BRUNEL
Pension Partnership

Climate Stocktake

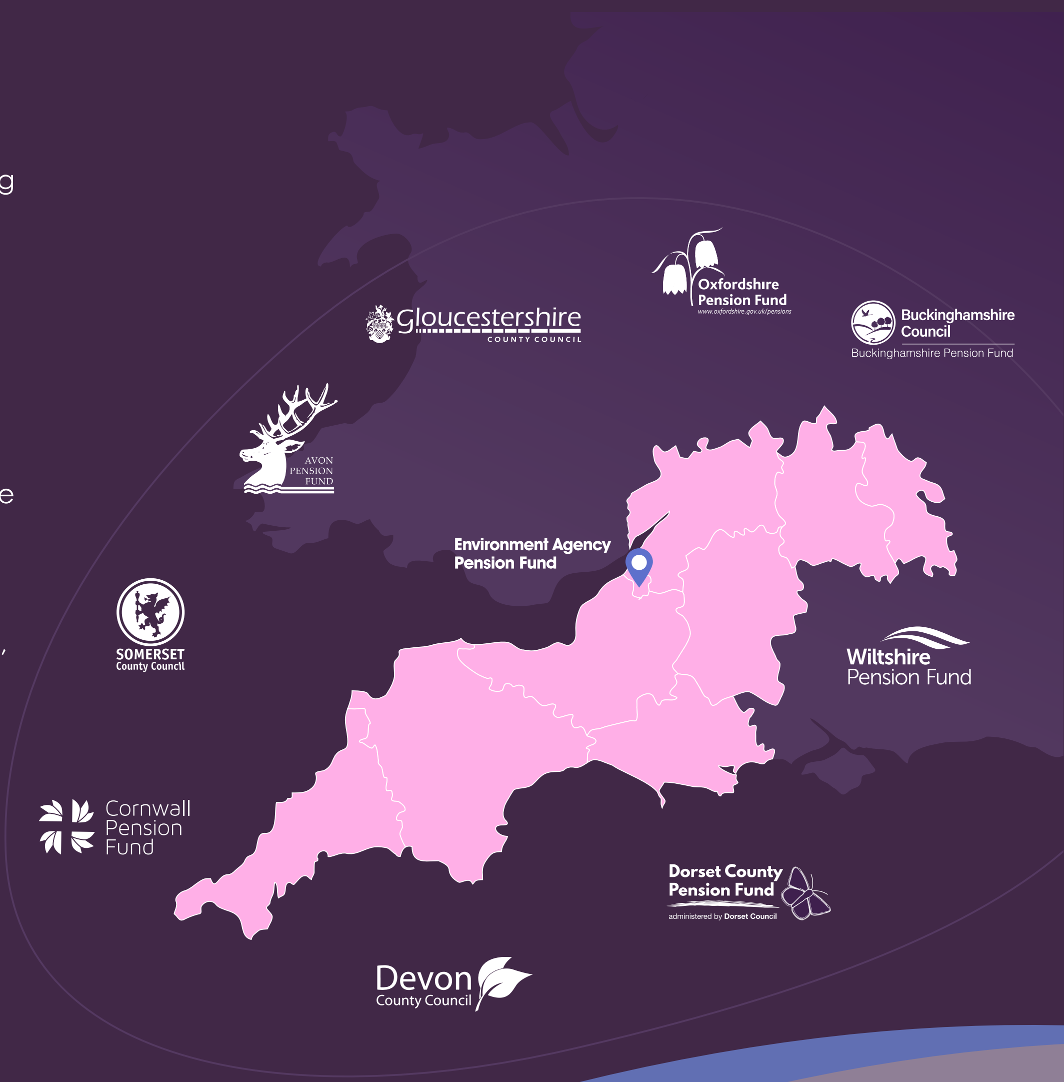
Implementation Review of the 2020 Climate Change Policy

Brunel Pension Partnership

We deliver stronger investment returns over the long term, protecting our clients' interests through contributing to a more sustainable and resilient financial system, which supports sustainable economic growth and a thriving society.

Brunel Pension Partnership Limited (Brunel) is one of eight national Local Government Pension Scheme (LGPS) Pools, bringing together circa £35 billion investments of 10 likeminded pension funds: Avon, Buckinghamshire, Cornwall, Devon, Dorset, Environment Agency, Gloucestershire, Oxfordshire, Somerset, and Wiltshire.

We would like to acknowledge the significant support and contribution of our clients to our work on climate change, Responsible Investment and Stewardship underpinning our mutual commitment to investing for a world worth living in.



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Executive Summary

Climate change has been a priority for Brunel Pension Partnership since we were formally launched in 2017. Brunel's Climate Change Policy, launched in January 2020, commits it 'to systematically change the investment industry to ensure that it is fit for purpose for a world where the temperature rise needs to be kept to well below 2°C compared to pre-industrial levels.' In March 2021, Brunel updated its commitments by pledging to be Net Zero no later than 2050 and by resetting its 'well below 2°C' goal to 1.5°C.

This short report summarises the implementation of the Climate Change Policy in the period 2020-2022, describing the main actions that have been taken and the main outcomes that have been achieved. Brunel has committed significant resources to the implementation of the Policy and, as Table 1 below indicates, Brunel has made significant progress both relative to its starting point in 2020 and relative to the ambitious targets set at that time. Notably, Brunel is ahead of target to reach the Net Zero halfway point by 2030, thanks to outdoing its 7% annual carbon exposure reduction target. In addition, Brunel has engaged with all of its investment managers on climate change; it has developed market-leading investment products (the Paris Aligned Benchmark harnesses indices for climate investing and the Multi-Asset Credit portfolio drives forward RI in more esoteric bond asset classes); and it has made significant investments in green assets via its infrastructure and secured income portfolios. Brunel has also established firm foundations – in terms of internal accountability and governance processes, in terms of building manager competence, in terms of strengthening data and performance measurement – that will underpin its work in the coming years.

Table 1 also looks forward, and asks what is needed between now and 2030, across each of the five priority areas identified in the Policy. In summary, much more is needed across all five of the areas identified in the Policy for society to successfully achieve the goal of Net Zero by 2050. Brunel recognises that it has a key role to play in this regard, and fully intends to accelerate its efforts on climate change to help enable that outcome.

Brunel's Climate Change Governance

The Brunel Board approves and is collectively accountable for Brunel's Climate Change Strategy and Policy.

Day-to-day operational accountability sits with the Chief Responsible Investment Officer, with oversight from the Brunel Investment Committee and Brunel's Board.

Climate risk has been identified as a principal (level 1) strategic risk to Brunel. As such, the risk is owned by the Chief Executive Officer, with oversight from Brunel's Audit, Risk and Compliance Committee forming part of Brunel's overall strategic risk framework. The Chief Investment Officer is responsible for ensuring the integration of climate change into portfolio construction, implementation and overall investment decision-making.

All members of the investment team have explicit responsibility for the implementation of responsible investment (RI) principles, including but not limited to climate risk, within their respective roles.

Brunel has a dedicated Responsible Investment team of three investment professionals who support the Brunel Investment Team and lead on engagement and stewardship activities.

Fiduciary duty

"Ensuring investment performance is central to all of our activities. We believe it is our fiduciary duty to manage climate change and associated risks and opportunities within our investment portfolios. Climate-related risks impact all investment strategies and mandates, whether active or passive, and across both long and short time horizons.

We therefore need to manage climate change so that we deliver the investment performance expected by our clients. We do this by ensuring that our portfolios are well-diversified, and that our managers have a deep understanding of both the companies or assets in which they invest, and the risks to which they are exposed."

David Vickers (CIO)

Table 1: Progress (2020-2022) and the Challenge Ahead (2023-2030)

Climate Change Policy Area	Brunel's Progress, 2020-2022 Note: From √ (limited/no progress) to √√√√√ (significant progress and significantly ahead of Policy).	What is Needed Between 2023 and 2030? Note: From 1 (the desired 2030 outcomes have been achieved) to 5 (there is significant work needed to achieve the 2030 outcomes).	Comments Examples of supporting work to evidence response.
P1: Policy Advocacy	√√√√	5	Since 2020, there has been significant progress in some areas (e.g. mandatory reporting, industry skills and knowledge). Other areas (e.g. fossil fuel subsidies) remain some way from being fully addressed through policy or regulation.
P2: Product Governance	√√√√√	3	Brunel has launched four specific low carbon product areas in listed equity: a Paris-aligned benchmark series for passive listed equities and a multi-asset credit fund. Brunel is currently exploring client interest in products such as social impact and climate opportunities funds.
P3: Portfolio Management	√√√√√	4	Brunel selects, monitors and challenges all of its investment managers on their processes and on their holdings. This has delivered clear outcomes in terms of carbon performance (e.g. in terms of greenhouse gas emissions, Brunel's major active equity and fixed income portfolios are all less carbon-intensive than their respective benchmarks). Brunel works with others to develop tools and methodologies (e.g. stress testing, scenarios) that can be used by the investment industry as a whole. Brunel has successfully encouraged its investment managers to actively contribute to this work.
P4: Positive Impact	√√√√√	4	Brunel's Sustainable Equities Portfolio managers must consider environmental and social issues in order to identify investment themes that contribute to sustainable development. In private markets, Brunel has made many investments in climate solutions, particularly in renewable technologies and sustainable infrastructure. Brunel has started work to more fully describe and report its investments in sustainability-related themes.
P5: Persuasion	√√√	5	Brunel engages with companies, across all asset classes, to publish its climate transition action plans, and to report on its emissions and progress against its targets. Brunel challenges all of its investment managers to think deeply about how they invest and how they engage with the companies and other entities in which they invest. Brunel's engagement with the banking sector has played a key role in banks such as Barclays and HSBC developing and implementing ambitious, long-term climate strategies.

Introduction

In 2020, Brunel launched its Climate Change Policy. The key objective of the Policy is 'to systematically change the investment industry to ensure that it is fit for purpose for a world where the temperature rise needs to be kept to well below 2°C compared to pre-industrial levels.' In March 2021 Brunel raised its ambitions still further, committing to be Net Zero by 2050 at very latest, and raiming to limit world temperature rises to 1.5°C..

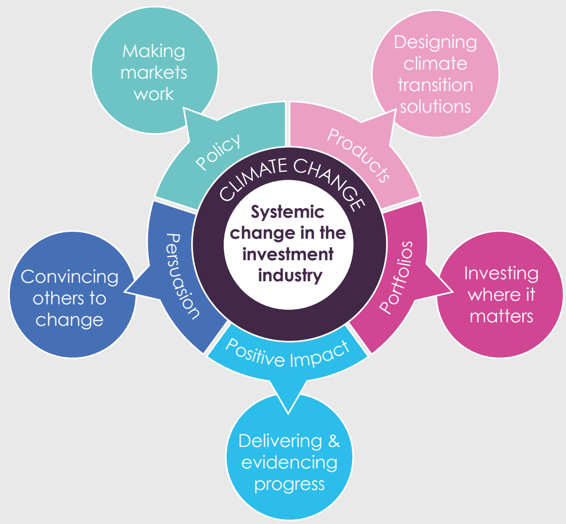
At the heart of the Policy is the belief that Brunel should think far bigger than just its own portfolios. That means using not only its position in the investment chain, but also its industry status as a leader in climate investing, to be a stimulus for system-wide change. The Policy recognises that Brunel can exercise influence with policymakers, asset managers, companies and through industry bodies and the press, but that many of its most productive engagements are collaborations with peers. The Policy also notes that Brunel has considerable power through the selection, appointment, ongoing monitoring and more formal reviews of asset managers. The Policy identifies five principal areas where Brunel believes there is a critical need for action and where Brunel can make a significant difference (see Box 1 below).

Brunel committed to a full stocktake of the Policy in late 2022, to review its effectiveness and its continued relevance to Brunel and its clients, with a view to setting updated policy objectives and targets from 2023. **This short report summarises the implementation of the Climate Change Policy in the period 2020-2022**, describing the main actions that have been taken and the highlights that have been achieved. Please see the Brunel website and various reports for further examples and outcomes.

Box 1: 2020 Brunel Climate Change Policy

P1: Policy Advocacy

- We want policy makers to establish comprehensive and robust climate change policy frameworks that deliver significant reductions in greenhouse gas emissions, that accelerate progress towards the low carbon economy, and that enable effective adaptation to the unavoidable impacts of climate change.



P2: Product Governance

- We want to increase the number and the scale of investment by our clients and by the wider investment market in products that deliver substantial climate change benefits.

P3: Portfolio Management

- We want our investment portfolios to be resilient under a range of climate change scenarios (both mitigation and adaptation).

P4: Positive Impact

- We want to increase our investments in activities that directly support the low carbon transition and that enable effective adaptation to the unavoidable impacts of climate change.

P5: Persuasion

- We want the companies and other entities in which we invest to support the transition to a low carbon economy, and to ensure that they are resilient to the unavoidable impacts of climate change.

P1: Policy Advocacy

We want policy makers to establish comprehensive and robust climate change policy frameworks that deliver significant reductions in greenhouse gas emissions, that accelerate progress towards the low carbon economy, and that enable effective adaptation to the unavoidable impacts of climate change.

Brunel's actions

Brunel's Climate Change Policy acknowledges the importance of public policy in shaping the actions investors take on climate change. The Policy also emphasises Brunel's unique position within the investment industry and its potential to influence public policy.

Public policy has been a major focus for Brunel since the Policy was adopted in 2020. Brunel's actions have included responding to policy consultations , direct engagement with regulators, industry association leadership (notably through the Institutional Investors Group on Climate Change (IIGCC)), and capacity-building within the investment industry. Brunel has focussed its policy advocacy activities on the following issues:

- Developing a financial system fit for a net-zero and resilient economy and society
- Mandatory climate reporting
- Functioning carbon markets and carbon pricing
- Fossil fuel subsidies
- Socially inclusive just transition
- Regulatory barriers
- Integration and mandates
- Skills and knowledge
- Climate in trade agreements

Case-study: UK policy engagement

In December 2020, as signatory of a letter to the UK prime minister by businesses and investors, Brunel called on the government to set an ambitious Nationally Determined Contribution (NDC) that was, at the least, aligned with the Paris Agreement and with the UK's target of Net Zero emissions by 2050.

In January 2021, Brunel was a signatory to an asset owner letter written to the UK transport secretary calling for policy measures to support the transition to zero-emissions vehicles.

In January 2021, Brunel was a signatory to an asset owner letter written to the UK prime minister promoting policy measures to support the UK's Net Zero and 2030 NDC ambitions. The letter also sought to highlight how the financial sector can contribute to these ambitions.

Case-study: Investment industry leadership on climate change

Faith Ward (Brunel's Chief Responsible Investment Officer) has played a leading role in the European investment industry's efforts on climate change. As Chair of the Institutional Investors Group on Climate Change (IIGCC), she has represented IIGCC at various investment industry events, and has actively supported the IIGCC Policy Team in reviewing and responding to UK and European Union policy and regulatory proposals on climate change. Beyond the IIGCC, Faith has been appointed by the UK government to the Green Technical Advisory Group (GTAG) and to the Delivery Group of the Transition Plan Taskforce.

Status

Developing a robust policy landscape that promotes a more sustainable and resilient financial system and which supports a managed transition to Net Zero is an iterative process. It requires voices and action from multiple stakeholder groups signalling the desired changes. It requires the commitment of time and resources. It requires patience and stamina, given that it can take years, rather than weeks or months, for change to be seen.

Brunel's assessment of the state of play of its policy advocacy work reflects these realities (see Table 2). Significant outcomes have been seen in some areas (e.g. on mandatory reporting, on industry skills and knowledge). In most other areas, there has been progress in terms of issues being acknowledged and policy development processes being established, but less progress in terms of these being fully addressed through policy or regulation.

Table 2: The State of Play in Key Climate Policy Areas[ii]

Policy Area	Current Status
Develop a financial system fit for a net-zero and resilient economy and society	There has been some progress – in particular in the European Union – in the introduction of policy measures, such as taxonomies that define the economic activities that will support a transition to a net-zero future. In 2021, the UK became the first country to commit to creating a Net Zero domestic financial system – a historic pledge, and one that it is hoped current and future administrations will retain. There are also examples of funding being made available for the development of low carbon technologies.
Mandatory climate reporting	In the UK, there has been good progress on mandating climate reporting amongst the largest companies and across the investment community. Progress has also been good at the EU level, in particular with SFDR due to come fully into force this year. The SEC's recent announcement that companies should include climate-related disclosure in their Form 10-K is a positive development.
Functioning carbon markets and carbon pricing	Progress has been made in expanding the scope of carbon pricing initiatives. The OECD has found that almost half of all CO^2 emissions from energy use in G20 economies are now priced. However, a recent report from the World Bank cautioned that only 3.76% of emissions are covered by a carbon price above \$40/tCO^2e (the bottom range of 2020 prices recommended to enable Paris-compliance). Policymakers are starting to take action to ensure that the right price signals are sent to companies. One of the major achievements of COP26 in Glasgow was the finalisation of the Paris Rulebook, which provides details on how the Paris Agreement on climate change is to be implemented. The Rulebook includes agreements on the use of market mechanisms, essentially supporting the transfer of emission reductions between countries while also incentivising the private sector to invest in climate-friendly solutions. Another important development is the work of the Voluntary Carbon Markets Integrity Initiative in developing a Claims Code of Practice to guide the credible, voluntary use of carbon credits.
Fossil fuel subsidies	Progress in the area of fossil fuel subsidy reform remains very weak, exacerbated by the war in Ukraine which has seen the issues of fuel poverty and energy security dominating energy policy debates.
Socially inclusive just transition	There has been increased formal recognition of a socially inclusive Just Transition in formal climate-related commitments. For example, at the COP26 summit, sixteen industrialised-country governments, along with the European Union, issued a declaration called 'Supporting the Conditions for a Just Transition Internationally', and France, Germany, the UK, US and EU launched the International Just Energy Transition Partnership with South Africa. Whilst signalling is strong, there has, as yet, been limited progress in delivery of a Just Transition against these commitments. Action is now needed to translate some of these commitments into actionable policy.
Regulatory barriers	The war in Ukraine has meant that addressing certain regulatory barriers (e.g. fossil fuel subsidies) has been a lower priority for governments and, in some cases (e.g. the UK government's policy shifts on awarding oil and gas and fracking permits), policy has moved backwards. However, there has been progress in areas such as corporate reporting, and requirements to prepare transition plans. When companies put reductions in greenhouse gas emissions explicitly on their agenda, it enables them to better pressure governments to support Net Zero through policy and regulation.
Integration and mandates	Good progress has been made in the UK, with major financial regulators now holding remits that include climate change.
Skills and knowledge	In the UK, the CFA launched the Certificate in Climate and Investing course. The FCA hired a Director of Environment, Social and Governance, a newly-created role. More generally, there has been a significant increase in the investment industry's demand for climate change and responsible investment/ESG specialists.
Climate in trade agreements	Brunel has undertaken limited formal policy advocacy action in this area. While there has been limited progress in climate being explicitly included in trade agreements, it is clear that the two areas are becoming more entwined. For example, the World Trade Organisation has noted: "Climate change is a global environmental challenge that calls for collective solutions, multilateral cooperation and coherent action in line with the international community's wider ambitions for economic growth and sustainable development. Trade and trade policy can and must be a part of the policy "toolbox" to achieve shared climate goals at the depth and speed required by the climate emergency. Trade plays a crucial role in the transition to a global low-carbon economy and a greener, more sustainable society."[v]

P2: Product Governance

We want to increase the number and the scale of investment by our clients and by the wider investment market in products that deliver substantial climate change benefits.

Brunel's actions

Brunel delivers on its product governance objective by supporting the development of products – which are made available to its clients and the wider investment market – that provide substantial climate change benefits and sustainable investment returns. Brunel works with its clients to identify products or product areas that meet these twin climate change and investment goals, and then goes through a structured product development process to turn these ideas into concrete products or funds that they can invest in. This process involves extensive client interaction (to specify the climate change parameters and desired investment performance for the product, to confirm the scale of investment that clients will make in the product); market surveys (to determine whether the desired product exists, to assess whether managers have the expertise and competence to deliver the desired product); and formal tender processes (to produce long- and short-lists of potential investment managers, to select preferred managers). Generally, this process takes 12-18 months from initiation to the point where a product is ready for investment.

Status

Since 2020, Brunel has successfully developed and launched four low-carbon products: three passive portfolios that track Paris-aligned benchmarks (all for listed equities), and a multi-asset credit portfolio (see case studies below). Brunel is currently working with its clients to gauge interest in sustainability-related products such as social impact funds and climate opportunities– and recently launched the Cornwall Local Impact portfolio, which targets both social and environmental priorities through place-based investing.

Case-study: Multi-Asset Credit

In 2021, Brunel launched its Multi-Asset Credit (MAC) portfolio. The portfolio invests in a variety of specialist bond sectors, such as high yield corporate bonds, bank loans, asset-backed securities and emerging market debt. It has been designed to provide exposure to range of more specialised, higher-yielding bond sectors, which collectively provide a diversifying, moderately high-return portfolio.

The portfolio is split across three sub-funds: 60% in the Neuberger Berman Brunel Multi Asset Credit Fund, 20% in the Oaktree Brunel Global Credit Fund, and 20% in the CQS Brunel Multi Asset Credit Fund.

Aligning with the ambitions expressed in Brunel's Climate Change Policy was a fundamental theme throughout the manager selection process.

During the interview process, Brunel only considered managers who showed awareness of whether companies are aligned with the Paris Agreement. Brunel also questioned potential managers to ensure they knew where carbon data was weak in specific bond sub-sectors, and how they could work towards the goal of Paris alignment despite these issues. At the time of the tender process, few MAC managers had the capability to support Brunel's Climate Policy and commitment to Net Zero. Brunel's selection process therefore focused not only on managers' current approaches but also on how they expected their approach to change over time, and their appetite for innovation as climate research, tools and data evolve.

One of the key insights from this process was that the investment managers who scored the highest in Brunel's assessment were those who clearly acknowledged the challenges with integration and who were honest about what they did and did not do.

Case-study: Paris-aligned benchmarks

Traditionally, indices have tended to be constructed according to market capitalisation, and to employ regional or sectoral filters as required. This means that traditional indices are generally carbon-blind, which is a critical issue given that these indices play an anchor role in financial markets, setting perimeters on the universes within which investors can select assets, and defining performance rates against which investors can measure their success. This is a global issue; for investors seeking to align with the goals of the Paris Agreement, indices can be a major challenge to progress.

Rather than trying to avoid the problem, Brunel wanted to find a solution that enabled index investing to become part of the answer to climate change. It therefore worked with FTSE Russell to develop a new series of Paris-aligned benchmarks which harness data across a range of climate factors to provide a climate-linked tilt exposure, and thereby allow passive investments to be Paris-aligned.

These benchmarks go beyond the requirements of the EU's Paris-aligned benchmark criteria (i.e. achieving a 50% reduction in carbon emissions over a ten-year period) by integrating fossil fuel reserves, carbon reserves and green revenues, as well as forward-looking alignment with the goals of the Paris Agreement. They also set a limit on the active weighting of banking sector constituents, given that finance's funding of large carbon emitters is a major source of climate change.

P3: Portfolio Management

We want our investment portfolios to be resilient under a range of climate change scenarios (both mitigation and adaptation).

Brunel's actions

Brunel focuses its portfolio management activities in two areas. First, it actively selects, monitors and challenges its current and prospective investment managers on their processes, on their decisions and on the holdings in their portfolios (see Box 2).

Second, recognising that there is a critical need to develop tools and methodologies (e.g. on stress testing, on scenarios, on risk management, on assessing adaptation-related risks) for the investment industry as a whole, Brunel works collaboratively with others in the investment industry to develop these tools and methodologies. Much of this work has been carried out through the Institutional Investors Group on Climate Change, with Brunel sponsoring the Paris Aligned Investment Initiative (see Box 3); supporting the development of the Net Zero Investment Framework; and submitting portfolio data to be run through a financial climate model to assess the financial implications of different climate change scenarios. This scenario analysis looked specifically at asset-side changes, including earnings impairments as a result of transition policies and demand changes.

In addition to its own involvement, Brunel has successfully encouraged its investment managers to contribute to this work. For example, one of Brunel's private market managers has been appointed to co-lead the Private Equity Workstream and others have contributed to different working groups and consultations.

Box 2: Manager appointment and monitoring

Brunel includes requirements to adhere to its Climate Change Policy, to provide climate data, and to provide regular stewardship reporting in its investment management agreements (IMAs) for segregated mandates. In pooled vehicles, Brunel seeks to have side-letters agreed that convey these expectations.

Brunel recognises that IMAs may not be sufficiently precise and may become obsolete. To solve this problem (which applies across a whole range of issues, not just climate change), Brunel developed a principles-based approach documented in the Brunel Asset Management Accord. The Accord is intended to help clarify understanding and shape expectations in the implementation of the investment mandate that Brunel has awarded. It is a two-way commitment, with Brunel committing to being a long-term client and to supporting the manager, particularly in periods of underperformance.

Elements of the Accord that are particularly relevant to dealing with climate risk include:

(2) Brunel takes a long-term view of its fiduciary duties and expects the manager to act as if it was a fiduciary investing for the long term when operating this mandate.

(8) Brunel demands high standards of transparency from the companies and organisations it works with, so likewise places a high priority on being transparent itself and providing high standards of reporting and communication. Brunel will expect the managers' reporting to facilitate its ability to deliver this commitment.

(14) Brunel is prepared to be innovative and demonstrate thought leadership in collective investment, within the requirement of prudence and joint fiduciary duty. Brunel welcomes open dialogue to explore ways to meet both its own and our clients' evolving investment needs. The manager will keep Brunel informed of the evolution of its business and its investment process so that Brunel can ensure the mandate remains fit for purpose.

The Accord recognises that investment processes need to evolve if they are to remain fit for purpose. Brunel sees this evolution as preferable to needing to design new mandates and undertake the lengthy, costly and time-consuming exercise of retendering and transition. One key implication is that ongoing manager monitoring and dialogue is critically important (see the Invesco case study below). Brunel routinely talks about climate change in manager monitoring/review meetings and frequently complements these with follow-up meetings with the climate specialists working for these investment managers.

Box 3: The Paris Aligned Investment Initiative (PAII)[vii]

The Paris Aligned Investment Initiative (PAII) was established in May 2019 with the objective of supporting investor efforts to ensure their portfolios are Net Zero by 2050.

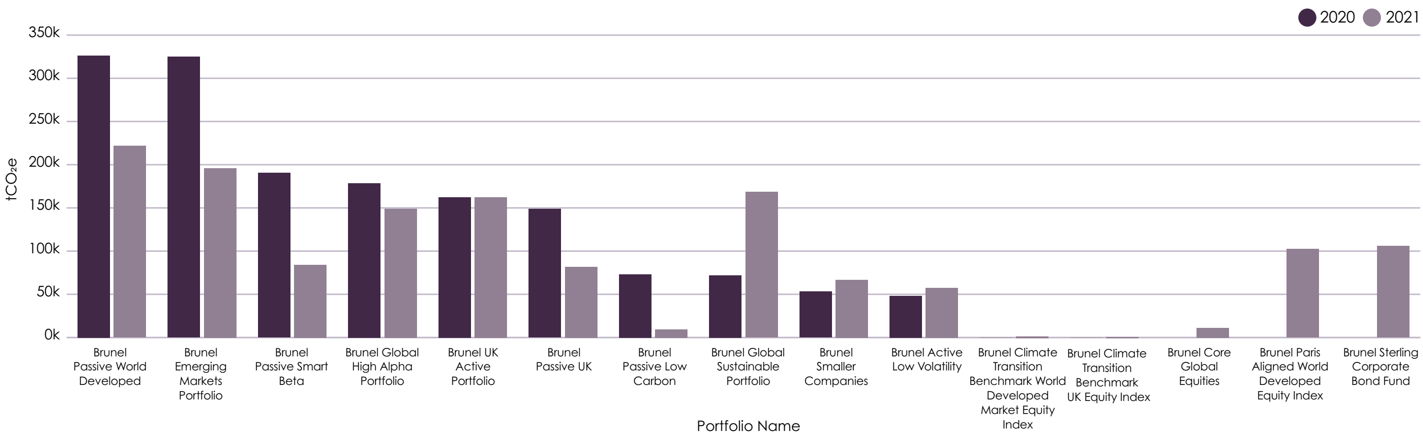
The Net Zero Investment Framework , published in March 2021, provides a common set of recommended actions, metrics and methodologies through which investors can maximise their contribution to achieving global Net Zero emissions by 2050 or sooner. The Framework is intended to be adopted and implemented by investors following a PAII Net Zero Asset Owner Commitment or a Net Zero Asset Managers initiative commitment.

Four asset classes – sovereign bonds, listed equities, corporate fixed income and real estate – were covered in the original framework. Since then, the Initiative has published guidance on target-setting and has researched and piloted methodologies for private equity, infrastructure, hedge funds and derivatives, and adaptation and resilience.

Status

Analysing a variety of carbon metrics is one of Brunel's principal tools for managing risks and identifying opportunities associated with climate change. The success of Brunel's approach to managing climate risk in its portfolios can be assessed in several ways. The first is how the portfolios' absolute emissions compare to previous years. As can be seen in Figure 1, Brunel's equity and fixed income portfolios are in general lower in absolute emissions in 2021 compared to 2020.

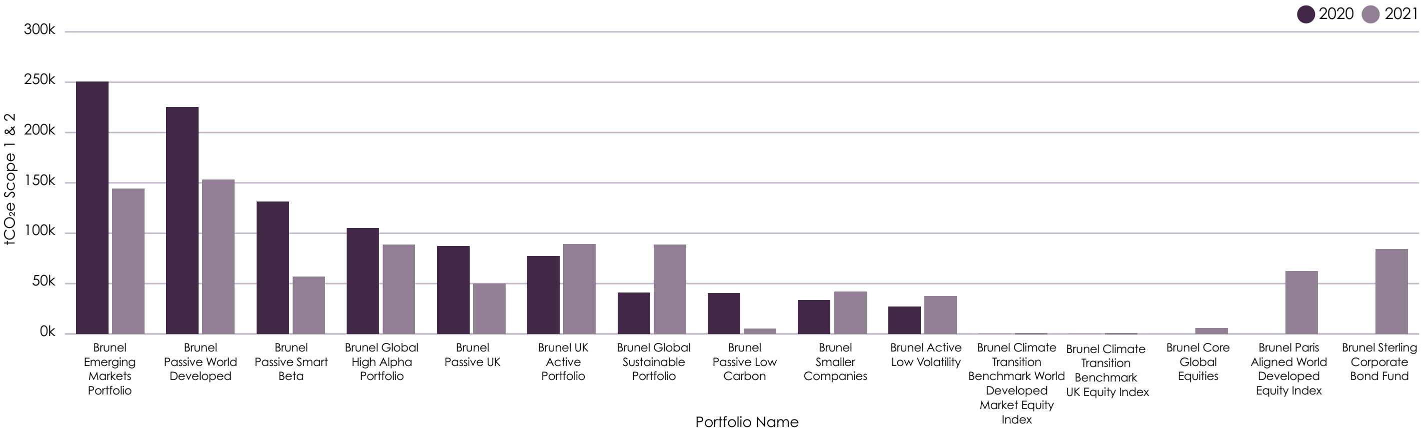
Figure 1: Historic Absolute Portfolio Carbon Emissions (as at 31 December 2020 and 2021)[ix]



In Figure 1, the performance of Brunel's sustainable equity portfolio might at first seem odd, but in 2021 managers were added to the sustainable equity portfolio that are actively targeting investments in companies who are at the forefront of the energy and industrial transition to Net Zero. These are leaders in challenging and difficult-to-abate sectors. These sectors inevitably have higher carbon emissions today than companies in most other sectors, whose own transition journey is dependent on such companies. These investments are essential to the transition, but existing tools and ways of measuring risk do not do them justice.

Figure 2 below shows absolute emissions normalised by the value invested. This metric allows for better comparison of different investment sizes across different time periods.

Figure 2: Normalised Historic Absolute Portfolio Carbon Emissions By Value Invested (as at 31 December 2020 and 2021)[x]



A third way of assessing performance is to look at trends in emissions. Table 3 presents the trends in carbon intensity for a selection of Brunel's investment portfolios.

Table 3: Weighted Average Carbon Intensity for a Sample of Brunel's Portfolioss[xi]

	Carbon Intensity (£m invested)		
Portfolio	2019 Baseline	2021 Portfolio	Reduction %
Active Portfolios			
Brunel UK Active	282	209.0	25.89%
Brunel Global High Alpha	301	149.3	50.37%
Brunel Emerging Markets Equities	570	382.7	32.89%
Brunel Active Low Volatility	334	214.7	35.70%
Brunel Global Sustainable Equities	334	282.3	15.44%
Passive Portfolios			
Brunel Climate Transition Benchmark UK Equity Index	281	229.3	18.47%
Brunel Paris Aligned World Developed Equity Index	303	171.5	43.42%
Brunel Climate Transition Benchmark Developed Market Equity Index	303	234.9	22.5%

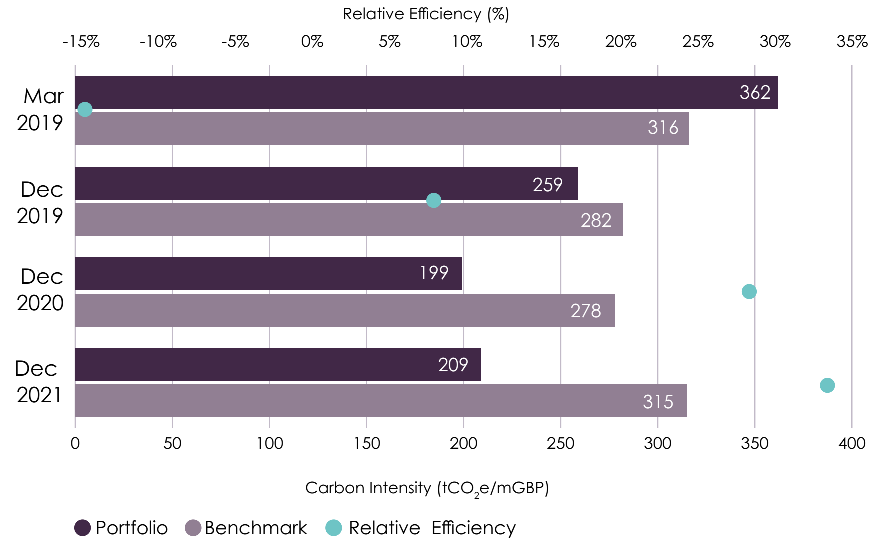
Case-study: Invesco

Over a period of 18 months, starting in January 2020, Brunel worked closely with Invesco, one of its UK managers, to decarbonise its UK Active Equity portfolio. Invesco uses an approach called quantitative investing, which uses proprietary modelling and data analysis to deliver the investment objectives. The solution to managing climate risk, therefore, had to follow the same quantitative approach, rather than using tools such as engagement with the companies.

This integration needed to meet a number of distinct objectives: stable and predictable carbon emission reductions over time; minimal impact on expected investment performance; and the ability to quantify the low-carbon impact on portfolio risk and return. Over the 18-month period, Brunel and Invesco experimented with different parameters and there was a significant sharing of data and research. This process led to the development of a bespoke low-carbon solution which integrated carbon data into the existing multi-factor strategy.

The outcome was a significant reduction in the carbon intensity of the Brunel UK Active portfolio. When it was first measured in March 2019, the portfolio carbon intensity was 362 tCO2e/mGBP), but, by December 2020, this had reduced to 199 tCO2e/mGBP – a reduction in intensity of 45 per cent over the 21-month time period.

Figure 2: Carbon Intensity of Brunel's UK Active Equity Portfolio (March 2019-December 2021)



Brunel has made very significant progress in assessing carbon performance for its listed equities and fixed income portfolios. It has now started to develop tools and methodologies for:

- Assessing climate physical risks, having worked closely with the IIGCC on its guidance documents on adaptation and climate resilience. Brunel has also undertaken some pilot scenario analysis on its active equity holdings, and has asked managers about how they assess these risks.
- Assessing transition risks, carbon footprints and portfolio exposures to climate solutions in other asset classes, with a particular focus on infrastructure and real assets.

P4: Positive Impact

We want to increase our investments in activities that directly support the low carbon transition and that enable effective adaptation to the unavoidable impacts of climate change.

Brunel's actions

Brunel has committed to investing in the energy/low carbon transition and to reporting on these investments. There are significant opportunities for investing in companies and assets that may benefit from the transition to a low carbon future.

For example, in equities, Brunel launched an active Global Sustainable Equities portfolio that uses strategy considerations of environmental and social sustainability in order to identify investment themes that contribute to society's sustainable development.

In private markets, Brunel has identified significant potential for investing in climate solutions, in particular in renewable technologies and sustainable infrastructure. Of course, while wind, solar and biomass generation are very much part of the solution to tackle climate change and move to a low carbon future, these investments are not without risk, particularly given the long lifetime of these assets. Brunel addresses this by ensuring that its due diligence processes cover the full life cycle of these assets, and also examines the supply chain and technology risks associated with these technologies.

Brunel has also started work to more fully describe and report the level of its investments in these sustainability-related themes.

Status

Brunel's private market investments

Renewable energy investments are a core component in Brunel's private market investments. At the end of 2021, these represented in excess of 35% of cycle 1 commitments and at least 50% of cycle 2 commitments within Brunel's infrastructure portfolios.

Brunel has run a sustainable investment analysis pilot within private markets to support clients in financially quantifying their sustainable exposure. This pilot was built upon the FTSE Russell methodology used in listed markets to try and establish a metric that can be used across asset classes. This will support clients in understanding their sustainable exposure for targets set around strategic asset allocation.

Case-study: Launching the Cornwall Local Impact portfolio

Brunel launched the Cornwall Local Impact portfolio in July 2022, with the purpose of channelling LGPS investment into affordable private rental housing and renewables in the county of Cornwall, creating a positive impact on local communities. The portfolio was commissioned by Cornwall Pension Fund, a client of Brunel, with the goal of pursuing local impact investment across both social and environmental priorities. The portfolio breaks new ground by becoming the first multi-asset portfolio to target local impact across the LGPS. Its three mandates are divided between affordable housing in Cornwall; renewables in Cornwall; and renewables across the UK. These mandates focus on the adaptation of Cornwall infrastructure and energy mix, to enable and support a low-carbon transition both locally, and in the UK.

The portfolio targets a net 5.0% annual internal rate of return over a rolling 7- 10-year period. Key Performance Indicators have been identified to track and monitor both the social and environmental impacts of the investments that will be made.

This project was core to Brunel's win of the Europe-wide IPE Impact Investing award, which recognises excellence in pensions across Europe.

Case-study: Financing the Orchard Street Social and Environmental Impact Partnership Impact Fund

Brunel is the Fund's cornerstone investor on behalf of eight of its ten underlying local authority partner funds, with a close to £90 million committed to this private market venture. This is an impact fund launched by Orchard Street Investment Management LLP and will target value-add real estate investment opportunities with the potential to generate a measurable positive social and environmental impact. Specifically, it focuses on the three impact areas: decarbonising existing buildings via an accelerated programme of refurbishment; investing in local communities through a proprietary place-based needs model to identify and respond to local social issues; and making buildings healthier for the people who work in them through actions such as improving air quality and greenspace access. These impact areas prioritise effective adaptation of local communities to the impacts of climate change, a key focus for Brunel.

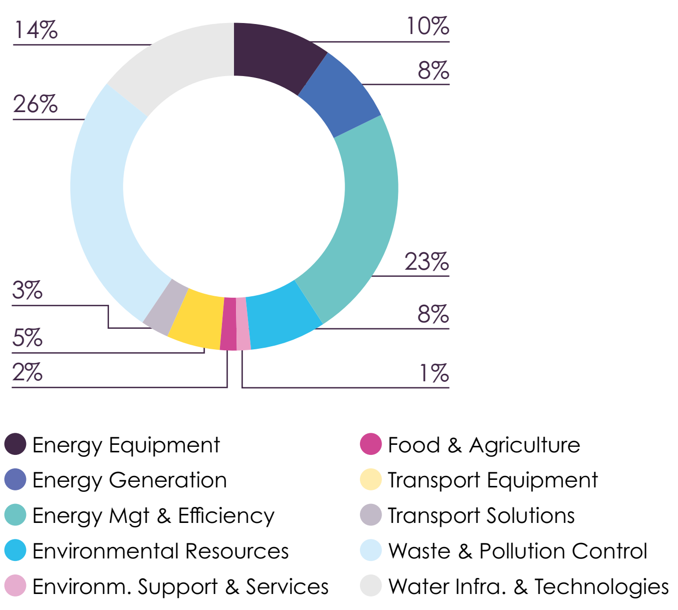
Case-study: Decarbonising hard-to-abate sectors in private markets

Investing in real world decarbonisation is central to Brunel's approach in both public and private markets. One example of such investments is the Infracapital Infrastructure fund which is held in Brunel's Cycle 2 Infrastructure portfolio. The fund is focused on providing innovative energy-saving technologies required to connect smart cities and tackle hard-to-decarbonise' sectors. This includes technologies such as rural fibre, water connections, sustainable heat pumps, electric vehicles and charging, battery technology and industrial energy solutions. One example is Energy Nest – a market leader in thermal battery solutions. This cost-effective technology enables both the transfer of industrial waste heat into electricity and the use of renewable power in industrial heat processes. The company is well-positioned to solve key challenges related to the energy transition, such as variable and intermittent renewables.

Case-study: Measuring positive impact in the Brunel Sustainable Equities Portfolio

Brunel used the FTSE Russell Green Revenues dataset to assess the exposure of its Sustainable Equities Portfolio to companies delivering environmental solutions in areas such as energy generation, energy efficiency, food and agriculture, transportation, and water infrastructure and technology.

As at the end of June 2022, the portfolio had 11.6% exposure to green revenues Tier 1 and 2 compared to 7.4% in its benchmark, the FTSE All-World. The majority of green revenues (26.3%) came from waste and pollution control technologies and solutions, followed by energy management and efficiency (23.3%) and energy equipment (9.8%).

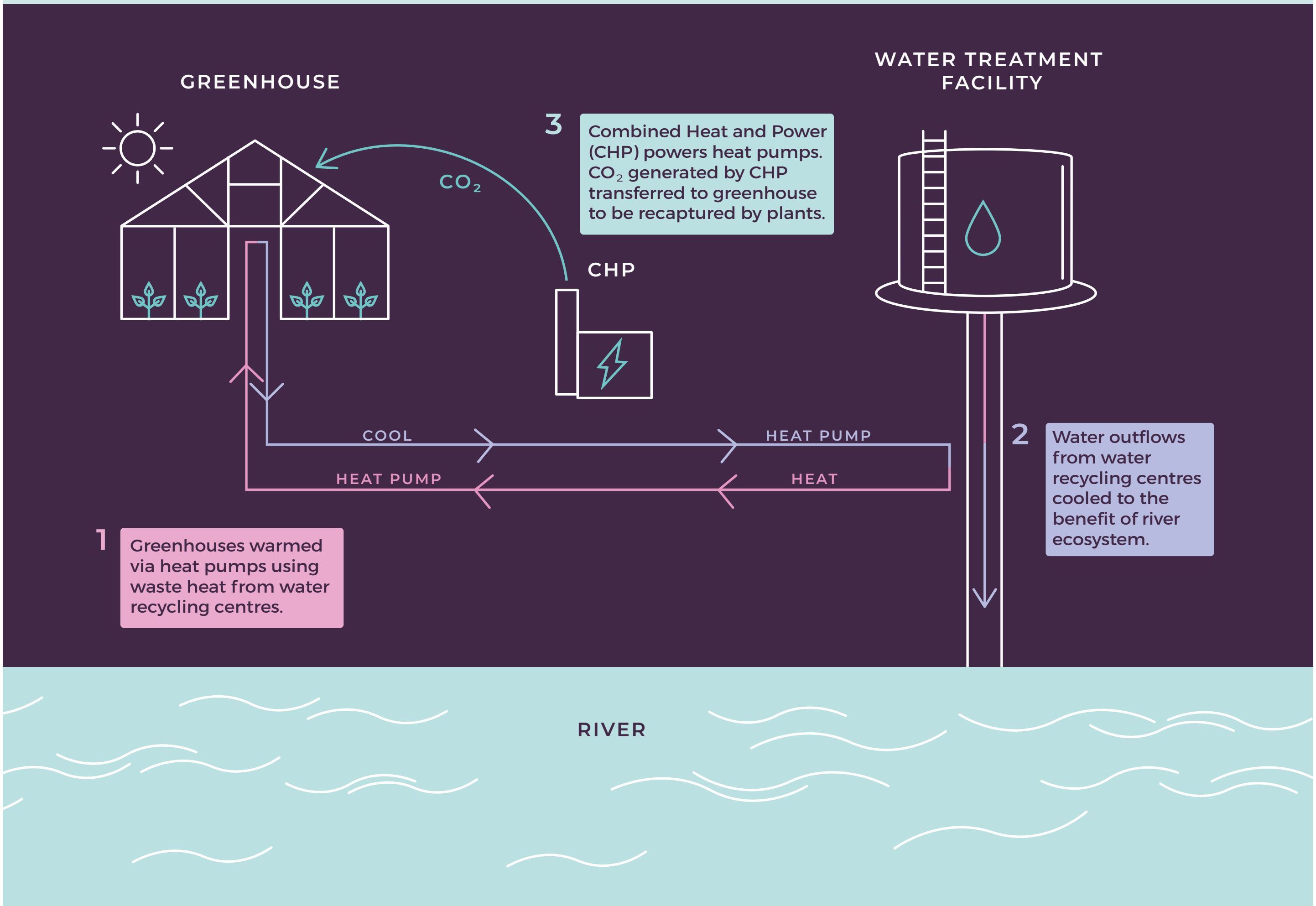


Case Study: Sustainable agriculture in East Anglia

The Brunel Secured Income Fund is invested in the world's first ever low-carbon greenhouses via Greencoat Capital. The two greenhouses, which cover more than 70 acres (the size of 46 football pitches), are warmed via heat pumps using water from recycling centres, and energy will be provided by a Combined Heat and Power (CHP) plant. The waste heat comes from sewage treatment works, which would otherwise flow into and heat up local rivers. The CO^2 generated from the CHP plants is transferred into the greenhouses to be recaptured by the growing plants.

The greenhouses are 7m-tall glass structures and allow crops to grow vertically along line wires from hydroponically-nutrient-rich water solutions instead of soil. The project uses one tenth of the water of conventional field farming. In addition, rainwater is captured from the building's roof and is recirculated to ensure no wastage.

In addition to environmental benefits, the project will create 137 permanent jobs in Norfolk and Suffolk, and an additional 117 seasonal jobs.



P5: Persuasion

We want the companies and other entities in which we invest to support the transition to a low carbon economy, and to ensure that they are resilient to the unavoidable impacts of climate change.

Brunel's actions

Brunel has three main strategies that it uses to persuade companies and other entities to act on climate change, namely: (a) direct engagement, including voting its shareholdings, (b) collaborative engagement, in particular through Climate Action 100+ (CA100+), and (c) engagement via its investment managers.

In relation to company engagement, Brunel expects companies in high-emitting sectors in particular to publish their climate transition action plan, and to annually disclose emissions and progress against their commitments and targets. These expectations apply across all of the asset classes that Brunel invests in. In listed equities (and fixed income, in cases where investors are granted formal voting rights), Brunel has built these expectations into its voting policy (see Box 4). The relationship between voting and other engagement strategies is presented in Box 5.

Box 4: Brunel's Voting Policy on Climate Change

Brunel will vote against the re-election of the company Chair where:

- Oil & Gas, Utilities, and all European companies have not at least reached Level 4 of the TPI framework
- A company has not reached level 3 of the TPI framework for the US and Asia, or where the TPI score has fallen from level 4
- A company's strategy is materially misaligned with the goals of the Paris Agreement
- A company's strategy is misaligned to Net Zero ambitions

Note that companies scored for the first time will be differentiated and reviewed on a case-by-case basis.

Collaboration is core to how Brunel looks to deliver its approach. Brunel is a member of the Institutional Investors Group on Climate Change (IIGCC), Climate Action 100+, Principles for Responsible Investment (PRI), and the Transition Pathway Initiative (TPI), amongst others. These partnerships contribute to Brunel's ability to identify strategies, tools and techniques to identify and evaluate climate-related financial risks across asset classes; to identify and assess what actions companies have taken, and how these companies are positioned relative to policy commitments, such as 1.5 degrees and National Determined Contributions (future pathways); to engage collaboratively with these companies; and to exercise voting rights in an effective manner.

In relation to investment managers, Brunel expects them to think deeply about all aspects of how they invest and how they engage with the companies and other entities in which they invest. Brunel does not issue exclusion lists to its managers because it believes that simply stating exclusions or requiring divestment from specific stocks or sectors will not compel investment managers to develop their capacity on climate change or to drive change in the companies in which they are invested. Essentially, it believes that exclusion lists mean that companies see climate change as a technical operational matter, not an investment priority. However, while Brunel does not instruct managers to exclude certain stocks, it does expect managers to have portfolios with materially reduced climate exposures, and to be able to justify any climate-controversial holdings. If investment managers are not able to robustly and credibly explain their investment strategies and how they have integrated climate risk, Brunel will look to replace them with investment managers that do. Furthermore, if Brunel finds that its investment managers' engagement with companies is ineffective, it will consider whether it should remove these managers and/or introduce specific exclusion criteria to be applied to companies.

Box 5: Brunel’s approach to escalation

Escalation is a key component of stewardship and, whilst it rarely follows a given pathway, this infographic provides some insights on Brunel’s approach. Some steps might be skipped or happen simultaneously and there may operational and legal constraints that prevent some actions being undertaken at all.

Not suitable for new fundraising/ refinance

Selective divestment (listed equity)

Climate change stocktake

Reduce exposure

Co-file shareholder resolution (segregated)
- Direct and frequent engagement with company management
- Request pool fund manager support/ voting alignment
- Statement made at AGM (or by fellow co-filer)

Escalated concern due to lack of company management action
- Publicly discuss concerns and or pre-declaration of voting intentions
- Consider AGM attendance/ question
- Index funding voting alignment considered

Specific concerns raised with Asset Manager
- Asset Manager (AM) specific action requested
- Vote against Chair and specific related resolutions (including shareholder resolutions – may increase to all directors in successive years)
- AM may decide to reduce/ exit exposure (active fundamental)

Targeted engagement
- Asset Manager engagement list
- Engagement service provider engagement targets

Thematic engagement
- Raise profile of issue with policy makers and regulators
- Collaborative engagement
- Voting in line with Stewardship Policy

CLIENT ENGAGEMENT

Status

Case-study: Banking

In December 2019, Brunel co-filed a shareholder resolution at Barclays, the first climate change resolution ever filed at a European bank, which resulted in the bank putting forward its ambition to become Net Zero by 2050. In 2020, a follow-up letter was sent to the CEO seeking a tightening of policies and timelines relating to fossil fuel lending. In 2022, Barclays published its updated climate plan ahead of a 'say on climate' shareholder vote, giving shareholders an opportunity to vote on the bank's climate strategy, targets and progress at the Annual General Meeting (AGM). Progress included Barclays setting 2030 targets to reduce financed emissions across energy, power, cement and steel; it set exit dates with respect to the financing of thermal coal mining and coal-fired power generation; and it aligned the remuneration of executive directors with climate commitments.

In 2020, Brunel co-filed a shareholder resolution at Europe's second-largest financier of fossil fuels, HSBC Bank. The resolution was subsequently withdrawn as it was replaced by a management-backed resolution committing the bank to phasing out its financing of the coal industry by 2030 in the OECD and by 2040 worldwide. HSBC also committed to publishing emission reduction targets for its oil and gas and power and utilities portfolios and to publishing a coal policy by the end of 2021. In withdrawing the shareholder resolution, Brunel wrote to HSBC's CEO and Chair, making it clear that further action would be taken if Brunel was dissatisfied with the bank's progress. The bank's coal policy failed to meet expectations and contained significant loopholes, resulting in Brunel co-filing another shareholder resolution for 2022. In response to the pressure from investors, in February 2022, HSBC announced new climate commitments, acknowledging the findings of IEA's Net Zero by 2050 report, which had proposed that, to achieve Net Zero emissions by 2050, there would need to be no new fossil fuel expansion. HSBC also committed to review and update its coal policy by the end of 2022 and confirmed it would be updating the scope of its fossil fuel targets to cover capital markets – a significant inclusion. Brunel welcomed the commitments in a letter to the Board, and also indicated that it planned to monitor the execution of these commitments closely.

The vital role the banking sector plays in aligning the real economy with the goal of Net Zero by 2050 is rising up investors' agenda. In April 2021, Brunel – alongside 35 investors representing $11 trillion in assets under management or advice – supported the IIGCC's Aligning the Banking Sector with the Goals of the Paris Agreement. The document lays out areas for action and disclosure required for banks to align with the goals of the Paris Agreement. The paper called on banks to set enhanced Net Zero targets for 2050 or sooner, to scale up green finance and to withdraw from projects that fail to meet Paris Agreement goals. The initiative supports 27 investor-led engagements with the world's largest banks, including the Royal Bank of Canada (RBC), where Brunel is directly supporting the engagement.

Box 6: Climate Governance

Brunel uses the TPI management quality scores to assess the transparency of companies' management of their greenhouse gas emissions and of risks and opportunities related to the low carbon transition.

Brunel's aim is to have all of its material holdings on TPI level 4 or above by end of 2022. Brunel uses the TPI management quality scores to assess the transparency of companies' management of their greenhouse gas emissions and of risks and opportunities related to the low carbon transition.

As of December 2021, within Brunel's active equity portfolios there were 82 companies covered by the TPI tool. Of these, 41 holdings (62.7% by investment value) were categorised as Level 4 or above.

The TPI Tool[xiii]

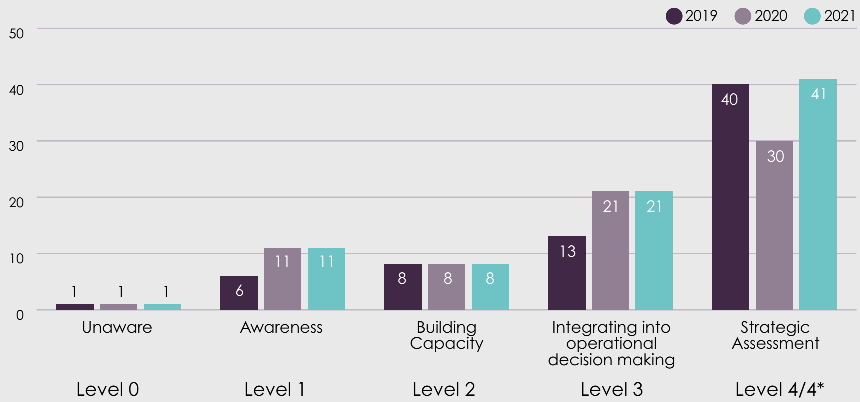
The Transition Pathway Initiative (TPI) is a global, asset-owner led initiative which assesses companies' preparedness for the transition to a low carbon economy. The TPI tool uses publicly available company information to assess:

- **Management quality:** The quality of companies' management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition.
- **Carbon performance:** How companies' carbon performance now and in the future might compare to the international targets and national pledges made as part of the Paris Agreement.

Companies' management quality is assessed annually across 17 indicators. Companies are placed on one of five levels:

- **Level 0** - Unaware of, or not acknowledging climate change as a business issue
- **Level 1** – Acknowledging climate change as a business issue
- **Level 2** – Building capacity
- **Level 3** – Integrating into operational decision-making
- **Level 4** – Strategic assessment

TPI Management Quality Brunel Active Equity Count



Stakeholder Perspectives

In April/May 2022, Chronos Sustainability (on Brunel's behalf) conducted a series of interviews with Member Funds and other stakeholders (see Box 7), with the aim of establishing what these different key stakeholder groups think of Brunel's approach to climate change. The feedback from these interviews was presented to Member Funds at the Brunel Client Workshop on 10 May 2022.

Box 7: Organisations interviewed

- Member Funds: 9
- Investment consultants: 2
- Responsible investment press: 2
- NGOs: 1
- Independent advisors: 1

In total, 20 individuals participated in the interviews.

General Perspectives

1. There is strong support among Member Funds for Brunel's overarching approach to climate change, in particular the focus on engagement and investment opportunities.
2. Overall, stakeholders felt that Brunel met or exceeded their expectations on climate change across each of the five elements of the Climate Policy. Interviewees agreed that Brunel is ahead of its peers on climate change, although some observed that the gap is closing as other LGPS pools have raised their game.
3. A recurring theme across the interviews was that gaps in data and methodologies – acknowledging that these are industry-wide issues and not unique to Brunel – limit stakeholders' ability to fully assess and understand Brunel's performance.

Key Insights on the Elements of the Policy

1. P1: Policy Advocacy

a. Brunel is recognised as a leader with interviewees pointing specifically to Brunel speaking at COP26 and the active role played by Brunel in collective initiatives such as IIGCC, Climate Action 100+, the Principles for Responsible Investment (PRI) and the Transition Pathway Initiative (TPI).

b. A number of interviewees commented that Brunel should provide a clear explanation of how these activities benefit the Member Funds.

2. P2: Product Governance

a. Member Funds were generally happy with the range of sustainability products offered by Brunel, and see Brunel as responsive to the demand for new/innovative products.

b. Interviewees pointed to the Paris-aligned equity product and to Brunel's work on Multi-asset Credit as examples of innovation and leadership.

c. Member Funds indicated that they were interested in sustainability-related products such as social impact funds, emerging market funds and climate opportunities and climate impact funds, although the scale of client demand for these products would need to be tested.

3. P3: Portfolio Management

a. The general feedback was that Brunel appears to be doing a good job in this area, although the industry-wide lack of credible data limits the ability of beneficiaries and Member Funds to robustly assess the outcomes being achieved.

4. P4: Positive Impact

a. Interviewees were supportive of Brunel's focus on positive impact although some interviewees commented that they did not have the data or the tools to make a robust assessment of Brunel's performance.

5. P5: Persuasion:

a. Member Funds strongly supported Brunel's emphasis on engagement, notably its collaborative engagement through organisations such as IIGCC and TPI, and its engagement with asset managers.

Communications

Interviewees were positive about Brunel's reporting (see Box 8), commending it for being thorough and comprehensive, and acknowledging that Brunel is very responsive to queries and requests for help and information. Interviewees also made a variety of suggestions on how Brunel could more effectively support Member Funds, including that Brunel should:

- More clearly explain which information is most important.
- Tailor the information provided to the specific needs and interests of different stakeholders.
- Explicitly discuss the practical challenges and the barriers to action.
- Explain the reasons for the actions being taken and the approach adopted on climate change.

Box 8: Brunel's client reporting

Brunel reports extensively on its website and to clients on its approach to climate change and to sustainability/ESG more generally. For example, Brunel provides:

- A quarterly report to clients and the general public that covers stewardship actions and carbon metrics, including emissions intensity and fossil fuel exposure.
- An overview of all portfolios to the Board and Brunel Oversight Board (clients and stakeholders).
- Detailed annual public carbon metrics reports for each client and each Brunel portfolio, and a broader Brunel-wide Carbon Metrics Report.
- An annual public Responsible Investment and Stewardship Outcomes report.
- An annual public TCFD report.
- Copies of all of its submissions to government consultations.

A list of notable publications is provided in the Appendix to this report.

Appendix: Supplementary Information

Brunel provides extensive information on its approach to climate change and stewardship more generally on the website. Some key publications are provided below.

Climate Change Policy and Related Documents:

- Climate Change Policy, https://www.brunelpensionpartnership.org/wp-content/uploads/2020/01/Brunel-Climate-Change-Policy-rev01.pdf
- Climate Change Policy: Summary, https://www.brunelpensionpartnership.org/wp-content/uploads/2020/01/Brunel-Climate-Change-Summary.pdf
- Climate Change Briefing: A Supplement to Brunel's Climate Change Policy, https://www.brunelpensionpartnership.org/wp-content/uploads/2020/01/Brunel-Climate-Change-Briefing.pdf

Responsible Investment and Stewardship

- 2022 Responsible Investment and Stewardship Outcomes Report (for year ending 31 December 2021), https://www.brunelpensionpartnership.org/wp-content/uploads/2022/04/Brunel-Outcomes-Report-2022.pdf
- 2021 Responsible Investment and Stewardship Outcomes Report (for year ending 31 December 2020), https://www.brunelpensionpartnership.org/wp-content/uploads/2021/05/Brunel-Outcomes-Report-2021.pdf
- 2020 Responsible Investment and Stewardship Outcomes Report (for year ending 31 December 2019), https://www.brunelpensionpartnership.org/wp-content/uploads/2020/06/Brunel-2020-Responsible-Investment-and-Stewardship-Outcomes-Report.pdf

TCFD

- Climate Change Action Report 2021 (2021), https://www.brunelpensionpartnership.org/wp-content/uploads/2021/04/Brunel-TCFD-Report_2021.pdf

Climate Data and Metrics:

- See https://www.brunelpensionpartnership.org/climate-change/carbon-metrics-report/ for:

o Brunel Pension Partnership: 2022 Carbon Metrics Report

o Brunel Pension Partnership: 2021 Carbon Metrics Report

o Brunel Pension Partnership: 2020 Carbon Metrics Report

Policy Advocacy

- For copies of Brunel's response to specific consultations: https://www.brunelpensionpartnership.org/stewardship/policy-advocacy/
- Reviewing the Effectiveness of Brunel Pension Partnership's Policy Advocacy 2020-2022, https://www.brunelpensionpartnership.org/wp-content/uploads/2022/04/Brunel_Policy_Advocacy_1.pdf

Endnotes

i Brunel publishes all of its consultation responses at: https://www.brunelpensionpartnership.org/stewardship/policy-advocacy/

ii In April 2022, Brunel produced a short report, Reviewing the Effectiveness of Brunel Pension Partnership's Policy Advocacy 2020-2022 which describes Brunel's policy advocacy activities and describes how climate-related policy has progressed since 2020. See https://www.brunelpensionpartnership.org/wp-content/uploads/2022/04/Brunel_Policy_Advocacy_1.pdf

iii OECD (2021), Carbon Pricing in Times of COVID-19: What Has Changed in G20 Economies?, https://www.oecd.org/ctp/tax-policy/carbon-pricing-in-times-of-covid-19-what-has-changed-in-g20-economies.htm

iv World Bank Group (2021), State and Trends of Carbon Pricing 2021, https://openknowledge.worldbank.org/handle/10986/35620

v World Trade Organisation (2022), Trade and Climate Change, https://www.wto.org/english/tratop_e/envir_e/climate_intro_e.htm (last viewed 21 September 2022). UNCTAD (the UN Commission on Trade and Development) has made similar comments; see https://unctad.org/news/investment-treaty-regime-needs-reforms-support-climate-action

vi Brunel Pension Partnership (2018), Brunel Asset Management Accord, https://www.brunelpensionpartnership.org/wp-content/uploads/2018/11/Brunel-Asset-Management-Accord-2018.pdf

vii https://www.iigcc.org/our-work/paris-aligned-investment-initiative/

viii https://www.iigcc.org/download/net-zero-investment-framework-implementation-guide/?wpdmdl=4425&refresh=6357e9cc1b5011666705868

ix Based on data provided by S&P Trucost Limited ("Trucost"), an affiliate of S&P Global Market Intelligence.

x Based on data provided by S&P Trucost Limited ("Trucost"), an affiliate of S&P Global Market Intelligence.

xi Analysis based on data provided by S&P Trucost Limited ("Trucost"), an affiliate of S&P Global Market Intelligence. (as at 31 December 2021)

xii See, for example, IIGCC (2022), Working Towards a Climate Resilience Investment Framework: A Discussion Paper by IIGCC, https://www.iigcc.org/download/working-towards-a-climate-resilience-investment-framework-2/?wpdmdl=6394&refresh=632c4168d267e1663844712; IIGCC (2020), Understanding Physical Climate Risks and Opportunities, https://www.iigcc.org/download/understanding-physical-climate-risks-and-opportunities-a-guide-for-investors/?wpdmdl=3388&refresh=632c416be8d5a1663844715; IIGCC (2020), Addressing Physical Climate Risks: Key Steps for Asset Owners and Asset Managers, https://www.iigcc.org/download/addressing-physical-climate-risks-and-opportunities/?wpdmdl=3384&refresh=632c416d7a5a51663844717

xiii For more information see www.transitionpathwayinitiative.org

This report has been prepared by Chronos Sustainability on behalf of Brunel Pension Partnership.

Chronos Sustainability is a specialist advisory company with particular expertise in responsible investment. Established in 2017, Chronos has worked extensively with global investors to build their understanding of the investment implications of sustainability-related issues.

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