at Nesta to accelerate success for the ventures we back.

If you would like to get in touch with our team, please reach out to us at: askinvestments@nesta.org.uk. Anyone wanting to apply for investment can do so via our Impact Investment site.

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Appendix

The EU is further ahead than the UK in terms of regulation. What are the impacts on SMEs?

EU Taxonomy reporting feeds into CSRD and SFDR reporting.

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Regulatory drivers: EU

- In June 2022 the EU and the European Parliament announced the Corporate Sustainability Reporting Directive (CSRD), which replaced the NFRD. This requires companies to publish regular reports on their ESG activities (including scope 3 emissions) to help investors, customers and other stakeholders evaluate their non-financial and social impact performance and will come into effect from **1 January 2026 for listed SMEs** (first reporting in 2027). SMEs will be able to opt out for a two-year transitional period and will be **exempt from the directive until January 2028**.

  The **EU Taxonomy** is a science-based classification system establishing which economic activities can be considered environmentally sustainable. This **feeds into** disclosure of **financial products (SFDR)** and **reporting by large and listed companies (CSRD)**.

- **Non-EU companies with a turnover of €150 million or more will also have to comply**, even if they have no legal ESG requirements in their jurisdiction. Reporting obligations for non-EU companies will start from 1 January 2028.

- While **non-listed SMEs** are not in scope at the moment, they can be asked to either report certain sustainability information to their business partners as part of their value chain or, if applicable, to their parent company if the group to which they belong is in the scope of CSRD.

The EU is further ahead than the UK in terms of regulation. What are the impacts on SMEs?

CBAM reporting begins in October. The timelines for paying the additional tax have not yet been confirmed.

CSDDD is likely to come into force later in 2024, with the first reporting expected in 2027.

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Regulatory drivers: EU

- In December 2022, the European Council and European Parliament reached an agreement to implement the Carbon Border Adjustment Mechanism (CBAM), **also known as the carbon border tax**. The aim of the policy is to target perceived 'carbon leakage' — the moving of carbon-intensive production outside of the EU to countries that have less climate regulation and/or the import of more carbon-intensive products as a replacement for products produced in the EU.

  The CBAM will make it more expensive to import certain products, such as cement, iron, fertilisers and hydrogen, **into the EU by adding a cost to compensate for embodied carbon emissions generated in their production**. The scheme was **introduced in October 2023, starting with a transitional period during which importers will be required to report carbon emissions** (but not yet pay the tax).

- An agreement on the **Corporate Sustainability Due Diligence Directive (CSDDD) was reached in March 2024**. The aim of this directive is to ensure that businesses take responsibility for the negative impacts of their activities. It sets out mandatory due diligence steps that companies must take to investigate their operations, subsidiaries and supply chains and address any adverse impacts on human rights and the environment. It applies to both EU and non-EU companies and will mandate companies to adopt a climate transition plan. After approval from the European Parliament, it will likely enter into force in later in 2024. Given two-year legislation adoption timelines by EU member states, the earliest it will apply to large companies (€150 million+ turnover) will be 2027.

What is on the horizon in the UK?

TCFD-aligned reporting is already required for 'large' companies. It is currently expected to be required for all companies from 2025 but there has not been an update on this timeline since 2022.

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Regulatory drivers: UK

- **TCFD**: the Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 (CR22) came into force on 6 April 2022. The CR22 implements the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). It requires companies to report on climate-related risks and opportunities. Companies are tasked with disclosure across four key areas: governance, strategy, risk management and metrics. Targets and further details on the disclosure requirements can be found here.

  The regulation applies to **UK companies with more than 500 employees**, which are either a public company trading on a UK regulated market, AIM or a private company which has a **turnover of more than £500 million**. The FCA also announced TCFD-aligned reporting requirements which came into force from 1 January 2022 for the largest firms with more than £50 billion in assets under management (or £25 billion assets under administration for asset owners). The first set of reports for these firms were due by 30 June 2023, reflecting the 2022 calendar year. Other firms with assets greater than £5 billion will be required to report on the 2023 calendar year, with reports due by 30 June 2024.

  SME regulation: It was announced in November 2020 that "the UK will become the first country in the world to make Task Force on Climate-related Financial Disclosures (TCFD) aligned disclosures fully mandatory across the economy by 2025". There is currently no update or further guidance on this timeline from an SME perspective.

- There is still uncertainty over other UK regulations - the UK SDR rules for asset managers have recently been finalised, however there is no formal guidance on the corporate component of the regulation. The UK Green Taxonomy (tool to provide investors with definitions of which economic activities should be labelled as green) is also still being worked on by the UK Government (further information on next slide).

What is on the horizon in the UK?

SDR will be the integrated regime for the disclosure of climate and other sustainability issues.

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Regulatory drivers: UK

- **UK Green Taxonomy**: the UK Government had indicated that it would base the UK taxonomy on the EU counterpart but it paused this work in December 2022. The Green Finance Strategy noted that the government expected to consult on the Taxonomy in autumn 2023, however no further information has been published since then. Once the Taxonomy has been finalised, companies will be expected to report voluntarily for two years (recognising usability challenges experienced internationally), after which mandatory disclosures will be explored.

- **UK SDR**: the UK government has introduced a **new integrated regime for the disclosure of climate and sustainability issues for UK companies and the financial sector**, called the Sustainability Disclosure Requirements (SDR). The plan was outlined in the government's Greening Finance Roadmap in October 2021. Under the SDR, listed companies will be required to publish climate transition plans as well as reporting on the UK green taxonomy. The UK government has said it **plans to adopt the ISSB (International Sustainability Standards Board) sustainability standards (first two standards published in June 2023) into UK law as part of the SDR regime** in due course (further information on next slide). This was restated in the Green Finance Strategy (pg 41).
  In terms of confirmed timelines for the SDR, the anti-greenwashing rule applies from 31 May 2024. The labelling regime and rules for distributors will apply from 31 July 2024 and the naming and marketing rule and the pre-contractual disclosures will apply from 2 December 2024. Finally, the sustainability product report and the entity level disclosure requirements will apply from 2 December 2025, subject to phase-in requirements.

What is on the horizon in the UK?

The first two ISSB standards were published in June 2023 and these will be adopted into UK law as part of the SDR regime in due course.

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Regulatory drivers: UK

- **ISSB**: ISSB was established to pursue **convergence on climate and ESG disclosure** standards and to simplify the sustainability reporting ecosystem **around the world**. The first two standards have now been published and they are
  - S1 General Requirements for Disclosure of Sustainability-related Financial Information and
  - S2 Climate-related Disclosures.

S1 and S2 are built on and consolidate the TCFD recommendations, SASB Standards, CDSB Framework, CDP, Integrated Reporting Framework and World Economic Forum metrics. TCFD monitoring responsibilities will move to ISSB from 2024.

The ISSB's work has received strong support from investors, companies, policymakers, market regulators and others from around the world and the first standards are effective for annual reporting periods beginning on or after 1 January 2024. The UK Government has not yet mandated reporting against the standards but plans to endorse them in Q1 2025.

Reporting scope: in October 2022, the **ISSB voted unanimously to include reporting of material Scope 3** emissions in addition to scope 1 and 2 emissions. At its December 2022 meeting, in response to comments, the **ISSB proposed to include some relief from scope 3 emission disclosure requirements**. The relief includes **delaying implementation for a year**, providing a framework for companies to report on how they measure their scope 3 emissions that incorporates the use of estimation, and refining proposed requirements for financed emissions.

What is on the horizon in the UK?

PRI and PCAF are voluntary standards that financial institutions can sign up to. Once they have signed up they will need to follow reporting regimes.

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Regulatory drivers: UK

- **PRI**: organisations can become a signatory of the PRI if they are asset owners representing the holders of long-term retirement savings, insurance and other assets, investment managers controlling funds as a third party, serving an institutional and/or retail market or service providers to asset owners and/or investment managers. This is a voluntary programme. Following the pilot of the reporting framework in 2021, PRI released an updated framework in January 2023 which requires investors who signed before December 2020 to report in 2023 and those who signed after December 2020 to report in 2024 (they can report in 2023 on a voluntary basis). PRI has “restructured some sections for a clearer and better aligned structure across the 2023 Reporting Framework and with other widely recognised frameworks (eg TCFD, TNFD)”.

- **PCAF**: PCAF is a worldwide collaboration of financial institutions that create and administer a streamlined process to review and disclose financed emissions (scope 3). Currently, more than 345 financial institutions have subscribed to the PCAF initiative. In November 2020, PCAF developed the Global GHG Accounting and Reporting Standard for the Financial Industry. There are currently six asset classes for which institutions are required to disclose the percentage of their current total investments and loans in their financed emissions inventory. PCAF’s framework also aligns with TCFD and it has partnered with SBTi (reporting on the same asset classes) to give additional impetus to financial institutions to adjust their investment portfolios in line with the Paris Agreement. PCAF’s methodology also helps PRI’s signatories to understand their environmental impact.

What is on the horizon in the UK?

Innovate UK is starting to fund solutions which support supplier reporting to allow accurate scope 3 reporting by public sector bodies (in Wales).

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Regulatory drivers: UK

- **PCAF:** financial institutions pledge to make their first PCAF disclosure within three years of signing their commitment letter. The scope of portfolio coverage for the first PCAF disclosure is entirely up to the financial institution, for example, one asset class, one sector, or simply a percentage of the total portfolio. However, financial institutions shall be transparent in their coverage and justify any exclusions. As of March 2024, 11 out of 47 institutions who have signed up with a HQ in the UK have disclosed. 6 companies look to have missed their three-year disclosure deadline (signed up before March 2021).

- Solutions for **scope 3 reporting affecting SMEs** are also being **funded through innovation challenges** such as the Innovate UK funding prize. This is for carbon accounting tools "that will enable SMEs in the public sector supply chain to easily assess and account for the carbon emissions of the goods and services that they provide, thus allowing for accurate scope 3 reporting by public sector bodies." Scope 3 reporting for larger companies is already required under the EU CSRD, and is voluntary but recommended in the UK until such time as the ISSB standards are endorsed by the UK government (expected in 2024). **This scope 3 reporting will directly impact UK SME suppliers** who will not otherwise be mandated to provide their own emissions reporting.

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