IMPACT LENS
PENSIONS FOR PURPOSE

Commissioned by
SAIL INVESTMENTS

Climate Innovation
– investing in the net-zero economy

Climate innovation

PENSIONS FOR PURPOSE
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Research projects in 2025

Pension funds' attitudes towards venture capital
commissioned by European Women in VC

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Executive summary

Climate innovation – investing in the net-zero economy

Pensions for Purpose's new research, commissioned by ***SAIL Investments***, expresses asset owners' views on climate innovation and investing in a climate-resilient economy, with input from *Aon*

Our climate innovation paper, commissioned by *SAIL Investments*,[1] a sustainable private credit manager specialising in scaling climate and natural capital solutions across core global industries that need to transition most, sheds light on how investors are responding to the risks and opportunities presented by climate change.

We conducted 20 interviews, with 15 asset owners, one professional trustee, two investment consultants, one independent adviser and one asset manager, collectively managing over £400bn in assets.These discussions were designed to provide insights across four themes:

- Climate investment strategies.
- Risk and return.
- Asset management capabilities.
- Transition plans and implementation.

Data collection

We asked the interviewees 13 questions, aiming to gather insights into their appetite for investing in climate transition and innovation initiatives; responses to regulatory changes and environmental risks; barriers to executing sustainable strategies, including potential skills gaps to identify impactful opportunities and perceptions on risk and return performance; and the connection between climate and nature.

Best practice

The report presents five examples of best practice identified during the interviews. These showcase successful climate innovation investments from an impact and return perspective. The sample illustrates how effective climate innovation can be in practice.

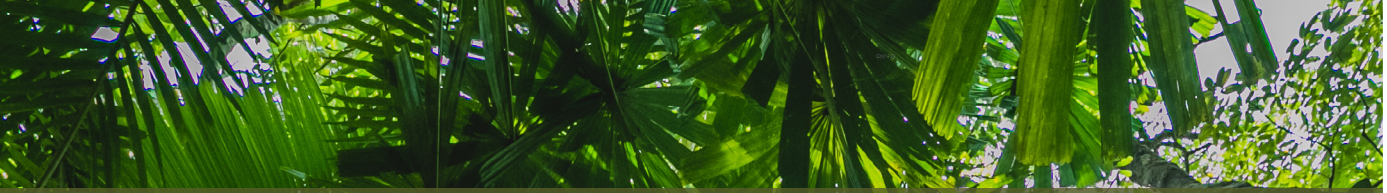
1 **Exposure** – while most asset owners (60%) reported not having a formal allocation to climate-related investments, they maintain some degree of exposure to climate solutions through their broader portfolios.

2 **Core opportunity** – infrastructure development and renewable energy projects were identified as the primary areas of investment opportunity over the coming five years.

3 **Fiduciary duty** – the majority of interviewees (60%) view climate risk as a material long-term threat and believe addressing it is a critical component of their fiduciary responsibilities, going beyond traditional fiduciary duty.

4 **Emerging markets** – most of the asset owners interviewed (87%) already consider, or are expanding, their climate investments to embrace developing economies.

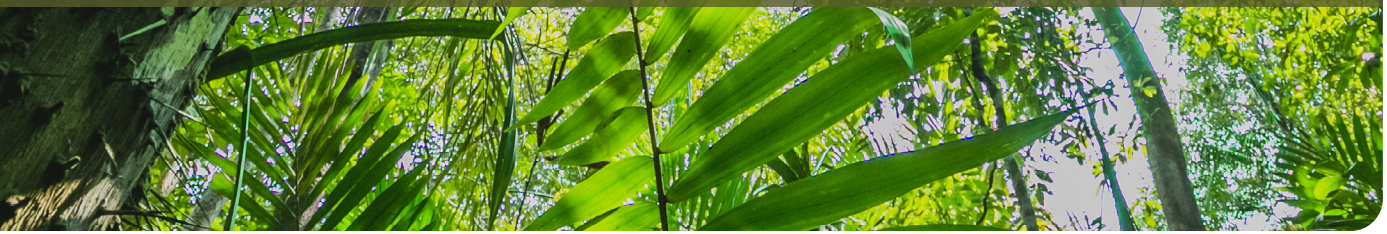
5 **Political landscape** – asset owners see political instability and environmental, social and governance (ESG) pushback, particularly in the US, as the major challenge over the next five years.



AON'S VIEW

"With economic losses from natural disasters reaching $368bn in 2024 alone, weather is a key megatrend impacting global businesses today. We believe innovation is critical to transitioning to a low carbon economy and at *Aon* we leverage our technology, analytical and data expertise to help our clients navigate this complex challenge. We are delighted to collaborate with thought leaders like *Pensions for Purpose*, which helps investors identify emerging opportunities that align financial outcomes with meaningful climate impact, such as clean energy, resource efficiency and natural capital. By investing in climate innovation, asset owners can play a transformative role in accelerating the transition to a more resilient and sustainable global economy."

CRAIG CAMPBELL,
ASSOCIATE PARTNER AND UK HEAD OF RESPONSIBLE INVESTMENT



NOTE

1 SAIL Investments is a sustainable global private credit manager headquartered in the Netherlands. It provides non-sponsored, bespoke direct lending to large mid-market corporates operating in core global industries such as food & agri, land use, and other real-economy sectors where climate, nature and ecosystem services intersect. SAIL focuses on delivering highly scalable, 'beyond climate mitigation' and nature conservation-driven investment strategies designed to meet institutional asset owners' portfolio fit and physical risk mitigation requirements.

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Introduction

Why did we conduct this research?

Richard Giles introduces this research as part of efforts to understand how UK pension funds are responding to the rapidly shifting climate investment landscape and the systemic challenges it presents

This report explores how UK pension funds are navigating the fast-evolving landscape of climate. Not long ago, climate investing was considered a niche interest. Today, it's a rapidly growing area – particularly in renewables like solar and wind, which are already well-represented across UK investment schemes.

Increasingly, asset owners are looking beyond renewable generation to the infrastructure - such as the power grid - that enables and accelerates its deployment. Future allocations are expected to emphasise diversification, with growing interest in emerging technologies that support climate goals, including battery storage. Many of these investments are being pursued through private markets.

Headwinds

Challenges identified by asset owners in making climate-related allocations, were the influence of political factors, including the backlash against ESG – particularly in the US – and rising political polarisation globally. However, most of the asset owners we interviewed have made climate change a stewardship priority and increasingly view it as an intrinsic part of their fiduciary duty, indicating UK investors are unlikely to be drawn into the ESG pushback.

Another development that supports this argument is the growing willingness of UK investors to integrate emerging markets into their climate allocations. This shift reflects a notable increase in impact literacy among UK pension funds. Just a year ago, our research, 'Real-world impact in emerging markets – an asset owner perspective', concluded UK pension funds were largely overlooking developing economies when considering impact investments.

Today, asset owners are adopting a more critical and informed approach, learning as they go. Many now recognise the importance of engaging with high emitters and supporting companies with credible and tangible transition plans, even if this means accepting higher portfolio emissions in the short term. Concepts like additionality and intentionality are gaining importance among UK pension funds as they assess the impact of their allocations.

Ecosystem Themes

UK investors are increasingly recognising the interconnectedness of climate, nature and social factors – and the importance of considering them together rather than in isolation. Their perspectives on emerging markets are also evolving, as they also recognise the importance of developing a place-based approach. Stewardship and active engagement were consistently highlighted as essential tools for driving meaningful change. Taken together, the insights from this research examine how closely these themes are linked – reflecting the Ecosystem Themes identified by *Pensions for Purpose* as those demanding a strategic, long-term commitment.

This paper was commissioned following the launch of *Pensions for Purpose's* Ecosystem Themes:

- Biodiversity & Natural Capital
- Climate Innovation
- Impact Integration
- People Value
- Place Lens
- System & Governance Change

Our vision was to group impact-related areas for investors and businesses to benefit our members and facilitate change. Each Ecosystem Theme will conduct research, bring together a Community Interest Group, create training opportunities, and use the body of work to advocate for effective policies and best practice. The Themes are long-term partnerships with a minimum three-year commitment. This ensures accountability for us, our Partners and stakeholder group in bringing about sustained meaningful progress.

Richard Giles is Senior Director & Community Lead, and Climate Innovation Ecosystem Theme Lead at Pensions for Purpose.

1 Climate investment strategies

Climate investment strategies

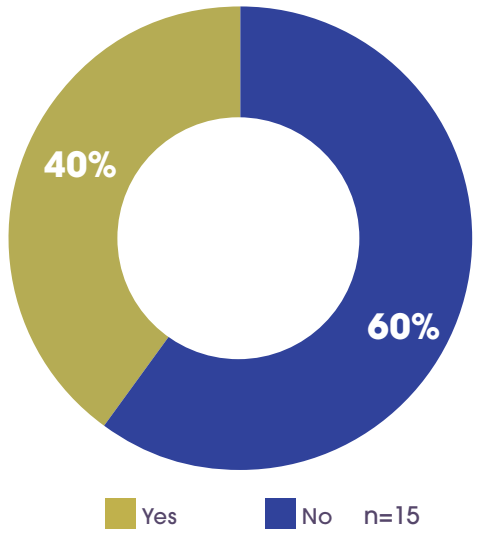
We started our conversations with pension funds by asking if they had target allocations towards climate solutions. Most (60%) do not, although they do have some exposure to those asset classes.

Establishing net-zero commitments does not translate into defining a target allocation to climate solutions. The pension funds that follow this approach have a net-zero commitment but have not set an actual target. Many say this is a conscious decision, due to three factors:

- Climate solutions can push capital towards specific asset classes, such as private equity, a concern to mature schemes that are de-risking their strategies.
- Having a dedicated climate bucket can cause the rest of the portfolio to be overlooked. Consequently, pension funds decided to avoid specific climate-related targets and consider climate across the entire portfolio.
- The definition of 'climate solutions' is still evolving, as well as how these solutions are measured.

> "We don't have a specific target allocation because we aim to integrate climate considerations into every investment. Climate risks are often mispriced in the market. By incorporating these risks into our investments, we can be substantially rewarded. We view climate risks alongside factors like illiquidity premiums and higher-risk assets."
>
> ASSET OWNER

Fig 1 | Do you have a target allocation to climate solutions?



Climate allocations – whether thought of as a target approach or not – usually translate into stronger stewardship and engagement, although collecting data remains a challenge. One scheme has partnered with *MSCI*, a provider of decision-support tools and services for the global investment community, to access the data needed for consistent measurement and tracking. Part of the scheme's approach is to conduct attribution analysis to understand where carbon emission reductions are coming from – be they through changes in asset allocation, reductions by investee companies or as a result of stewardship activities. To strengthen its stewardship, this scheme introduced new tools, including publishing a stewardship report and issuing expressions of wish during annual general meeting season.

What are climate solutions?

There is no single definition among pension funds of what climate solutions are. One pension fund described them as climate-related activities in line with the EU taxonomy for sustainable activities, focusing on mitigation, adaptation and monitoring, but mentioned it still requires further refinement.

Another asset owner connects climate solutions with intentionality: for them, an investment must be made with the explicit 'intention' of driving climate-related outcomes. However, they are having ongoing discussions with the industry to test whether this explanation is too narrow. For example, they are evaluating if their allocations to Paris-aligned benchmarks fit within their climate solutions framework.

PENSION FUNDS WITHOUT A SPECIFIC TARGET ALLOCATION

These funds emphasised the importance of integrating climate risks into all investment strategies rather than having a dedicated target for climate-related opportunities. However, they still have some exposure to climate solutions. For example, although one fund we spoke to has not set an official goal for climate-related allocations, its private market real assets team has established an ideal sector allocation in renewables, primarily determined from a traditional risk-return perspective, which could be interpreted as a de facto target.

Another fund, incorporating a 'climate lens' across the entire portfolio, mentioned a gradual approach. They initiated their efforts with equities, transitioning investment towards lower-carbon strategies. As this process expanded across the portfolio, active managers were engaged to ensure alignment with sustainability goals. In other asset classes, ESG-focused variants were chosen when available. However, these changes were made as part of broader strategic adjustments, rather than as discrete climate allocations.

PENSION FUNDS WITH A TARGET ALLOCATION TO CLIMATE

These funds follow various approaches:

1 | 'Miscellaneous bucket'

One fund, within its private markets' allocation, has investments split across private equity, credit, infrastructure and a 'miscellaneous' allocation, which comprises 3% of the private market portfolio, and includes climate and regional UK-opportunities. Although there is a specific 3% target for this category, climate-related investments are spread across all private market allocations. While renewable energy investments appear throughout the portfolio, those specifically dedicated to climate solutions are captured within the 3% miscellaneous allocation. In listed equities, all mandates are aligned with the fund's net-zero target for 2050.

> “We are return-focused. Return expectations are around 8% pa for climate opportunities targets. Initially, it grew from the need for diversification and enhancing our approach to responsible investment. With our 2050 net-zero target, there’s been increasing interest from the committee and our membership in considering climate impact more seriously.”

ASSET OWNER

2 | Target for sustainable revenues

One pension fund is aiming for 25% of the revenues from companies they invest in to be sustainable by 2030. They have progressed in measuring sustainability across their listed equity portfolios but are yet to implement this across all asset classes, particularly in private markets.

3 | Environmental asset class

One interviewee established an asset class called ‘environmental opportunities’ within their strategic asset allocation. The fund signed up to the *Paris Aligned Asset Owners* initiative in 2021 and, as part of that commitment, issued its climate action plan. This included a commitment to set a target for climate solutions investing. Using the net zero investment framework,[1] they established a formal target.

In a similar approach, another scheme has set up a ‘climate impact portfolio’ with a target allocation of 13.5% of the fund, composed of three elements:

- Climate opportunities.
- Renewables.
- Natural capital.

4 | Renewables as a sub-asset class

One scheme has set a target to invest £1.4bn in renewable energy infrastructure by 2030. The deliberate decision to set such a specific figure is to ensure the target is measurable and transparent, thereby avoiding greenwashing concerns. Initially, the target was based on projections linked to a dedicated renewable energy infrastructure mandate but subsequent additional investments in renewables across other funds have accelerated progress towards the goal. As a result, the scheme is considering widening the target and adjusting its approach.

5 | Allocation to private markets

One scheme explained every investment decision ultimately depends on financial considerations. As part of their strategic asset allocation outlook, they aspire to invest up to £40bn in sustainable transition or productive assets. This target focuses on private markets, with climate solutions representing a subset across asset classes. As the net-zero transition accelerates, particularly in the UK, they expect a substantial portion of this capital to be directed toward climate-related investments. However, they have not established an explicit, sole target for climate solutions.

6 | Sustainable revenue

One pension fund has chosen to shift its focus from ‘climate’ to ‘sustainable revenues’, expanding the conversation to sustainability, focusing on companies with a positive impact on climate or society. Currently, they measure sustainable revenues across all their listed equity portfolios and infrastructure investments. An important responsible investment policy target is for 25% of the revenues generated by the companies in which they invest to be classified as ‘sustainable revenues’, by 2030. This objective is informed by research into the capital reallocation required to achieve net zero.

Consultants’ and advisers’ views

Setting strict goals would be difficult for many funds. While target allocations to climate solutions are still uncommon, there is exposure through investments in infrastructure and carbon capture. In private markets, many underlying companies are involved in infrastructure projects, carbon capture and storage, among other initiatives. However, direct allocations to specific projects are still rare.

As noted in this quote: “A pension fund I advise has faced pressure from members of its investment advisory panel to divest from major fossil fuel companies such as *BP* and *Shell*. In response, the fund has sought to broaden the conversation. *Pensions for Purpose* encouraged greater alignment with the sustainable development goals (SDGs), moving the discussion beyond a narrow focus on fossil fuel divestment. Although the fund has a long history of investing in alternative energy, these efforts were not previously framed explicitly in terms of the SDGs. As a large fund, it has significant capacity to drive positive change while remaining focused on achieving strong financial returns.”

Professional trustee’s views

A trustee we interviewed, mentioned there is no unified approach to defining a target allocation to climate solutions. Only one of their schemes has an explicit target, as it is signed up to the *Institutional Investors Group on Climate Change (IIGCC)* net zero investment framework. As they said: “Most of my schemes have net-zero targets, but they do not include explicit allocations to climate solutions. However, they view these solutions as a means to progress toward net zero and support broader real-world decarbonisation goals”.

FURTHER INFORMATION

1 The net zero investment framework is a guide used by investors to set targets, produce net-zero strategies and develop transition plans.

1.1 Sectors and asset classes

We explored which sectors and asset classes asset owners prioritise for climate solutions. Participants' opinions varied, with some noting opportunities are more prevalent in certain asset classes like private markets and infrastructure, where identifying viable investments can be easier than in other asset classes. However, asset allocation also depends on the overall investment strategy of each scheme. For example, schemes in a de-risking phase are following more debt-oriented mandates, leading them to prioritise climate opportunities within fixed income and similar asset classes.

Asset owners generally described themselves as sector-agnostic. However, many identified greater opportunities within private markets, particularly in areas such as transition infrastructure and sustainable agriculture. Only one asset owner expressed an interest in venture capital, specifically in emerging climate technologies with future growth potential. Despite this appeal, pension funds highlighted a disconnect between their willingness to invest and the availability of projects which meet their investment criteria, as the quote opposite illustrates.

> "We're considering all the sectors and assessing individual projects on their merits to identify those that meet our risk-return criteria. One major challenge we're facing is the gap between our ambition and our ability to act, we're not finding enough investable projects that meet our requirements."
>
> ASSET OWNER

Debt: gilts and corporate bonds

One scheme, which allocates about 70% of its portfolio to fixed income assets, noted a significant share of its climate investments has been made through its debt allocation. According to them, climate solutions extend well beyond investments in renewables.

"Decarbonising existing real estate, infrastructure and even some corporates is equally important. A strategy within private debt is to specifically target high-emitting companies, focusing its investments on those with credible transition plans in place." they said. Climate-related data in fixed income is still developing. Some managers have started estimating how much of their strategies support climate solutions. For example, one pension scheme holds a global green bond portfolio accounting for 10% of its total allocation.The manager reports almost 60% of this green bond fund meets climate mitigation and adaptation goals. However, most managers are yet to provide audited or formal figures, making it hard to include this information in official reporting.

Private markets and real assets

One scheme's approach is focused on sector exposures rather than setting strict allocation goals. They outlined a preferred sector allocation within private markets and real assets towards renewables, which could be interpreted as an informal objective.

Some schemes also maintain segregated impact portfolios within their private asset allocations. For example, one pension fund investing through a pooling arrangement is specifically focusing on the development of technologies which will aid the transition to a low-carbon economy. Private markets are their primary avenue for achieving this impact; they noted. It is harder to achieve the same degree of intentionality in public markets unless selecting individual stocks, something not feasible within their investment structure. Creating a pooled listed equity fund purely dedicated to climate opportunities would be a significant challenge under their current model.

Another pension fund similarly expects the majority of climate investment opportunities to come from private markets. This aligns with a broader view that private investments offer greater intentionality – enabling investors to back projects and companies specifically for their climate impact, rather than simply purchasing secondary market assets.

Consultants' and advisers' views

While asset owners are not typically setting explicit target allocations for climate opportunities, advisers observed growing interest in impact investing and an increase in new fund launches. The focus of these funds often depends on the specific challenge being addressed – such as reducing greenhouse gas emissions or increasing renewable energy capacity. Investors can gain exposure to climate solutions through public companies as well as private market investments. More recently, there has also been a noticeable rise in interest in alternative sectors like agriculture, which can support climate-related goals and other client objectives.

Professional trustee's views

From the trustees' perspective, energy – particularly solar and wind – is already well represented across most schemes. Looking ahead, future allocations are expected to focus on diversification, with interest in emerging technologies which support climate solutions, such as battery storage. These investments are primarily being pursued within private markets.

> "The standard answer is private markets, where you have more control and can direct capital towards specific areas. But if you consider total emissions, listed equities have a broader exposure. If our stewardship efforts in listed equities can drive change, that could be more impactful because we hold significantly more listed assets and the emissions associated with those companies are higher. So, while private markets offer targeted control, the listed space holds massive potential – especially if we can mobilise bond investors as well."
>
> ASSET OWNER

Fig 2 | What is the most effective asset class to address climate change?

Most effective asset class for addressing climate change

While some interviewees argued making an impact through public markets is difficult, given investors are typically small shareholders, others argued public markets offer the greatest potential because they concentrate on high emitters, giving investors the opportunity to engage and influence corporate behaviour.

Another interviewee emphasised it is not a matter of choosing one asset class over another; each is important. Private markets allow for direct financing, provide greater visibility into where capital is deployed and offer clearer evidence of climate-related outcomes. However, thematic exchange-traded funds help to channel capital into renewable and clean technologies supporting climate change mitigation.

They also stressed achieving a net-zero transition requires more than just investing in specific climate-focused opportunities. Encouraging the economy at large to transition is equally important. Implementing climate strategies consistently across the core portfolio is as crucial as allocating to dedicated climate themes. For example, they highlighted the value of investing in 'laggards' – companies which are underperforming on climate but have significant potential to improve – through a strategy designed to accelerate their transition. Their process for selecting laggards includes:

- Transition potential – they select companies underperforming in the climate transition identified through an in-house climate change model based on implied temperature alignment, the higher the implied temperature, the greater the opportunity the company has for transition.
- Engageability – they draw on their engagement experience to identify the companies likely to be responsive and open to change.
- Valuation upside – there must be clear potential to unlock shareholder value. Companies are assessed on how they are valued relative to their peers.

PRIVATE MARKETS

Private markets were highlighted for their potential to drive innovation and offer the best opportunities, particularly through investments in companies supporting the transition to a low-carbon economy. They were also seen as an avenue for creating significant impact in emerging markets (EMs).

Capital gap

One pension fund commented that private equity and infrastructure represent the areas of greatest need and opportunity, due to a mismatch between capital required and currently committed. Sectors such as transport, utilities and industrials – with a focus on decarbonising inputs and outputs using solutions like green steel, biofuels or battery storage – still face a shortage of capital.

Potential for greater financial performance

One pension fund we spoke to is aiming to increase their allocation to illiquid private market assets to support their net-zero ambitions and sustainability objectives, while also potentially enhancing long-term customer returns. However, another raised concerns about the financial performance of climate-related allocations. They feel returns in this area over the past decade have often been disappointing. Companies previously regarded as leaders in listed markets have also underperformed. Poor historical returns naturally prompt more cautious allocation decisions going forward. They highlighted that, during a committee meeting last year, their private market exposure to climate-related investments was formally reviewed, as well as their total exposure to renewables across private markets.

More potential for tangible impact

One asset owner argued public equities often provide insufficient influence given investors are typically small shareholders. Furthermore, disinvestment or exclusions in public markets do little to meaningfully address climate issues. In contrast, private markets offer a greater opportunity to drive real change, particularly through investments in emerging technologies and impact-focused ventures. They also raised the potential of targeting smaller companies, which may have a larger relative impact, especially for the UK demographic.

REAL ASSETS/INFRASTRUCTURE

Infrastructure remains a focus within real assets.

One asset owner commented that a significant portion of their climate-related exposure lies in infrastructure investments, particularly in the wind and solar sectors.

Beyond energy generation, they also pointed to real estate opportunities, notably through retrofit programmes aimed at improving energy efficiency and reducing carbon emissions.

PUBLIC MARKETS

One asset owner assesses how much of a company's revenue or capital expenditure is directed toward climate-related activities and leveraging stewardship to influence corporate behaviour. Though attribution of impact is more complex in public markets, they believe influencing large companies to allocate more capital toward climate solutions can deliver substantial real-world outcomes. However, relying on revenue as a proxy for climate impact has limitations. For instance, a car manufacturer may report high electric vehicle (EV) sales, yet still depend on carbon-intensive and ethically problematic supply chains for battery minerals. These companies may market EVs as green solutions, driving up demand and, paradoxically, increasing overall emissions due to the production and supply chain footprint.

Quick implementation

An interviewee noted that less liquid assets, such as private markets, tend to be more impactful over the long term, even though may take time to materialise and are not always immediately visible. In contrast, public markets allow for quicker implementation and easier influence through shareholder engagement. Publicly quoted, large, diversified companies with strong balance sheets are often better positioned to support emerging climate technologies more efficiently than smaller, early-stage projects which are often not yet profitable.

Transition over divestment

Another asset owner is not pursuing mass divestment from high-emitting sectors. Instead, they prefer to support companies with credible transition plans.

Listed equities: the 'low-hanging fruit'

One interviewee pointed out passively held equities, are the 'low-hanging fruit' for climate investing thanks to the availability of high-quality emissions data. In contrast, fixed income, especially government bonds, pose greater challenges for emissions reporting due to inconsistent methodologies. However, measuring carbon emissions does not constitute a climate solution on its own. While essential for transparency, it lacks the intentionality, contribution and additionality that define climate impact.

Stewardship

Several asset owners underlined the enormous potential of listed equities to drive climate impact through stewardship. Given their broad exposure to high-emitting sectors, influencing corporate behaviour in listed markets could have a greater aggregate effect.

1.2 Nature, biodiversity and climate

We asked asset owners whether they prefer to address nature and climate with one combined investment strategy or with two separate strategies. On balance the consensus was that nature and climate are interconnected, so must be addressed together. As previous *Pensions for Purpose* research has highlighted, asset owners are increasingly treating nature as a stewardship priority alongside climate. Social considerations are also gaining in importance alongside nature and climate in investment strategies.

One asset owner noted: "Increasingly, we're viewing social considerations through the same lens. If you're shutting down a coal mine to build a wind farm, it affects people, nature and climate. All three are deeply intertwined." Another added, "while some funds may naturally focus more on nature or climate, we don't structure our portfolio to have separate 'sleeves' for each. Every asset class we explore considers impact across the SDGs."

Many asset owners are integrating nature into their climate strategies. For example, one mentioned their thematic equity strategy incorporates climate, nature and social themes. They have also invested in timber, which supports carbon sequestration and biodiversity. Historically, they focused on climate first and incorporated nature later; in new strategies, they plan to address both simultaneously.

Aligning climate and nature

Allocating to natural capital portfolios is becoming more common. A pension fund said it now considers climate and nature in any new investment, whether it is a new asset class, fund or opportunity. They already invest in a nature-specific fund (focused on biodiversity) and a climate-focused fund (green bonds), although the green bonds also include social bonds and support several SDGs.

Another asset owner explained why they use the term 'environmental opportunities': their updated climate policy now explicitly includes biodiversity, recognising climate and nature are intricately linked. They believe this broader theme helps address both issues together.

A further asset owner expressed how they view nature and climate as intertwined, but they haven't made significant progress on the *Taskforce on Nature-related Financial Disclosures (TNFD)* due to resource limitations. They expect managers in the natural capital[1] portfolio to consider nature-related outcomes. Another asset owner said nature-based investing is now part of their climate risk management strategy, though they're still working on full alignment.

Some asset owners emphasised progress on nature is still behind climate. One shared: "Over the past two or three years, we've made strides in understanding our impacts, dependencies, risks and opportunities related to nature. However, we don't yet have a dedicated investment strategy for nature." They are integrating nature into their stewardship programme but face challenges due to data limitations, which hinder their ability to make investment-grade decisions or develop benchmarks for nature. They added: "As a conservative institutional investor, we need a high level of confidence before developing a dedicated nature investment strategy, but I expect to see the two areas align more closely over time."

Two interviewed pension funds have made commitments to nature and biodiversity but haven't yet defined a clear investment strategy

in this area. One stated: "We haven't taken explicit action on nature-related disclosures yet but we have a climate action item this quarter to explore it. There's also an internal effort to increase committee education on nature-related impacts. We've considered investments in nature-based assets, like forestry, but current constraints in our investment pool have paused new allocations. The changing political landscape is also a factor – if certain political parties gain influence, their views on climate investing may challenge our plans."

Concerns around the time horizon for nature-based investments were also raised. One asset owner expressed difficulty in finding a nature-based fund which aligns with a shorter time horizon. Additionally, measuring the contributions of nature investments remains a challenge. "With climate solutions, it's easier to quantify the impact because we can measure the decarbonisation effect. But with nature, it's still challenging to determine the right metrics and how to measure contributions. Nature's impact isn't as straightforward to track as climate-related solutions," they said.

In contrast, another interviewee argued for more specific climate-focused strategies, particularly when investing in renewable energy technologies. However, for nature-based solutions, such as afforestation or reforestation, it is essential to consider climate and biodiversity:

> "For example, if you plant a portfolio full of eucalyptus trees for carbon capture, it's great for carbon but harmful for biodiversity. In these strategies, you must consider climate and nature in unison."
>
> ASSET OWNER

Finally, when evaluating companies, asset owners noted the importance of addressing climate and nature together. One mentioned while climate may be the primary focus in wind farm investments, nature-related aspects, like wildlife impacts, should also be considered.

Consultants' and advisers' views

Advisers emphasised nature and climate issues need to be approached holistically. Given the complexity and time involved, it is more practical to treat them as one extensive, interconnected topic rather than addressing them separately. While investors might align with individual SDGs, they are ultimately tackling the challenges in an integrated way.

Professional trustee's views

According to trustees, it is often easier to approach nature and climate together rather than separately. While there is growing interest in nature-related investments, challenges remain – particularly around demonstrating clear financial returns. One trustee shared while they would love to invest in opportunities like peatland restoration, the returns are uncertain, making such investments feel more philanthropic than financial. Most schemes have started to incorporate nature into their stewardship priorities, encouraging fund managers to manage nature-related risks such as deforestation and water use, even within public markets. Currently, the focus is more on reducing harm across portfolios rather than making direct, standalone investments in nature-based solutions.

DEFINITION

1 'Natural capital' refers to the world's stock of natural resources – such as soil, air, water and all living organisms – that provide the foundations for life. The term 'capital' highlights the idea nature contains valuable assets we depend on for survival and growth. For example, forests provide timber, rivers supply fish and healthy soil yields crops.

1.3 Emerging markets

We asked asset owners if they considered EMs in their climate-related strategies. Most (87%), said they already do or are expanding their climate investments to include EMs

Some asset owners invest globally, so EMs are included in their portfolios by default, though not always as a focus for climate-related investments. Some investors actively allocate to EMs, while others maintain limited or cautious exposure, often preferring developed markets (DMs) due to a range of perceived risks.

The way asset owners invest in EMs varies. Many gain exposure via global mandates, meaning their EM investments sit within wider equity, fixed income or private market strategies, rather than being separately targeted. One asset owner has a clear allocation, with around 10% of their assets under management (AUM) in EMs, split between equities and debt. Others are planning to commit to funds where EMs represent a significant share, recognising the importance of EMs in achieving the global energy transition.

Thematic approaches are also being used: for example, one interviewee has launched a nature and social outcomes fund targeting EMs, while another engages in these regions primarily through bonds in their pension business. A few are also exploring blended finance models to unlock transition investments in emerging economies.

However, political and regulatory instability were cited as a constraint; long-term transition assets require a degree of certainty which many EMs struggle to offer. Several asset owners pointed to poor data quality making it difficult to assess companies' climate transition plans. One noted, while they do invest in EMs, the lack of reliable data limits their ability to identify companies with robust climate strategies. There is also a tension between short-term reporting expectations and the long-term nature of transition investments.

Governance is another challenge. EM companies are often state-owned or family-controlled, making traditional stewardship or engagement strategies less effective. Another recurring issue is the limited capacity and expertise available to scale up EM investments. Many asset owners prefer to invest in DMs where they have stronger research capabilities. As a result, while some are launching EM-focused strategies, most are cautious and incremental in their approach.

However, as previous *Pensions for Purpose* research has shown, active strategies – such as having 'boots on the ground', placing the right people in the field who understand the local context, and building strong relationships with companies – can make a real difference. Understanding the context is crucial; rather than simply directing organisations to change, it is more effective to understand what motivates them to want to change and to build the transition plan collaboratively.

Despite these issues, asset owners widely recognise EMs must be part of the global climate transition. understanding excluding them would be short-sighted, given many of the most carbon-intensive economies are located in emerging nations. Meaningful, global progress requires supporting the transition in these regions, but asset owners continue to balance this need against their fiduciary duty to deliver returns.

Asset owners who are not investing in EMs gave similar reasons to those who do. They do not believe the returns would adequately compensate for the risks, particularly in foreign exchange, geopolitics and physical climate impacts.

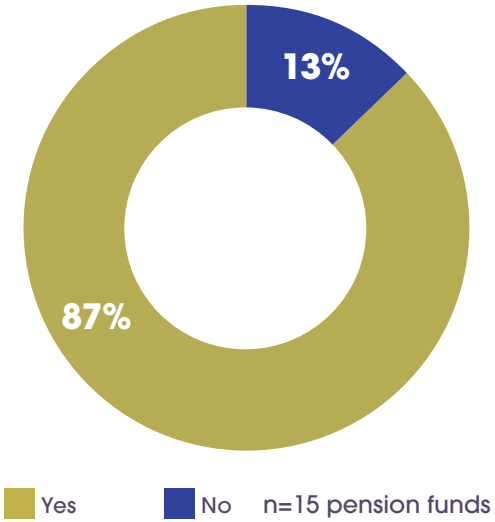
Consultants' and advisers' views

According to consultants and advisers, EMs have more scope for impact and innovation, but transparency and data quality often present challenges. The UK, on the other hand, offers greater transparency, even if it doesn't always provide the best opportunities. One noted, "There's a tendency to prioritise our own backyard, especially for local government pension schemes (LGPS)." In contrast, pursuing ESG objectives on a global scale is much more convoluted. Political developments, particularly under the new US administration, have further complicated the landscape. Although resistance to ESG had been growing in some US states with strong ties to fossil fuels, Trump's stance has brought the issue back into the spotlight and emboldened some to push back against ESG initiatives. However, in the UK and Europe, there is a stronger and more consistent recognition of the importance of climate issues. Even if climate is not at the very top of the agenda everywhere, it remains a high priority," they said.

Professional trustee's views

With defined contribution (DC) schemes, particularly larger ones, there is growing pressure to invest in UK private markets to meet climate goals and domestic investment priorities. DB schemes have historically focused more heavily on the UK, partly because domestic projects tend to align better with their long-term liabilities. However, there is now a shift toward thinking more globally, with greater consideration being given to EMs where the potential for impact could be even greater.

Fig 3 | Do you consider EMs for your climate-related investment allocation?



Insight: Most pension funds do not have a target allocation for climate solutions, although they do have exposure. Nature and climate are interconnected, and there was general agreement they must be addressed together, despite varying levels of expertise across both. Social considerations are also gaining importance. Geographically, while there is interest in promoting local investments, 87% of asset owners are already considering or are expanding their climate-investments to include EMs.

PENSIONS FOR PURPOSE'S PERSPECTIVE

Pension funds are looking beyond climate risk and actively seeking opportunities in this space. They are learning from past experience and developing in-house expertise, which will shape their future climate-related allocations. The integration of a social perspective alongside nature and climate is a promising development, as is their growing willingness to include EMs in climate strategies. Our previous research raised concerns that such allocations may increase portfolio emissions, but this is changing, with pension funds now placing greater emphasis on engagement and supporting the transition by working with high emitters.

2 Risk and return

Risk and return

While financial returns and risk remain the foundation of investment decision-making, climate-specific key performance indicators (KPIs) and robust risk assessments are becoming central to strategy, reporting and stewardship.

Interviews with asset owners reveal a growing maturity in integrating climate metrics into broader portfolio frameworks. Emissions data, particularly Scope 1 and 2, are the most common entry point, with some investors also considering Scope 3 and temperature alignment. However, emissions metrics alone are insufficient. Many asset owners are expanding their focus to include avoided emissions, stewardship outcomes and alignment with sustainable finance taxonomies, particularly in private markets where tailored, impact-specific KPIs are more feasible.

Nature-related KPIs are still emerging, mainly in sectors like regenerative agriculture or forestry, although their broader integration is hindered by data constraints and methodological gaps. Meanwhile, stewardship KPIs, though often qualitative, are seen as essential, especially in externally managed listed equity portfolios.

Risk assessment is also evolving, with climate now widely viewed as a material financial risk. Asset owners are conducting transition and physical risk assessments, increasingly aligned with frameworks like *The Taskforce on Climate-related Financial Disclosures (TCFD)*. However, gaps within the data, especially on physical and nature-related risks, remain a deterrent.

Asset owners emphasise addressing climate risk is integral to fiduciary duty. Far from being a trade-off, climate-aligned strategies are seen as essential for securing long-term, sustainable returns.

2.1 Key performance indicators (KPIs)

As investors increasingly seek to align capital with climate goals, robust and evolving climate-specific KPIs are becoming essential tools for measuring risk and real-world impact

As institutional capital increasingly flows towards climate-related investments, the development and application of meaningful KPIs has become central to climate strategy.

While traditional financial metrics such as risk and return remain foundational, climate-specific KPIs, ranging from emissions data to qualitative stewardship assessments, are growing in prominence. However, the diversity of approaches, data constraints and methodological inconsistencies present challenges.

Over the following pages, we highlight how asset owners are measuring climate-related performance. While financial returns remain central, a growing range of metrics are being used to track progress and support informed decision-making, including:

- Financial performance.
- Emissions metrics.
- Avoided emissions.
- Nature-based metrics.
- Private markets.
- Stewardship KPIs.
- Barriers to implementation.

1 Financial performance – remains the primary benchmark, even for climate-focused investments. Climate-related strategies are expected to integrate into the existing risk-return architecture of the overall portfolio, rather than being assessed in isolation.

By demonstrating climate decisions are made within a disciplined, strategic framework, asset owners are able to counter the argument climate investing necessarily entails sacrificing returns.

> “Risk and return are the core metrics, especially for illiquid assets. As conservative institutional investors, we seek long-term, stable returns.”
>
> ASSET OWNER

2 Emissions metrics – the measurement of emissions[1] is a common starting point for evaluating climate performance, with particular emphasis on Scope 1 and Scope 2. Some asset owners are also beginning to engage with Scope 3 emissions and temperature alignment, recognising their growing materiality and relevance to long-term value.

> “We use a range of climate-related metrics across the portfolio, including those in our *TCFD* reporting, absolute emissions, emissions intensity and temperature alignment.”
>
> ASSET OWNER

Some schemes reported using an emissions-tracking framework across all default funds, integrating climate metrics beyond simple carbon data.

> "We focus on two factors: whether emissions are falling over time and whether a company's trajectory aligns with a 1.5°C pathway. Even if current emissions are high, a credible alignment with 1.5°C supports a positive long-term outlook."

ASSET OWNER

> "We track several responsible investment metrics across our default funds, including financial returns, Scope 1, 2 and 3 emissions, the number of climate-related company engagements, allocation to climate solutions, net-zero targets across default funds, carbon footprint, climate value at risk, implied temperature rise and voting alignment scores."

ASSET OWNER

3 **Avoided emissions** – in renewable energy or climate solution investments, avoided emissions[2] were frequently cited, especially within private markets. However, while avoided emission are useful as a supplementary metric, they are not yet considered robust enough to anchor to performance evaluations without careful contextualisation.

> "We also track avoided emissions but approach this metric with caution. While avoided emissions are common in climate solution assessments, the underlying assumptions require scrutiny. Even in the case of renewable energy, factors such as grid composition and transmission losses complicate the analysis."

ASSET OWNER

4 **Nature-based metrics** – some asset owners, particularly those with exposure to land-use or regenerative agriculture, have begun exploring nature-related KPIs but uptake remains limited.

> "In our nature-based portfolio, we apply certain rules, if not formal KPIs. For example, we require investments to be deforestation-free and demonstrate permanence, particularly in cases involving carbon credits."

ASSET OWNER

> "For regenerative agriculture, we consider soil carbon levels as an indicator of carbon sequestration."

ASSET OWNER

However, broader application in listed markets or traditional asset classes remains rare, often due to resource constraints and lack of standardised metrics.

> "There's limited engagement on nature-related issues in public markets. We've raised concerns around palm oil and resource usage, but our primary focus has been climate. Resource constraints have limited our capacity to address other environmental concerns in depth."

ASSET OWNER

5 **Private markets** – asset owners reported greater flexibility to tailor KPIs to the specific impact objectives of each mandate in private markets. This includes metrics related to direct emissions reduction, climate adaptation and broader sustainability outcomes.

Some are beginning to integrate KPIs aligned with emerging sustainable finance taxonomies to ensure greater comparability and reporting rigour.

One asset owner noted they are developing KPIs for private market strategies, particularly those aligned with sustainable finance taxonomies, which will likely involve tracking the proportion of taxonomy-aligned investments through quantifiable metrics.

> "In private markets, KPIs are often quantitative, such as CO_2 avoided or increased climate resilience in communities. These are tailored to each mandate and each investment is monitored for impact."

ASSET OWNER

6 **Stewardship KPIs** – although stewardship-related KPIs are more qualitative, interviewees consistently emphasised their importance, particularly for listed equity portfolios managed externally. KPIs in this area often include frequency, focus and quality of engagement, as well as voting alignment on climate-related issues.

The ability of asset managers to execute effective, transparent engagement strategies is seen as a core performance indicator, even when numerical tracking is limited.

> "Qualitative insights are critical, particularly in stewardship and engagement reporting. Within our listed equity fund, we utilise split voting and conduct focused engagements with approximately 50 companies annually, selected by our asset manager."

ASSET OWNER

7 Barriers to implementation – despite clear intent, several asset owners pointed to barriers that limit their ability to fully implement climate-related KPIs. Data availability and quality were cited as particular challenges, across managers and asset classes.

Others noted structural limitations within the market, particularly the lack of scalable, investable climate opportunities, as a constraint to achieving impact-aligned KPIs.

> "We're actively working to improve our reporting capabilities but data inconsistency across managers remains a major challenge."

ASSET OWNER

> "There is a shortage of investable projects. When attractive opportunities, such as offshore wind, do arise, they are often won by banks, which have a higher risk tolerance."

ASSET OWNER

> "We hope initiatives like the *Clean Power 2030 Action Plan*, the *National Wealth Fund* and *GB Energy* will help increase the volume of viable projects and introduce blended finance structures to help de-risk investments."

ASSET OWNER

Insight: While financial metrics remain central for investment evaluation, climate-specific KPIs are becoming essential to tracking risk and impact. Emissions metrics are well-established and continue to evolve, while avoided emissions, nature-related indicators and stewardship metrics add layers of insight, despite ongoing methodological challenges. Private markets allow for more tailored KPI development, while public markets have greater reliance on qualitative assessments and third-party stewardship. However, across the board, missing data and market limitations constrain implementation.

PENSIONS FOR PURPOSE'S PERSPECTIVE

Beyond managing risk, metrics like emissions, avoided emissions and nature-related indicators help investors understand their contribution to climate solutions. While gaps in the data and methodological challenges remain, evolving standards will enhance consistent integration. As KPIs mature, asset owners have an opportunity to make capital a catalyst for a more sustainable and resilient future.

REFERENCES

1 **Carbon Containment Lab, 2023**, Do Emission Metrics Measure Up? Global Warming Potential and Other Emission Metrics, explained, viewed April 2025, <https://carboncontainmentlab.org/publications/emission-metrics>.

2 **Arbor, 2024**, What are Avoided Emissions?, viewed April 2025, <https://www.arbor.eco/blog/what-are-avoided-emissions-carbon-101>

2.2 Assessment of financial risks

As climate risks become increasingly material to investment outcomes, asset owners are examining how to integrate these factors into their financial risk assessments. Still, approaches vary across organisations.

Frameworks & scenario analysis

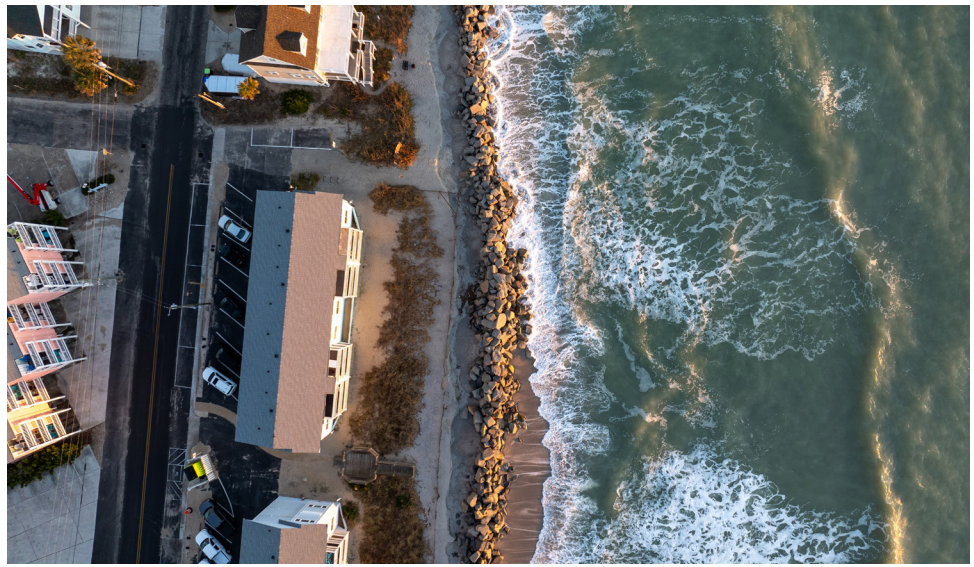
Asset owners are integrating climate risk into their financial assessments by aligning with established frameworks such as the *TCFD*. These models provide structure for assessing and reporting on climate risks, enabling them to account for long-term climate risks in their portfolio. One asset owner explained, "We align our assessments with *TCFD* recommendations, using quantitative and narrative scenario analysis to evaluate potential impacts on our investments."

Others run quantitative and qualitative scenario analyses: "We conduct quantitative and qualitative scenario analyses across our portfolio, covering transition and physical risks. Our transition risk assessments are based on *Network of Central Banks for Greening the Financial System* scenarios, with overlays we develop internally," one asset owner said.

Transition and physical risks

Asset owners are increasingly evaluating transition and physical risks, which helps them understand how regulatory shifts (transition risks) and climate-related physical hazards (physical risks) could impact asset valuations and, ultimately, returns.

- Transition risks: more quantifiable and involve changes in regulations, policies and market behaviour that can affect the financial value of the asset.
- Physical risks: harder to assess, for example, extreme weather events or rising sea levels, but critical to risk evaluations.



"We analyse climate transition and physical risk within the portfolio. We manage many assets in-house and are now requesting that data from external managers as well."

ASSET OWNER

"Transition risks are easier to assess but physical risks are more difficult. While we get some data on hazards, there's limited information on resilience measures and supply chain risks are almost completely unreported. This is an area where we're actively seeking better data."

ASSET OWNER

Integration of climate risk into governance and strategy

Asset owners are increasingly recognising addressing climate risk is a core component of strategic financial planning.

- **Board-level oversight:** many asset owners report climate risk is considered at the board level, ensuring climate-related financial risks are properly integrated into portfolio management: "This feeds into our portfolio construction and trustee policies. We do the same for nature risk, though that's been more of an exposure assessment" one asset owner highlighted.
- **Policy implementation:** climate risk is addressed through formal policies, with investment decisions aligned with long-term climate objectives, as stated by one asset owner: "We have a climate change policy that includes risk management objectives, which we implement through asset allocation, fund manager selection, monitoring, stewardship, and engagement with regulators and standard setters."

Data quality challenges

While progress is being made, asset owners continue to encounter limitations with data quality and methodology in their climate risk assessments. The accuracy and consistency of climate data is critical for informed decision-making, but gaps and uncertainties remain, particularly in the assessment of physical risks and nature-related risks.

Current tools may not fully capture the complexities of climate risk, especially when considering the systemic impacts of physical risks.

> "We use various metrics, they're not perfect and there are data gaps, but we try to assess transition and physical risks, along with carbon emissions and temperature alignment."

ASSET OWNER

Addressing biodiversity risks

Nature-related risks, particularly biodiversity risks, are gaining prominence in financial risk assessments. While these risks are yet to be fully integrated into many portfolios, some asset owners are beginning to assess exposure to nature-related risks, particularly in sectors vulnerable to biodiversity loss.

Though not as advanced as climate risk assessments, organisations are starting to use tools and are conducting exposure assessments to understand the financial implications of biodiversity loss and resource scarcity.

> "For nature, we've used *MSCI* data, looked at exposure to the *Global Canopy 500* companies and examined biodiversity-sensitive areas."

ASSET OWNER

Insight: Physical and transition risks were cited as material and combined, impacting asset valuations across sectors. Some schemes focus on sectors most exposed to policy shifts, for example, energy, while others emphasise the compounding risk of stranded assets. A common theme was climate risk has to be financial, since it is deeply embedded in long-term value. Regulatory developments, scenario modelling and tools are helping funds refine how they assess and respond to these risks.

PENSIONS FOR PURPOSE'S PERSPECTIVE

Recognising climate-related financial risks is no longer optional, it is important for directing capital towards a more sustainable future. Climate risk is fundamentally financial, and managing it is critical to preserving long-term value and supporting a resilient economy. Evolving regulation and better tools will help funds move from the awareness phase to action, embedding climate into core investment decisions.

2.3 Fiduciary duty

Fiduciary duty remains the cornerstone of investment decision-making for pension funds and institutional investors. Traditionally defined as the obligation to act in the best financial interests of scheme members, this duty is increasingly being interpreted to include the management of long-term ESG risks, particularly those related to climate change[1]. The majority of asset owners (60%) agreed climate change constitutes a material financial risk and fits therefore firmly within the scope of fiduciary duty. However, the manner in which this duty is interpreted and put into practice varies greatly across organisations.

Climate change as an inherent financial risk

Interviewees consistently emphasised climate-related risks are intrinsic to fiduciary duty. Several asset owners described climate change as a long-term, systemic risk with clear financial implications for portfolio performance and member outcomes.

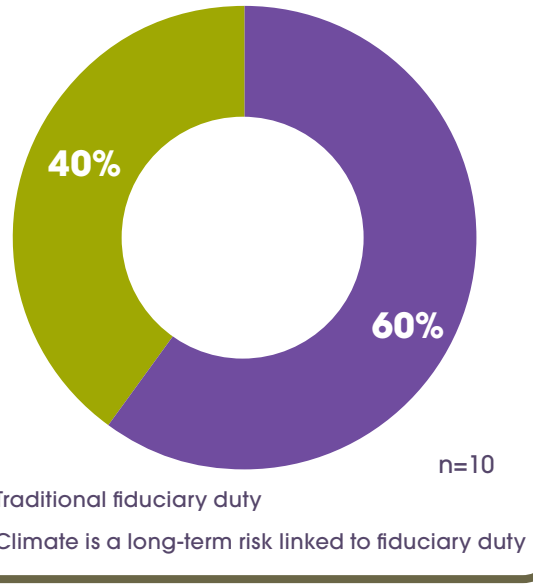
> "Ultimately, it comes down to delivering good outcomes for members. Trustees believe considering climate risks leads to better financial outcomes, which is at the core of fiduciary duty. If those risks are linked to returns and clearly documented in policies and processes, then fiduciary duty is being met."

ASSET OWNER

> "We take the view climate change is a long-term and probably the most significant risk to our portfolio. Our fiduciary duty involves ensuring we're managing that risk and aligning our strategy with a net-zero pathway."

ASSET OWNER

Fig 4 | Climate strategy alignment with fiduciary duty[2]?



> "It's challenging, no doubt. We have experienced some underperformance within the fund as a result of being underweight in energy stocks since 2022. Any investor who's been underweight in energy would have seen similar underperformance. That said, our view remains, as long-term investors, we're managing long-term risk and that means we'll be better positioned to meet our long-term fiduciary objectives: to pay pensions in 20, 30, 40, even 50-60 years' time."

ASSET OWNER

Across our interviews, there was a shared understanding of climate risk and financial risk being increasingly inseparable. Many asset owners described integrating climate risk as compatible with fiduciary obligations and, indeed, essential to fulfilling them over the long term.

Managing long-term risk and short-term performance pressures

A number of interviewees acknowledged the challenges associated with balancing climate-aligned investment approaches with short-term

performance expectations. Several asset owners reported recent underperformance, often linked to underweighting traditional energy sectors. However, they emphasised the importance of maintaining a long-term perspective.

This perspective reflects a broader consensus among interviewees: while short-term volatility may arise from climate-aligned positioning, such strategies are expected to strengthen long-term portfolio resilience and support the delivery of sustainable member benefits.

Legal interpretation

Despite the growing recognition of climate risk as a fiduciary issue, many asset owners expressed concerns about limited clear legal guidance as stated by one asset owner, "It would be helpful if the government provided some clear legal guidance on fiduciary duty, because it's still a grey area and remains problematic."

Some of the pension schemes we spoke to, have sought to address this uncertainty by commissioning independent legal advice to ensure their climate strategies align with their fiduciary obligations: "The trustees are very engaged in this area. They commissioned legal advice to ensure integrating climate considerations aligns with our fiduciary duties. We aim to ensure fiduciary duty isn't changed by climate concerns, but that we can incorporate fiduciary duty appropriately into our investment strategy," said one asset owner.

Varying degrees of integration

While most asset owners interviewed shared a strong commitment to climate considerations, the extent to which these were embedded in investment decision-making varied. Some schemes reported having fully-integrated climate risk across governance structures, investment policies and performance metrics. Others were still developing their approach, often delegating responsibility to asset class teams or relying on case-by-case assessments.

> "Right now, it's straightforward. We don't have climate-specific targets or objectives, so every investment is made under traditional fiduciary duty. We help asset class teams identify solutions and they determine alignment with our fiduciary duty."
>
> ASSET OWNER

Insight: Asset owners recognise climate risk is embedded in financial risk and long-term investment strategies must account for it to safeguard member outcomes. While practices differ, there is a shared understanding responsible stewardship of assets in the face of climate change is a prudent risk management approach and a fiduciary necessity.

PENSIONS FOR PURPOSE'S PERSPECTIVE

A growing consensus among asset owners affirms addressing climate change is compatible with, and ultimately central to, fiduciary duty. Climate risk is now commonly understood as a financial risk and long-term strategies must reflect this to safeguard beneficiaries' futures. Regulatory support and peer learning will accelerate this shift, empowering asset owners to align financial responsibility with meaningful climate change.

NOTE & REFERENCE

1 **Financial Markets Law Committee (FMLC), 2024**, Pension Fund Trustees and Fiduciary Duties: Decision-making in the context of Sustainability and the subject of Climate Change, viewed April 2025, <https://ow.ly/qYff50W0K6B>.

2 The question of how climate strategy aligns with fiduciary duty was not addressed in all interviews due to time constraints; therefore, the number of responses is lower than the total number of asset owners who participated in the research.

2.4 Time horizons

When assessing the returns of climate-innovation investments, asset owners consistently stressed the importance of long-term thinking. There was a strong consensus patient capital and extended investment horizons support climate-related innovation, particularly in private markets, infrastructure and real assets. Short-term volatility was not a major concern, providing risks were understood and returns remained competitive over time.

Long-term

A defining characteristic of climate-innovation investment strategies is their inherently long-term orientation. Many asset owners stated their investment strategies already operate on extended time horizons, aligned with the multi-decade obligations of pension schemes and long-term member outcomes. As such, climate-innovation investments were seen as a natural fit within this framework.

> "We don't treat them differently from other investments, it's all long-term."

> "The average default investor is around 40 years old, so we look at a 20-25-year horizon."

> "We are long-term investors, expecting positive returns over at least one economic cycle."

ASSET OWNERS

> "We treat short-term volatility in the same way as we would for other investments. It's about understanding the cause. For example, we assess if underperformance is due to sustainability-focused selection. That context is critical. Our diversified allocation helps us manage volatility across asset classes, though macroeconomic factors are the bigger concern."

ASSET OWNER

This mindset was especially pronounced in relation to private and illiquid markets, where long lock-up periods and multi-year investment lifecycles are standard. Interviewees emphasised long-term thinking was not specifically related to climate investments but an established part of institutional investment culture.

Managing short-term volatility

While long-term value creation was the primary focus, short-term volatility was not dismissed entirely. Several asset owners noted understanding the source of volatility is crucial in determining whether it poses a genuine concern. It was often viewed differently when stemming from broader macroeconomic or geopolitical factors versus company-specific or strategy-specific issues.

Time horizons differ by asset class

Although the importance of long-term thinking was consistently mentioned, interviewees noted time horizons vary by asset class. For example, investments in infrastructure or private equity were associated with longer-holding periods, while listed equities or private debt tended to operate on shorter cycles.

> "The time horizon depends on the asset type. Private debt funds tend to have a shorter life than private equity, and infrastructure funds have a longer life."

ASSET OWNER

> “An infrastructure asset class is from 15 to 20 years when you’re looking across the entire piece. If you’re looking at private markets, that may be five to 10 years. If it’s listed, then you would expect to see some level of share price performance on an annual basis.”
>
> ASSET OWNERS

This differentiation in investment durations allows investors to balance portfolios across different liquidity profiles and return expectations, helping them reach long-term goals and manage short-term funding needs.

Insight: Asset owners expressed confidence in deploying patient capital, particularly in private and illiquid markets, where investment timelines of 10 to 20 years or longer are commonplace. While short-term volatility is monitored and managed, it is rarely seen as a constraint to investment, as long as its underlying causes are understood and the broader investment thesis remains intact. Expectations around time frames are shaped by the nature of the asset class.

PENSIONS FOR PURPOSE’S PERSPECTIVE

Climate innovation demands long-term thinking, not just in capital deployment but also in ambition. Asset owners are increasingly embracing the position of patient investors, recognising meaningful change unfolds over decades, not quarters. This mindset allows for investments which are aligned with the pace of systemic transformation.

3 Asset management capabilities

3 Asset management capabilities

Interviews with asset owners revealed a strong and growing consensus: asset managers are seen as essential actors in achieving financial and climate-related outcomes. They should also act as proactive partners in executing climate-aligned strategies.

These expectations are structured around five core investment themes:

1 Climate alignment.
Asset owners expect managers must justify high-emitting assets with credible, transparent transition plans.

2 Stewardship and engagement.
Active stewardship is expected, especially in public markets.

3 Differentiated strategies.
Approaches should vary across public and private markets.

4 Climate KPIs and measurement.
Managers must track real climate outcomes.

5 Frameworks and tools.
Alignment with credible frameworks signals climate intent.

Fig 6 | Asset owners' expectations of managers in executing climate investments

1 Climate alignment – asset owners consistently stressed managers must be able to explain and defend climate-relevant decisions, particularly the inclusion of high-emitting assets in portfolios. Rather than applying blanket exclusions, our interviewees favoured a pragmatic approach which demands transparency and a credible case for transition alignment.

Interviewees cited examples, such as investments in high-emitting but transitioning sectors in EMs, to highlight the importance of nuanced decision-making: "We've looked closely at a Chinese cement company. On the surface, the company's emissions footprint is enormous. But when we dug into how they're reducing the carbon intensity of their production process, we saw genuine progress."

> "Our expectation is where there are high-emitting companies within the portfolio, the asset manager should be able to defend that position, to justify that investment, by showing the company is net-zero aligned."
>
> ASSET OWNER

2 **Stewardship and engagement** – through active ownership, proxy voting and engagement, stewardship has emerged as an expectation asset owners have of managers, particularly in public markets. Interviewees viewed it as a vital tool to drive change where direct influence is limited.

One asset owner explained: "We don't engage directly with corporate bond issuers, we're too small to have clout, but for outsourced equities and high-yield funds, we expect managers to engage and vote on our behalf. Climate is one of the topics we expect them to cover."

Crucially, asset owners emphasised stewardship must be systematic and integrated, rather than reactive or ad hoc. In this sense, asset managers are expected to act as an extension of the asset owner's own climate commitments.

> "We want to understand how managers identify systemic climate risks and how they act on them, through voting, engagement or exclusions."

ASSET OWNER

3 **Differentiated strategies** – expectations are not 'one-size-fits-all'. Interviewees pointed to the need for differentiated strategies based on asset class, particularly between private and public markets. The emphasis was on long-term strategy and credible transition planning across the lifecycle of high-emitting assets in private markets.

In public markets, asset owners expected managers to remain agile and responsive to short- and medium-term climate risks, particularly around listed equities.

This distinction reflects broader expectations around stewardship and climate integration. In private markets, asset owners prioritise active ownership, seeking clear pathways for decarbonisation and value preservation. In contrast, public markets demand nimbleness, investment managers must rapidly adapt to evolving regulations, shifting market sentiment, and emerging climate-related financial disclosures across geographies and sectors

> "For private markets: do they have a transition plan for high-emitting assets? Is there a green strategy for specific assets? For instance, if we're holding a power plant, will it remain that way for our full investment period? What does exit look like in five years?"

ASSET OWNER

> "In public markets, it's more about managers staying ahead of short- to medium-term requirements related to transition or physical risk."

ASSET OWNER

4 Climate KPIs and measurement – measurement and accountability featured prominently in interviews. Asset owners want asset managers to move beyond reporting activities (outputs) and instead deliver measurable progress (outcomes). The ability to set and track climate-specific KPIs is now seen as fundamental.

These expectations are reinforced through regular monitoring and performance reviews, often including formalised metrics tied to real-world climate impact.

The rise of KPI-driven evaluation reflects the integration of climate accountability in institutional asset management.

> "I expect asset managers to have clear outcomes in mind. They need to differentiate between outcomes and outputs, which many fund managers don't fully understand. They must have controls in place to avoid greenwashing."
>
> ASSET OWNER

5 Frameworks and tools – while some regulatory initiatives such as the *UK Green Taxonomy* have been paused, frameworks like the net zero investment framework (NZIF) remain widely used and respected. Several interviewees pointed to these tools as helpful guides in setting strategy and evaluating progress.

Even where frameworks evolve or become uncertain, asset owners still expect managers to demonstrate alignment with credible standards – reflecting strategic intent and regulatory awareness.

> "We expect investments to align with the net zero investment framework's climate solutions criteria. While the taxonomy is paused, we and our manager still use NZIF guidance to support our Paris-aligned commitments."
>
> ASSET OWNER

Insight: Climate KPIs, transition plans and evidence of real-world outcomes (not just outputs) are increasingly standard. Private and public markets require tailored approaches but the direction is clear: asset managers are no longer passive implementers, they're active climate actors, expected to deliver on financial and environmental performance. This shift means demonstrating measurable progress against science-based targets, aligning with credible climate scenarios, and embedding climate risk and opportunity assessments into decision-making. Asset owners now expect regular reporting, transparency on methodologies and accountability for impact, not just intent. Climate leadership is becoming a baseline expectation, not a differentiator.

PENSIONS FOR PURPOSE'S PERSPECTIVE

Expectations of asset managers on climate strategies is growing. Asset owners are increasingly seeking justification for high-emitting holdings and proof of credible net-zero alignment, especially in challenging sectors or regions. Stewardship, voting and engagement are becoming essential, with clients monitoring actions and impact. Climate KPIs, transition plans and evidence of real-world outcomes are gaining traction. While approaches vary by market, asset managers are expected to actively contribute to financial and environmental outcomes.

4 Transition plans and implementation

4 Transition plans and implementation

We received a range of nuanced responses when we asked asset owners whether they have a transition plan to achieve net-zero emissions. Only four of our interviewees mentioned not having a formal transition plan, although they are taking steps towards net zero goals. Below, we review the different approaches, each reflecting distinct priorities:

Climate action plan

One asset owner shared, while they don't yet have a transition plan in place, they are in the process of developing a climate action plan:

"While we haven't committed to net zero, we're developing a climate action plan. We need to ensure our managers and assets are ready for the low-carbon transition, and that our assets are future-proofed for adaptation and transition. Our climate action plan focuses on three pillars:

- Integration: we need to integrate climate risk.
- Investment in solutions and transition: we want to track this using the right taxonomy.
- Stewardship: this includes guiding assets through the transition and providing climate solutions, possibly through changes in business models."

In a similar approach, another pension fund has set a 'net-zero action plan', aiming to reach net zero by 2030. However, gathering data from private markets is a challenge. According to them, without full visibility across all parts of the portfolio, achieving net-zero targets is difficult:

"We have a net-zero action plan and our *TCFD* report outlines the short-term steps we're taking. Our goal is to reach net zero by 2030. While I've been clear we probably won't fully reach that target by 2030, we're committed to getting as close as possible. We'll be on track well before 2050, which is the industry standard. The biggest challenge is insufficient reliable data, especially in private markets. I have good data for our listed equities and credit portfolios, but 95% of private market managers aren't providing the information we need to accurately measure climate impact."

Climate policy and roadmap

Another pension fund prefers to avoid investing heavily in a transition plan which may require significant revisions if requirements change.

They intend to evolve their current roadmap into a full transition plan once the regulatory environment becomes clearer. They have a climate policy in place and a plan with interim targets for 2025 and 2030. They are also involved in the *Transition Plan Taskforce (TPT),* contributing to the development of industry guidance for asset owners.

Focus on decarbonisation targets

Another pension fund, while not yet having a formal transition plan, has been aggressive in setting decarbonisation targets. They have already achieved approximately 84% carbon reduction. However, reaching the final 20% has proven challenging, although they remain committed to achieving net zero well before 2050. Their focus is on balancing further decarbonisation efforts with the financial realities of maintaining a diversified portfolio.

Transition at the asset-level

A pension fund with a transition plan in place has adopted an asset-level approach to manage their transition. Using the NZIF, they track the alignment of individual assets, engage with managers and monitor commitments. They have set decarbonisation targets for the short, medium and long term, some linear and others more flexible. This structured approach helps guide their journey, though certain asset classes, such as fixed income, are harder to assess.

For effective climate solutions, they emphasise the importance of precise external reporting: it is not enough to simply call something 'a wind farm'. A clear taxonomy is essential for making authentic, measurable commitments. While they do not face the complexity of managing multiple asset managers, they do gain valuable insight into their managers' climate risk management, including their engagement programmes and governance frameworks. Another challenge is resourcing, as understanding the full implications of net-zero goals across a multi-asset fund requires significant effort.

Plan under *TPT* guidance

Finally, another asset owner published their transition plan in 2023 and aims to update it every three years. Their interim targets include a 25% reduction in emissions intensity across their listed equity and credit portfolios by 2025, and a 50% reduction in carbon intensity across all controllable assets by 2030. However, they noted an ongoing discussion – internally and across the industry – about what they truly 'control', especially in sovereign debt. While sovereign bonds are included in their targets, they are reassessing whether this is appropriate, given their limited ability to influence these assets.

Consultants' and advisers' views

Although some schemes have stated ambitions to reach net zero, they don't always have detailed procedures. Instead, they often monitor the progress of their fund managers. Many underlying funds now have transition plans, typically aiming for 50% carbon intensity reduction by 2030 and full net zero by 2050. For DC schemes, many default funds already have these targets built in. So, schemes may be adopting them indirectly, even if it's not written explicitly. in their own policies, through their selection of default investment options that align with broader market transition goals.

Insight: Asset owners are progressing toward net zero, even without formal transition plans, through diverse strategies like climate action plans, decarbonisation targets and asset-level frameworks. Common challenges include insufficient reliable data – especially from private markets – and uncertainty in defining control over certain assets like sovereign debt.

PENSIONS FOR PURPOSE'S PERSPECTIVE

While many funds have made net-zero commitments, the approach to achieving these goals varies – each fund must adopt the strategy that best fits its structure and capabilities. Industry frameworks, such as the NZIF and the *TPT* are available to provide structured guidance.

5 Climate investment challenges and opportunites

5 Climate investment challenges and opportunities

We questioned interviewees on the greatest opportunities and challenges in climate innovation over the next five years. Opportunities identified were concentrated around energy and infrastructure, while challenges were seen as within the political landscape.

Infrastructure

Alongside renewables, infrastructure was often mentioned, given they must advance together. Central opportunities include areas like grid infrastructure, energy storage and distribution systems, which are essential to make renewable energy more reliable. Beyond energy, green infrastructure such as EV-charging networks and sustainable urban development also present growing investment opportunities, aligned with the global move towards decarbonisation.

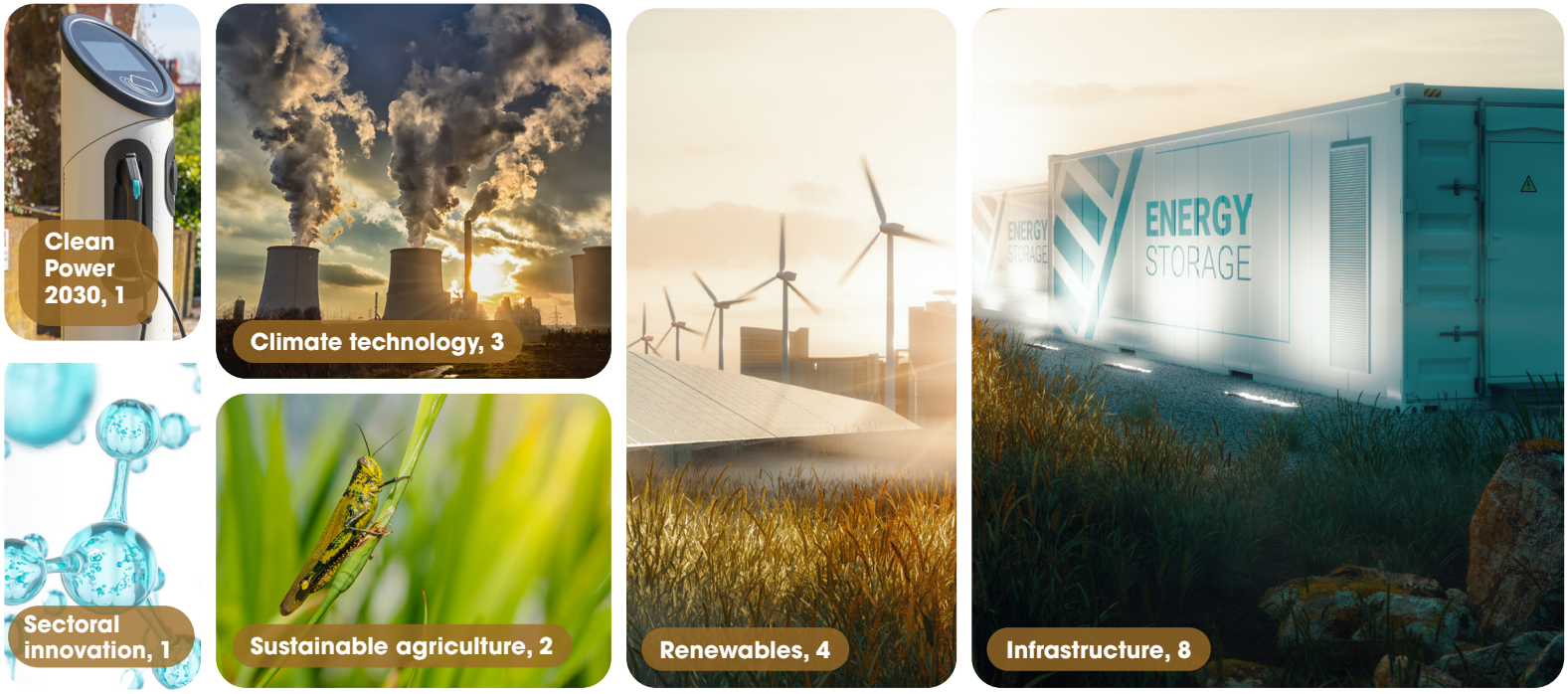
Renewables & clean power

In the UK, the *Clean Power 2030 Action Plan*, the UK pathway to a clean energy system by 2030, could be transformative, aiming to drive £40bn of annual investment through 2030. Overall, the greatest opportunities over the next five years lie in renewable energy (solar, wind and storage), and green infrastructure, such as EV charging points and sustainable urban development.

Climate technology and sectoral innovation

Technological innovation is critical for decarbonisation and significant capital will be

Fig 6 | What do you see being the biggest climate-related opportunities over the next five years? (n=19)



needed to bring new solutions – like carbon-free cement – to market.

There are many areas of opportunity, including efficiency improvements (reducing water and electricity use), optimising processes with technology and artificial intelligence, and advancing sector-specific innovation. While renewables have progressed, areas like grid management, geothermal energy, carbon capture and sustainable aviation fuel offer major growth potential.

According to interviewees, the focus should be on scalable, viable solutions – balancing the excitement for new technologies with practical investment in proven innovations, including simple but impactful changes like capping methane-emitting oil wells. Investors are increasingly prioritising actions that deliver tangible emissions reductions today while building capacity for longer-term breakthroughs.

Sustainable agriculture

Sustainable agriculture is essential to feeding the world without harming the planet. Areas of investment focus include technologies supporting the transition away from fossil fuels, such as battery storage and nature-based solutions like regenerative agriculture.

Liquidity

Asset owners noted ongoing challenges in private markets, such as liquidity and complexity, though these are becoming more manageable with flexible platforms and greater scale.

ESG pushback and political polarisation

Asset owners consider geopolitical risks and political polarisation as major challenges to the climate agenda. While some regions embrace climate action, others continue to rely heavily on fossil fuels, creating risks and investment opportunities. Despite growing anti-ESG sentiment, many investors remain optimistic, noting cost-effective technologies like solar and wind will continue to accelerate progress. However, political backtracking could alter the risk-return profile of climate investments, making

Fig 8 | What do you see being the biggest climate-related opportunities over the next five years?

high-carbon assets less risky and slowing the net-zero transition. Without policy support, companies may pull back from their transition commitments, impacting investment strategies globally. Strong corporate demand for clean energy and a robust pipeline of climate investment opportunities provide reasons for optimism, nonetheless.

US political landscape

Concerns include the potential impact on disclosure and data access, and the difficulty of gaining team buy-in amid political uncertainty. However, most asset owners believe these issues will not stop managers from investing in climate opportunities, especially as mainstream technologies like solar and wind remain cost-competitive. There is also concern political pressure, particularly under the Trump administration, could deter investment in renewables and expose managers to legal risks, such as antitrust lawsuits. Despite this, asset owners stress the importance of following scientific consensus and managing long-term climate risks, even though they acknowledge the next few years could be challenging.

Scalability

The main limit to scalability is turning innovative ideas into reality without inflating asset prices, as happened with renewables. It is essential to match investor interest with well-thought-out projects. According to interviewees, in EMs, expanding green technology is hindered by underdeveloped infrastructure, while market volatility adds further risk.

Profitability, capital misallocation and market volatility

Asset owners pointed out the risk of capital misallocation if too much money flows into the same climate assets, potentially lowering returns. Saturation is another concern, particularly in offshore wind, where upstream turbines are blocking wind for downstream ones. Improvements in scientific research and coordination will be needed to address these problems. Infrastructure is vital to renewable energy and storage, presenting viable pathways for pension schemes, but profitability remains a challenge. New technologies like biofuels are not yet as lucrative as oil and gas, and the long-term return expectations required for these investments may not align with all investors' priorities.

Green technologies' cost

While technologies like green hydrogen remain expensive, with higher production costs than other production methods and unpredictable demand, optimism remains. Mainstream technologies, like solar and wind, are cost-effective and continue to offer significant potential for growth, regardless of political shifts, particularly in the US.

Physical risks

As the likelihood of meeting the 1.5°C target declines, physical risks are becoming more prominent. Although data on climate resilience is incomplete, opportunities exist in adaptation strategies. There's also growing potential in focusing on outcomes beyond carbon reductions alone.

Insight: Infrastructure and renewables are considered good opportunities for climate-related investment over the coming years. However, major headwinds come from the political landscape, including ESG pushback across different geographies, the new US administration and changing regulation.

PENSIONS FOR PURPOSE'S PERSPECTIVE

Many of the identified risks are politically driven – such as the broader ESG backlash, growing political polarisation and changes in the regulatory landscapes. These dynamics underscore the work we conduct at *Pensions for Purpose*, as well as initiatives such as the *Institutional Investors Group on Climate Change (IIGCC)*, the *Net-Zero Asset Owner Alliance*, and other industry efforts that foster dialogue, provide reassurance and support informed climate action.

6 Literature review

6 Literature review

Limiting global temperature rise is at the core of the Paris Agreement, which aims to keep the increase this century well below 2°C above pre-industrial levels, while also pursuing efforts to limit the rise to 1.5°C. To support this aim, institutional investors, including pension funds, have set net-zero targets. Incentives for pension funds to act are threefold:

- Institutional investors are exposed to the systemic risks associated with failing to achieve net zero, including market instability.[1]
- According to the *Pensions and Lifetime Savings Association (PLSA)*, most pension funds (65%) have set net-zero commitments.[1]
- Increasing regulation (explored further below), is prompting investors to consider climate change more seriously. Despite the risks associated with global warming, there is growing appetite for sustainability and capitalising on the opportunities of the green transition: 80% of asset owners anticipate an increase in sustainable AUM within the next two years, driven by stakeholder demand and the pursuit of growth opportunities. Motivators include regulatory pressures, reputational concerns and the potential for enhanced financial performance through ESG integration.[2]

Climate commitments

To reach net zero, investors have been mainly applying one or more of the following strategies:

- Portfolio alignment – managing and measuring the carbon footprint of investments to ensure alignment with a 1.5°C pathway.
- Decarbonising investments – investors are reducing their financed emissions by shifting capital away from high-emitting sectors toward climate solutions. While few have chosen to divest from high-emitting assets, many have opted to 'stay and engage' – primarily by advocating for these companies to establish credible transition plans.
- Engagement and stewardship – most pension funds have chosen not to divest from high emitters. Instead, they are actively engaging with them and other investees, urging them to adopt net-zero strategies and disclose their emissions.

Engagement with investees to tackle emissions is the most popular strategy to achieve net zero, implemented by 90% of pension funds.[1] As previous *Pensions for Purpose* research[3] and a *Make My Money Matter* report[4] noted, pension funds tend to prioritise engagement over divestment or exclusion – according to the *PSLA*, only 41% of pension funds decided to divest from carbon-intensive assets. Instead, they are increasing allocating to climate solutions – mainly renewable energy, a strategy adopted by 80% of pension funds.

Further research points out allocation to climate solutions has been prevalent over divestment or exclusion of high emitters. According to the *IIGCC*, climate solutions are: "activities, goods or services that contribute substantially to or enable emissions reductions to support decarbonisation in line with credible 1.5°C pathways towards net zero, or that contribute substantially to climate adaptation."[5]

Achieving the goals of the Paris Agreement is likely to require over $126tn in investment in climate solutions by 2050, with over 60% of that expected to be needed in countries outside

the *Organisation for Economic Co-operation and Development (OECD)*.[6] Additional investment will be required between 2021 and 2030 to stay on track to reach their net-zero emissions goal by 2050. While pension funds are progressing when it comes to setting up commitments to meet the 1.5°C target – increasing climate-related measurement and disclosure levels, enhancing stewardship and engagement on the topic, and boosting capital allocation to climate solutions – they are still lagging behind on nature-related themes, like the lack of public commitments to address deforestation.[4]

With the potential to invest £1tn in climate solutions by 2035, the UK pension industry could be pivotal in helping the UK reach its 2050 net-zero goal – contributing nearly half of the total national funding required. However, significant challenges remain. *Make My Money Matter* assessed the UK's 20 largest DC pension schemes against seven climate performance metrics. All 20 schemes performed either inadequately or poorly on two of the most critical metrics: fossil fuel financing, and deforestation and land use. In the case of fossil fuel financing, 40% of the schemes received a score of 0 out of ten, with none scoring higher than 3.3. For deforestation and land use, 35% scored 0 and none exceeded 4.5 out of ten.[4]

In the UK, regulations have been introduced to address the risks and impacts of climate change, recognising it as a threat to the long-term sustainability of pension funds.

One of the most notable is the *Pension Schemes Act 2021*, which established climate governance and reporting requirements for occupational pension schemes. The legislation applies to all large trust-based DC and DB schemes with assets of £1bn or more. Schemes outside the scope are encouraged to adopt these practices on a voluntary basis.[7]

The amendments require trustees or scheme managers to ensure effective governance in relation to the impacts of climate change, considering the risks and opportunities, and to publish information on how climate change affects their scheme. At the governance level, trustees are responsible for overseeing material climate-related risks and opportunities that could impact the scheme. In terms of reporting, schemes must disclose in line with the *TCFD* recommendations and publish an annual *TCFD* report. Strategically, trustees are required to:

- Identify climate-related risks and opportunities that could affect the scheme's investment strategy over the short, medium and long term.
- Conduct scenario analysis to assess the potential impact of climate change on investment and funding strategies.
- Measure emissions, set targets and report against relevant climate metrics.

In the European Union, the *Sustainable Finance Disclosures Regulation (SFDR)*, implemented in March 2021, requires financial market participants, such as asset managers, pension funds and insurers, to disclose how they integrate sustainability risks in investment decisions. The *SFDR* classifies investment funds into three categories based on their sustainability characteristics:

- Article 6 – no ESG integration.
- Article 8 – promoting ESG characteristics.
- Article 9 – funds with sustainable investment as the primary objective.[10]

The regulation aims to increase transparency, reduce greenwashing and help investors make informed decisions about sustainable investment products.

The *European Commission* has also set up the *EU taxonomy for sustainable activities*, a classification system providing asset owners with criteria to identify and assess green investments, in line with the EU's climate goals, including carbon neutrality by 2050.[11]

REFERENCES

1 **Pensions and Lifetime Savings Association (PLSA), 2024,** *Majority of pension funds have net zero commitment but challenges persist in meeting climate and nature targets,* viewed April 2025, <www.plsa.co.uk/News/Article/Majority-of-pension-funds-have-net-zero-commitment-but-challenges-persist-in-meeting-climate-and-nature-targets>.

2 **Morgan Stanley, 2024,** *Why institutional investors expect sustainable investing to grow,* viewed April 2025, <https://www.morganstanley.com/ideas/sustainable-investing-asset-managers>.

3 **Pensions for Purpose, 2025,** *Systemic stewardship – challenges & strategies for change,* viewed April 2025, <www.pensionsforpurpose.com/ImpactLens/2025/03/17/Systemic-stewardship-challenges-and-strategies-for-change>.

4 **Make My Money Matter, 2024,** *UK pensions: climate action report – an analysis of leading pension providers' action on climate change,* viewed April 2025, <https://makemymoneymatter.co.uk/wp-content/uploads/2024/02/Make-My-Money-Matter-Climate-Action-Report-2024.pdf>.

5 **Institutional Investors Group on Climate Change (IIGCC), 2024,** *New climate solutions guidance aims to help investors identify opportunities, measure portfolio allocation and engage,* viewed April 2025, <www.iigcc.org/insights/climate-solutions-guidance-help-investors-identify-opportunities-measure-portfolio-allocation-engage>.

6 **IIGCC, 2022,** *Climate investment roadmap,* viewed April 2025, <www.iigcc.org/resources/climate-investment-roadmap>.

7 **University of Cambridge, 2021,** *UK Pension Schemes Act 2021 – new regulations to enhance climate disclosure,* viewed April 2025, <https://climatehughes.org/wp-content/uploads/2021/10/Briefing-Note_Pensions-Act-and-Climate-Disclosure_FINAL.pdf>.

10 **Seneca ESG, 2024,** *SFDR: article 6, 8 & 9,* viewed April 2025, <https://ow.ly/39Rg50W3vp9>.

11 **European Commission, 2023,** *EU taxonomy for sustainable activities,* viewed April 2025, <https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en>.

7 Best practice

7 Examples of best practice

Throughout the interviews, organisations shared examples of how they are implementing climate innovation and promoting the low-carbon transition across their portfolios. These case studies represent tangible investments, strategic approaches and forward-thinking initiatives, which combine environmental and financial impact. From large-scale renewables to socially conscious green bonds and transformative shareholder engagement strategies, the examples outlined illustrate what effective climate action can look like in real-world investment portfolios.

CASE STUDIES – EXAMPLES OF BEST PRACTICE

1 | Innovative greenhouse project using waste heat

One asset owner shared a large-scale agricultural initiative leveraging industrial byproducts for sustainable food production. The project involves the construction and operation of a greenhouse that uses waste heat generated by a nearby water treatment plant to grow peppers. By repurposing secondary heat that would otherwise be lost, the project reduces carbon emissions and also supports local, sustainable food systems.

> "One of our favourite examples is an investment in the largest greenhouse in the UK. This greenhouse uses residual heat from a water treatment plant to grow peppers. It's a really cool project and we love showcasing it because it's an innovative, sustainable solution."

ASSET OWNER

2 | Green bond investment in EVs with social impact

Another example comes from a green bond investment that delivers environmental and social value. An asset owner highlighted their investment in a green bond which funded the development of EVs alongside the implementation of road safety features. Part of the investment was directed towards enhancing mobility for older people, addressing social equity while supporting decarbonisation in the transport sector. This example offers a dual objective, reducing emissions and improving quality of life for vulnerable populations. The everyday nature of EVs and personal transport also makes this investment highly relatable to scheme members, enhancing stakeholder engagement and understanding.

> "There is a *Toyota* bond that supported the development of EVs and advanced road safety features, including enhanced mobility for the elderly. So it has environmental and social impact, a dual objective. It's a tangible investment – members understand cars. As we move into renewables, we'll likely have more relateable examples like wind and solar."

ASSET OWNER

3 | Investment in laggards

Another example of best practice was a climate action strategy that targets high-emitting laggards - ie companies with high emission profiles that are not currently market leaders in sustainability - rather than focusing on investing in companies already aligned with ESG best practice. This approach prioritises engagement to achieve the greatest emissions reductions where they are most needed.

> “Our climate action strategy is a great example of innovation, not necessarily in climate tech, but in investment strategy. Historically, sustainable investing started with exclusions, then ESG, and then positive selection, investing in leaders. This strategy flips that on its head. We intentionally invest in laggards, not leaders, with the goal of turning them around. That’s innovative as 70–80% of emissions come from laggards. If we don’t address them, we’re not solving the problem. Aligning this with shareholder value is powerful. Companies don’t want to be told to do things that cost them, they want to be shown how they can increase their value. It leads to more productive conversations.”

ASSET MANAGER

4 | Renewables for grid-scale impact

In the private market space, one asset owner described a sophisticated renewable energy strategy. The initiative is able to achieve energy output levels comparable to those of traditional fossil fuel power stations. This clustering approach improves grid integration and reliability, and also enhances the commercial attractiveness of the projects to institutional investors and utility operators.

> “Our European private markets investment, they have developed solar and wind farms in clusters, especially in places like Spain. They’ve also added battery storage. By grouping projects, they’ve created energy output levels that rival traditional power stations, making them more attractive to investors and grid managers.”

ASSET OWNER

5 | Reviving old technology for a net-zero grid

Another asset owner highlighted an investment in asynchronous condenser technology, demonstrating how legacy infrastructure can help enable the energy transition. As renewables introduce more variability into the grid, this technology helps stabilise supply.

> “An example is an investment in asynchronous condenser technology, which helps manage the electricity grid’s uneven flow from renewables. It’s old technology but crucial for decarbonising the grid. It’s delivered strong returns and the fund hasn’t even finished its investment period yet.”

ASSET OWNER

8 Sponsor's view on the research

Sponsor's view on the research

SAIL INVESTMENTS

Feedback from *SAIL Investments*

This research provides a timely and thoughtful look at how UK asset owners are responding to climate-related risks and opportunities. It reflects a growing recognition that climate change is a material financial risk – and increasingly, a fiduciary issue. Yet many investors remain constrained by narrow definitions of climate solutions, cautious allocation approaches and operational barriers.

From SAIL's perspective, this opens up an essential conversation about how capital can be most effectively allocated – at global scale. To date, most climate investments have focused on mitigation. But reaching net zero will require going beyond mitigation. Much of that will need to come through nature-based solutions, where the interconnection between climate and nature can be addressed through hitherto scarcely addressed highly scalable investment universes, unlocking economic value by applying innovative strategies.

We see the greatest potential in driving the transition of high-emitting yet core industries towards sustainable production models – particularly in emerging markets, tropical forest regions and across global supply chains, where both environmental and social stakes are highest. This includes industries tied to agriculture, forestry, and other land use (AFOLU) – such as commodity agriculture (soy, beef, palm oil), forestry and livestock production – which significantly contribute to emissions but are also vital for livelihoods and economic development.

The next question for investors is how to allocate to nature-based strategies that are not only credible but also conservative enough for core portfolios. This includes looking beyond carbon and biodiversity credits to strategies that offer a a higher potential return to asset owners able to navigate and capitalise on the inherent complexity of these markets.

We also welcome the shift away from siloed 'climate buckets' toward integrated thinking – embedding climate, nature and social considerations across the whole portfolio. This aligns with our own learning: progress comes not from perfect strategies, but from engaging with difficult problems, in difficult places, with a long-term, science-based view.

This paper lays a strong foundation for deeper, more confident dialogue – on what's truly possible, and what's urgently needed next.

Conclusion

What have we learned from the research?

Although most of our interviewees do not have specific target allocations to climate-related investments, all reported some level of exposure to climate solutions. The absence of formal targets reflects the industry's ongoing efforts to define what exactly constitutes a 'climate solution'. Some asset owners are aligning with the EU taxonomy for sustainable activities, others are awaiting clearer regulatory guidance, and some are still questioning whether concepts, like Paris alignment, should be considered part of the definition.

Climate investment integration

A common approach among asset owners is to avoid creating isolated 'climate buckets', instead choosing to embed climate considerations holistically across all asset classes. Climate now holds the potential to influence investment decisions alongside traditional risk-return factors. Similarly, the absence of a formal transition plan does not equate to a limited net-zero commitment, as many funds are actively taking steps to achieve net-zero goals through other strategies, like climate action plans.

One notable shift from our previous *Pensions for Purpose* research is a growing openness to 'brown-to-green' strategies, particularly in EMs. While risk aversion remains, there's a clearer recognition engagement with high emitters is critical to a genuine transition. Simply divesting from these companies is not seen as a solution; instead, asset owners are strengthening their stewardship practices to accelerate systemic change.

Interestingly, public markets were most frequently cited as best positioned to address climate change. While asset owners acknowledge the importance of climate action across all asset classes, public markets are viewed as offering greater opportunities to influence company behaviour through engagement, especially with high emitters. Some noted the limitations of being a small shareholder, but others argued listed companies tend to be larger and more carbon-intensive, making them targets for decarbonisation efforts.

Progress is also being made in integrating nature-related factors into climate strategies. Although social dimensions were not explicitly included in the research questionnaire, they emerged organically in discussions, with many pension funds expressing a desire to consider climate, nature and social factors in a more interconnected and strategic way.

Ecosystem Themes

This research affirms the deep relationship between all of *Pensions for Purpose's* Ecosystem Themes:

- Biodiversity & Natural Capital.
- Climate Innovation.
- Impact Integration.
- People Value.
- Place Lens.
- System & Governance Change.

Asset owners stressed the importance of integrating climate, nature and social factors in a holistic way. Adopting a climate-focused approach is also enhancing stewardship practices and strengthening engagement with investee companies.

Another recurring theme was the emphasis on generating meaningful local impact, within the UK and in EMs. Most striking, however, is the pace at which the industry is progressing. Compared to our previous research on emerging markets and nature and biodiversity, it is evident asset owners are becoming proactive in navigating and implementing these complex, interrelated issues. There has been significant progress when it comes to allocation to EMs and integration of social impact.

Appendix

Participants*

Asset owners
Brightwell
Cambridgeshire & Northamptonshire County Council Pension Fund
London Pension Fund Authority (LFPA)
NatWest Cushon
Nest
Oxfordshire Pension Fund
Pension Protection Fund
Phoenix Group
Smart Pension
South Yorkshire Pensions Authority
Surrey Pension Fund
Consultants and advisers
Hymans Robertson
Philip Hebson (independent adviser)
Quantum Advisory
Asset managers
Aviva Investors

**Participants, who gave permission to be named*

Asset owner questionnaire

Section 1 **| Climate investment strategies**
1 | Do you have a target allocation for climate opportunities? What encouraged you to consider climate in your investment decisions?
2 | Which sectors or asset classes are you prioritising for climate opportunities?
3 | Which asset classes and/or investment strategies do you consider as most efficient to address climate change?
4 | Do you consider addressing nature and climate in one investment strategy?
5 | Do you consider EMs for your climate innovation investment allocation or do you prefer a UK-focused approach? Why?
Section 2 **| Risk and return**
6 | What KPIs do you prioritise when assessing the success of your climate-related investments?
7 | How does your organisation assess the financial risks associated with climate change?
8 | How is this linked to your assessment of biodiversity loss?
9 | What is your time horizon when assessing the returns of your climate-innovation investments? How concerned would you be if returns showed volatility in the short term?
Section 3 **| Asset management capabilities**
10 | What do you expect from asset managers in executing climate-focused investment strategies?
Section 4 **| Transition plans and implementation**
11 | Do you have a transition plan for achieving ne-zero emissions? If so, what are the milestones? What main challenges have you encountered in implementing it?
Section 5 **| Climate investment opportunities and challenges**
12 | Can you share an example of a successful climate innovation investment in your portfolio?
13 | What do you see being the biggest climate-related opportunities and challenges over the next five years?

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