Oxfordshire Pension Fund
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Oxfordshire County Council Pension Fund TCFD Report 2022/23

August 2023

Oxfordshire County Council Pension Fund Taskforce on Climate-related Financial Disclosures Report 2022/23

Introduction

This is the Oxfordshire Pension Fund's third report under the Taskforce on Climate-related Financial Disclosures (TCFD) framework. As well as reporting against the TCFD recommendations the report is intended to review the progress made against the Fund's Climate Change Policy and Implementation Plan which were agreed in June 2020.

August 2021 saw the Intergovernmental Panel on Climate Change (IPCC) publish the first report in its Sixth Assessment Cycle covering the physical science basis. This was followed by two further reports in 2022 on impacts, adaptations and vulnerability, and mitigation of climate change. The reports are unequivocal that current action to reduce GHG emissions are inadequate to limit warming to 1.5°C, and that the consequences of failing to limit warming to this level will be dire.

The United Nations Environment Programme's 2022 Emissions Gap Report shows how far off-target the world currently is from meeting a commitment of keeping global temperature rise below 1.5°C. According to the report, policies currently in place point to a 2.8°C temperature rise by the end of the century. Implementation of the current pledges will only reduce this to a 2.4-2.6°C temperature rise by the end of the century, for conditional and unconditional pledges respectively. These temperatures are well above the goals of the Paris agreement and would lead to catastrophic changes in the Earth's climate, with severe associated damage to society and the economy

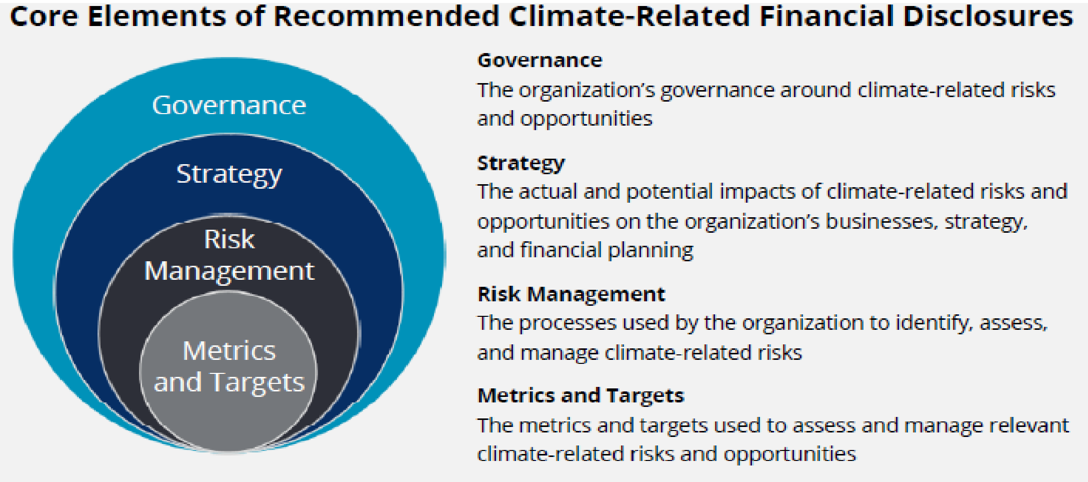
Both reports still give some cause for optimism in that they state that there is time for a technically feasible, cost-effective, and socially acceptable pathway to achieve net zero by 2050. However, the pathways are narrow and extremely challenging and require a rapid step up in the commitments and actions of all stakeholders across the globe.

The UNEP report identifies the financial system as key to moving the global economy into alignment with a 1.5°C pathway. "Realignment of the financial system is a critical enabler of the transformations needed".

Background to the TCFD

In 2017 the TCFD released its recommendations for improved transparency by companies, asset managers, asset owners, banks, and insurance companies on how climate-related risks and opportunities are being managed. Supporters of the TCFD total over 3,800 organisations across 92 countries. The Task Force consists of 35 members from across the G20, representing both users and preparers of financial disclosures, and is currently chaired by Michael R. Bloomberg founder of Bloomberg L.P.

The TCFD was established to develop recommendations for more effective climate-related disclosures that could promote more informed investment, credit, and insurance underwriting decisions and, in turn, enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks. The four core elements of the recommended disclosures are detailed in the diagram below.



(Recommendations of the Task Force on Climate-related Financial Disclosures, 2017)

The TCFD recommendations on climate-related financial disclosures are intended to be widely adoptable and applicable to organisations across sectors and jurisdictions.

In November 2020, the UK Government announced its 'TCFD road-map' with a commitment to roll out statutory TCFD compliant disclosure across the finance sector by 2025. This is underway with regulators having made, or being in the process of making, TCFD based reporting mandatory and having published guidance on the implementation of the recommendations relevant to the sector in question. The table below shows the announced TCFD implementation plans in the UK.

Financial Conduct Authority	Implementation Date
UK Listed Companies	2021
Large UK-Registered Private Companies	2023
Department for Work & Pensions (DWP)	
Occupational Pension Schemes	2021

At present there is no requirement for LGPS funds to report under TCFD. However, the Department for Levelling Up, Housing & Communities (DLUHC) has stated that it intends for TCFD reporting in the LGPS to become mandatory and intends to issue guidance on this in due course. The Pension Fund determined in its Climate Change Policy Implementation Plan that a TCFD report would be included in its 2020/21 Annual Report and in each Annual Report going forwards.

This report looks to align the Oxfordshire Pension Fund's reporting under the TCFD framework with the expectations outlined in draft guidance produced by DLUHC.

Governance

TCFD Recommended Disclosure - a. Describe the board's oversight of climate-related risks and opportunities.

The Fund's governance arrangements are set out in its Governance Policy Statement. All functions relating to the management of the Pension Fund have been delegated by Oxfordshire County Council to the Pension Fund Committee. As such, the Committee are responsible for the Fund's long-term strategy.

The Pension Fund Committee are responsible for setting the Fund's Investment Strategy Statement which includes the approach to responsible investment. The Fund has an Independent Investment Adviser who provides investment advice to the Fund including on investment strategy, this includes the integration of climate change related risk assessment into the investment approach of the Fund.

Climate change is considered in the budget setting process in terms of training requirements, any climate related consultancy deemed beneficial, and climate related reporting requirements.

In June 2020 the Pension Fund Committee agreed a Climate Change Policy and Climate Change Policy Implementation Plan. Progress against the Policy and Implementation Plan is to be reported to Committee quarterly with a more detailed annual review. Climate change is included as one of the four key items on the Pension Fund's Annual Business Plan.

Following agreement of the Policy a Climate Change Working Group was formed which currently comprises of Committee members, a Local Pension Board member, Fund officers, the Fund's Independent Investment Adviser, a scheme member representative, and a member of the Fossil Free Oxfordshire campaign group. The Working Group aims to meet quarterly and report back to the Committee at its quarterly meetings.

As required by LGPS regulations, the Pension Fund operates a Local Pension Board which meets on a quarterly basis. The Board's role is to ensure the efficient and effective governance and administration of the Fund, including compliance with relevant regulations and legislation that apply to the Fund.

The Fund, along with nine other LGPS funds, is a part of the Brunel Pension Partnership which develops investment portfolios that are made available to client funds to invest in. Under pooling requirements set by the government the Pension Fund is required to make all investments through Brunel while maintaining responsibility for asset allocation decisions. The key bodies where the Fund interacts with Brunel are the Client Group, Brunel Oversight Board, and Shareholder Forum where fund representatives and Brunel meet. There is also a Responsible Investment sub-Group where discussions take place between Brunel and the various client funds about the approach to assessing and managing climate related risks, amongst other issues.

Climate related risks and opportunities form a key part of the reporting received from Brunel on their portfolios and activities and Brunel has a dedicated responsible investment team.

As the asset manager responsible for appointing sub-asset managers, Brunel has a key role ensuring that climate related risks and opportunities are integrated into the investment process. In fact, Brunel go beyond this, with a stated aim 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 1.5°C compared to pre-industrial levels.*"

In practical terms this translates into a focus on five principal areas, as shown in the chart below: Policy Advocacy; Product Governance; Portfolio Management; Persuasion; and Positive Impact.

Brunel regularly publishes its own plans and performance in this area – going beyond regulatory requirements. Brunel's annual RI & Stewardship Outcomes Report considers performance in meeting Brunel's responsible investment goals – including on climate change; their annual Carbon Metrics Report shows the exposure of all its active holdings; and the TCFD Climate Action Plan reports on Brunel's progress around climate metrics and targets.

Brunel published its first Climate Change Policy in 2020. In 2022, a Climate Stocktake was undertaken to review this Policy. Following an extensive consultation and review that considered each of the five areas shown in the diagram above, in February 2023 Brunel published its new Climate Change Policy 2023-30.

TCFD Recommended Disclosure – b. Describe management's role in assessing and managing climate-related risks and opportunities.

Day-to-day management of the Fund's Climate Change Policy implementation is delegated to management through the Director of Finance and it is required to report progress to the Pension Fund Committee quarterly. Management receive an annual carbon metrics report from Brunel, which informs its reporting to Committee.

Management engage with Brunel and other Fund Managers on climate issues and receive and consider responsible investment reporting, including climate related, that is included in Fund Managers' quarterly reports. The Fund has an officer representative on the Brunel Responsible Investment Sub-Group and Cross-Pool Responsible Investment Group where developments around climate issues are regularly discussed (e.g. metrics developments, engagement activities and results).

In order to increase capacity in this area, the Fund created a new post of Responsible Investment Officer, which was filled in April 2023. A key area of responsibility for this role is around monitoring and reporting on the Fund's climate related risks and how these are being managed.

Management is responsible for developing and operating a training plan for Committee members and Officers to ensure appropriate skills and knowledge.

Strategy

TCFD Recommended Disclosure – a. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

The Pension Fund has liabilities that stretch decades into the future and so primarily takes a long-term view to investment decisions. Given the diversity and global nature of the Fund's investments almost all climate related risks and opportunities are relevant to the Fund. While some of the climate-related risks/opportunities apply to the Fund across its investments as a whole, others are specific to certain sectors or geographies and fund managers are required to consider the materiality of these.

The most significant long-term risk is the systemic risk across financial markets, including social and other factors, associated with climate change that could arise if actions are not taken to adhere to the Paris Agreement. Setting a target of Net Zero Paris alignment by 2050 is a commitment by the Fund to help to manage and mitigate that systemic risk, with a view to being able to meet the Fund's liabilities into the future.

In terms of more specific and short/medium-term risks - stranded assets, physical risks (e.g. property), sovereign debt where countries are dependent on fossil fuel linked revenue, policy risk (e.g. carbon pricing), technology risk (obsolescence), social and economic disruption as the result of a transition away from a fossil fuel-based economy and changes in consumer behavior are all factors that can affect the Fund's investments. There is also a risk that the Fund develops its investment strategy around achievement of the Paris goals but the goals are not achieved, meaning the Fund's investment strategy is misaligned with the reality of the actual climate path.

The Fund has identified climate related opportunities including the ability to reduce portfolio risk by identifying and taking action on assets at risk under Paris aligned scenarios and the potential to identify outperformance opportunities by investing in those companies whose business models/strategies are best aligned with meeting Paris Agreement scenarios. Additionally, investment opportunities exist in assets linked to the implementation of the Paris Agreement (e.g. clean energy infrastructure).

TCFD Recommended Disclosure – b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

Climate change is considered in the development of the Fund's Investment Strategy Statement, which includes the Fund's strategic asset allocation. After each funding valuation undertaken by the actuary the Fund completes a fundamental review of its asset allocation which will consider climate related risk and opportunities. The fund uses diversification to manage investment risks but given the systemic nature of climate risks this limits its effectiveness under more extreme scenarios.

The Fund's Climate Change Policy states that where there are two investment options that broadly aim to deliver the same investment objective the Pension Fund will prioritise the option that delivers the best fit to its climate change commitment. For example, consistent with this principle the Fund moved around 15% of the Fund from regular market-cap index trackers to a Paris aligned benchmark alternative in 2020.

Climate related risks and opportunities are considered when setting the Pension Fund's Business Plan and these also inform discussions with Brunel around portfolio offerings and construction.

The Pension Fund has made a commitment to achieve net-zero emissions on its own operations by 2030.

TCFD Recommended Disclosure – c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

The Fund is committed through its Climate Change Policy to keeping abreast of the latest scientific developments in respect of climate change to ensure that the Policy remains appropriate in its aim to align with the Paris Agreement.

Under a scenario where additional cuts in emissions are required to meet the Paris Agreement, and there was a global commitment to achieve this, the Fund would anticipate amending its target for emissions reductions across its investments accordingly and making any necessary changes to its asset allocation targets and/or investment portfolios.

Under a scenario where the Paris Agreement goals were to be overshot the Fund would consider making changes to its investments that align with this reality, this would likely include mitigating physical risks that would be associated with such a scenario. The Fund would also review whether there are changes the Fund could make, for example in engagement activity or policy advocacy, that could help correct the scenario back towards a Paris aligned one.

The draft government guidance by DLUHC on TCFD implementation proposes to place a new duty on LGPS Administering Authorities (AAs) to assess their assets, liabilities, investment strategy and funding strategy against climate risks and opportunities in at least two climate scenarios. This assessment must include at least one scenario based on a global temperature rise of 2°C or lower on pre-industrial levels. This assessment must occur at least once every valuation cycle. In interim years, AAs must consider whether any changes in the fund have been substantial enough to require scenario analysis to be repeated.

The Fund has not yet undertaken a scenario analysis exercise and acknowledges that this is a developing area. The Fund recognises the value of scenario analysis based on different climate scenarios and has committed to undertaking an exercise in its Implementation Plan, the results of which are to be incorporated into the Fund's fundamental asset allocation review process. Any scenario analysis would be intended to consider both the asset and liability implications for the Fund.

Given that the intention under government pooling guidance is for all Fund investments to take place via Brunel's portfolios, it makes sense for the Fund's scenario planning to be based upon scenario planning carried out by Brunel. This work by Brunel is due to take place in late 2023 or early 2024. As such, it is the aim of the Fund to include scenario planning based on the modelling carried out by Brunel in the next cycle of TCFD reporting in 2024.

Risk Management

TCFD Recommended Disclosure – a. Describe the organization's processes for identifying and assessing climate-related risks.

Climate change is included on the Fund's risk register, which considers impact and likelihood in assigning a score. The risk register is reviewed on a quarterly basis and reported to Committee at each meeting. Officers consider regulatory, scientific and political developments on climate change, in particular those from recognised international bodies such as IIGCC, International Energy Agency, and the UN Environmental Programme.

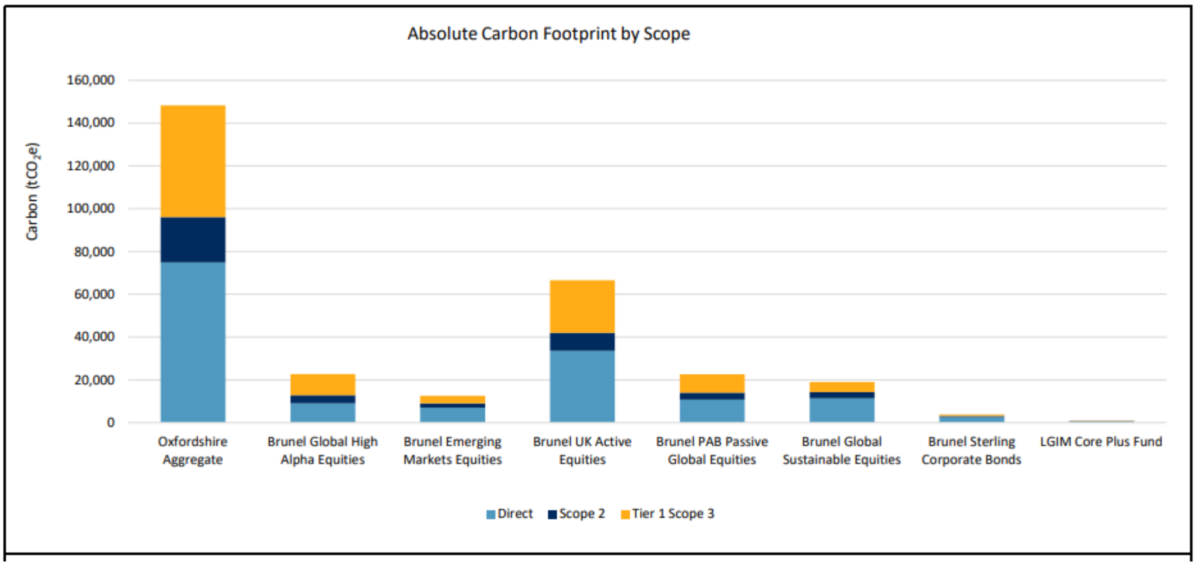
The Fund meets regularly with Brunel and discusses climate issues including any identified from the narrative reporting or climate metrics provided by Brunel.

Brunel in turn meet with their appointed fund managers who also have a responsibility to consider climate related risks and opportunities. For example, Brunel have a target for all companies held in their portfolios to achieve a Transition Pathway Initiative score of 4 or higher. The Responsible Investment Sub-Group at Brunel provides an additional forum to discuss climate related risks with Brunel.

Case Study - reallocation from the UK Equity Portfolio

The graph below is taken from the 2023 Brunel Climate Metrics report for the Oxfordshire Fund. It shows the 2022 absolute carbon footprint for the Fund, at both an aggregated fund level and at portfolio level. This data shows that around half of the aggregated absolute carbon footprint of the Fund originated in the UK Active Equities Portfolio.

This information, alongside other data in the Carbon Metrics report on fossil fuel reserves, where the UK Active Equities Portfolio had the greatest exposure, helped inform a decision by the Pension Fund Committee in June 2023 to reallocate around 5% of the overall Fund value away from the UK Active Equities portfolio and into the Global Sustainable Equities and Passive World Developed PAB portfolios. In addition, for the remaining 10% allocation to UK Equities the Fund determined to move away from the FTSE100 which has a high weighting to emissions intensive companies to a broader UK benchmark incorporating small and mid-cap companies.



TCFD Recommended Disclosure - b. Describe the organization's processes for managing climate-related risks.

The Fund is responsible for asset allocation decisions and sets its asset allocation targets to be consistent with the Fund's Climate Change Policy. Where the Fund identifies investment needs that are not currently deliverable from Brunel portfolios there is a process for the creation of new portfolios by Brunel that can meet that need.

The key method by which the Fund's risk is managed is through diversification of investment into a variety of asset classes. Within this strategy there is also embedded an approach of integrating climate change risk management into the investment process.

Case Study – climate change opportunities in private markets:

Through Brunel the Fund invests into private market portfolios, including an infrastructure portfolio with a skew towards renewable technologies and sustainable infrastructure. Climate risk, in terms of both transition and physical risks, is fully embedded into the approach of Brunel's private markets team. The risks are managed to maximise effectiveness in each of the strategies but are also appropriate for the level of control Brunel can exercise in different vehicles.

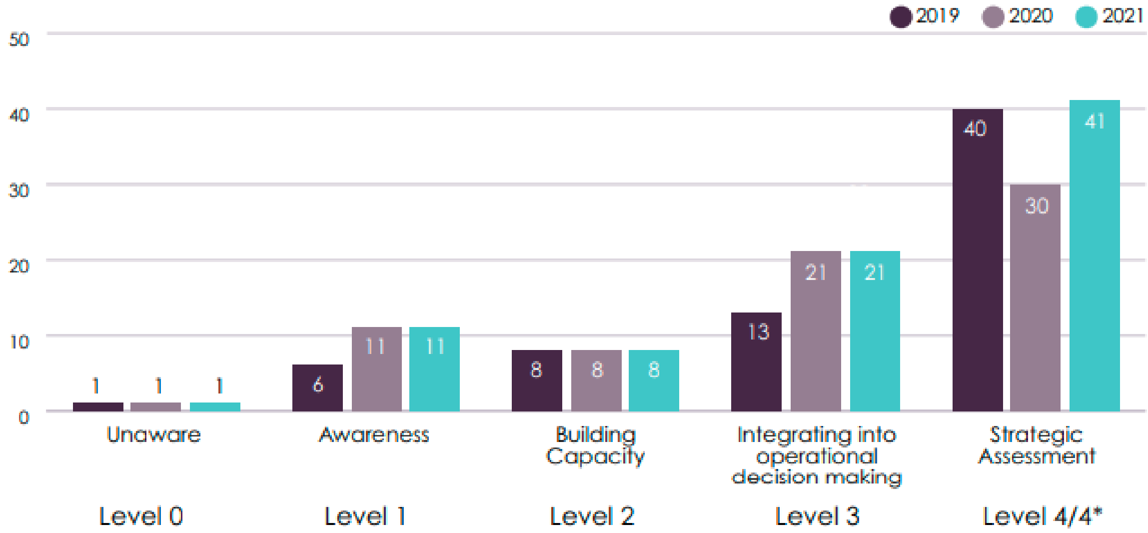
The private market portfolios are also the area where Brunel has identified significant potential for investing in climate solutions. Renewable energy investments are a core component in Brunel's private market investments, representing in excess of 35% of cycle 1 commitments and at least 50% of cycle 2 commitments within its infrastructure portfolios.

Case study: solar energy infrastructure investment

Springbok is a 448 Megawatt solar development in Kern County, California, one of the largest solar developments in the world. The fund is invested, through Cycle 1, in the development of the site through the Capital Dynamics Clean Energy Infrastructure VII-A fund.

Voting and engagement form an important part of the Fund's management of climate-related risks. Engagement on behalf of the Pension Fund primarily takes place through Brunel, their appointed fund managers, and their engagement provider, in accordance with the approach set out in Brunel's Climate Change Policy to which the Fund is able to input. Voting is undertaken on behalf of the Fund by Brunel, utilising the expertise of their voting and engagement provider and appointed managers.

Brunel's approach to voting escalation sees an initial vote against the reappointment of a company Chair escalate to other board members where they have not met their climate disclosure expectations. These expectations will increase over time with the target of all their material holdings being on the Transition Pathway Initiative (TPI) Level 4, and having made meaningful progress to alignment with a 2 degree or below pathway. The chart below shows the available TPI scores for 2019 - 2021 across Brunel's listed equity portfolios.



Case study - AGM voting at Shell and BP in 2023

During 2023 senior management at both BP and Shell announced that they were weakening the medium-term fossil fuel reduction targets set in the previous year. The targets being rolled back had been endorsed by shareholders in the previous year, and the decision to weaken those targets was not consulted on with shareholders beforehand. In response to this Brunel, alongside other pension funds such as USS and the Church Commissioners, voted against the reappointment of the Chairs of both companies at their 2023 AGMs.

In a follow up action Faith Ward, Brunel's Chief Responsible Investment Officer, in her role as Chair of the UK Asset Owner Roundtable, will be convening a meeting of major fund managers following the proxy season. This is in response to concerns that have been raised by several members of the UK Asset Owner Roundtable about a perceived misalignment between their long-term interests as asset owners and how investment managers are exercising proxy voting at key annual general meetings of European oil and gas majors.

The Fund, through Brunel and the Fund's membership of the Institutional Investors Group on Climate Change (IIGCC), is involved in the development of Paris Aligned Portfolios under the IIGCC's Net Zero Framework. It is intended that this work will lead to all portfolios offered by Brunel being Paris aligned eventually.

The Fund believes that in some areas, particularly around public policy engagement, it is beneficial for the Fund to act with like-minded investors. As such, the Fund is a member of investor groups whose aims are aligned with those of the Fund in respect of climate change (Climate Action 100+, Institutional Investors Group on Climate Change, Local Authority Pension Fund Forum).

TCFD Recommended Disclosure – c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

Climate change is included on the Fund's risk register, which is a standing item at the quarterly Committee meetings. Climate change is a key topic included as part of the Committee training plan to ensure appropriate skills and knowledge for those making decisions.

In appointing third parties, such as the Fund's Independent Investment Adviser, the Fund will set out requirements around responsible investment as appropriate.

Climate change is also considered by the Fund's actuaries when undertaking their funding valuation.

We work with our asset manager Brunel to identify the areas of greatest risk and agree resource allocations in response to those assessments. This allocation strategy helps the Fund to mitigate and manage those risks. A key tool for this process is the annual Climate Metrics report provided by Brunel for the Fund. This provides a useful snapshot of performance and risk in relation to the Fund's Net Zero targets at both an aggregated overall Fund level and portfolio level.

Metrics and Targets

TCFD Recommended Disclosure – a. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

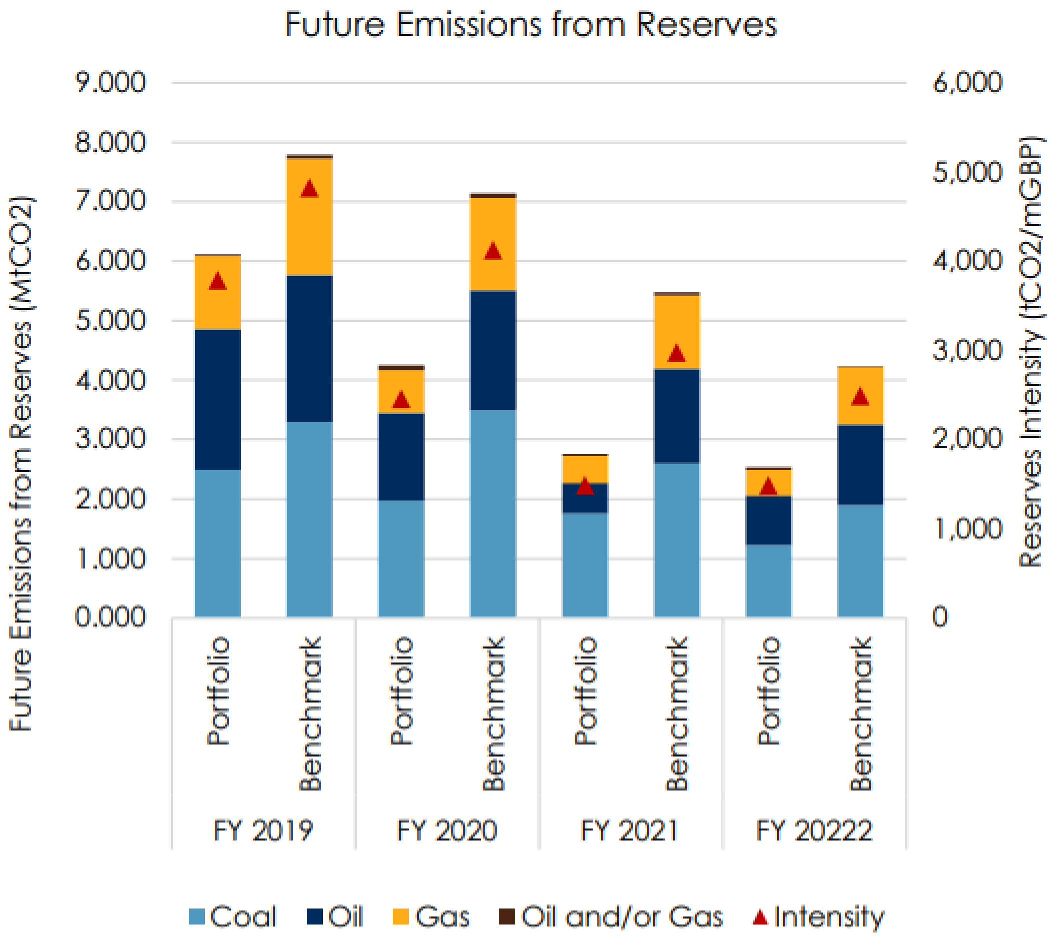
Metrics reported in this section are from the Fund's Carbon Metrics Reports. The report includes equity and fixed income assets covering around 55% of the Fund's overall investment portfolio. The Fund is working to improve reporting across other asset classes, including private markets, so that the level of coverage can be increased.

The Fund currently uses the following metrics to assess climate related risks and opportunities at both an aggregate and listed portfolio level:

- Weighted Average Carbon Intensity (WACI)
- Absolute Carbon Footprint by Scope
- Fossil Fuel Revenue Exposure
- Fossil Fuel Reserves Exposure
- Future Emissions from Reserves
- Disclosure Levels (Scope 1 Emissions)

Fossil fuel reserves exposure and future emissions from reserves are useful insights into potential downstream scope 3 emissions and can be used as an indicator of potential stranded asset risks.

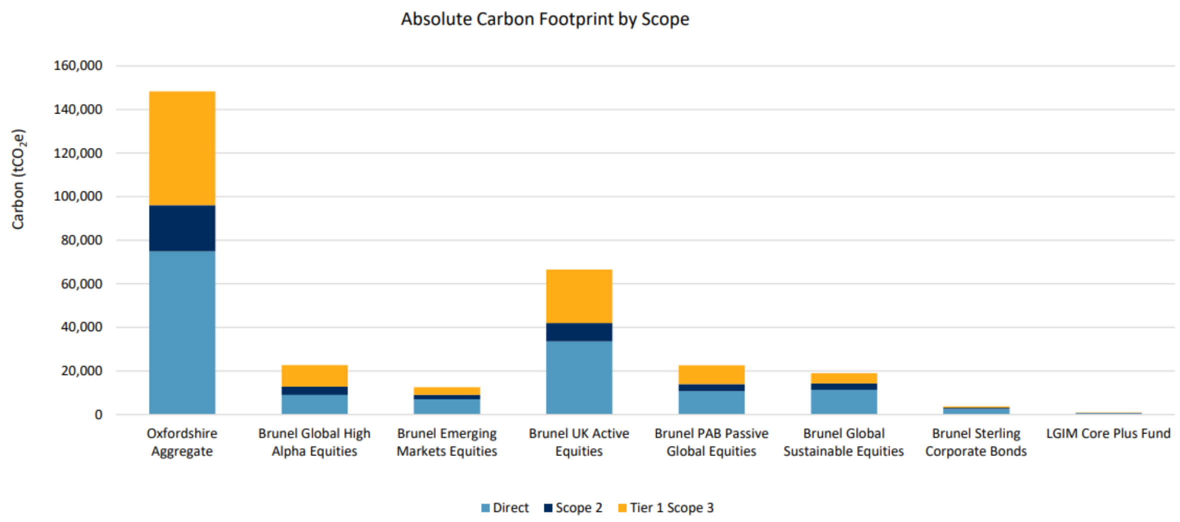
The bar chart below shows fossil fuel reserves exposure for the Fund as at 31 December 2019, 31 December 2020, 31 December 2021 and 31 December 2022



TCFD Recommended Disclosure – b. Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.

The Pension Fund's Carbon Metrics report discloses scope 1, 2 and upstream first tier scope 3 emissions for all listed equity portfolios and the Fund's Sterling Corporate Bond Portfolio.

The graph below provides a snapshot of the Absolute Carbon Footprint by Scope of the Fund at an aggregated level and also at an individual portfolio level as at 31/12/2022.

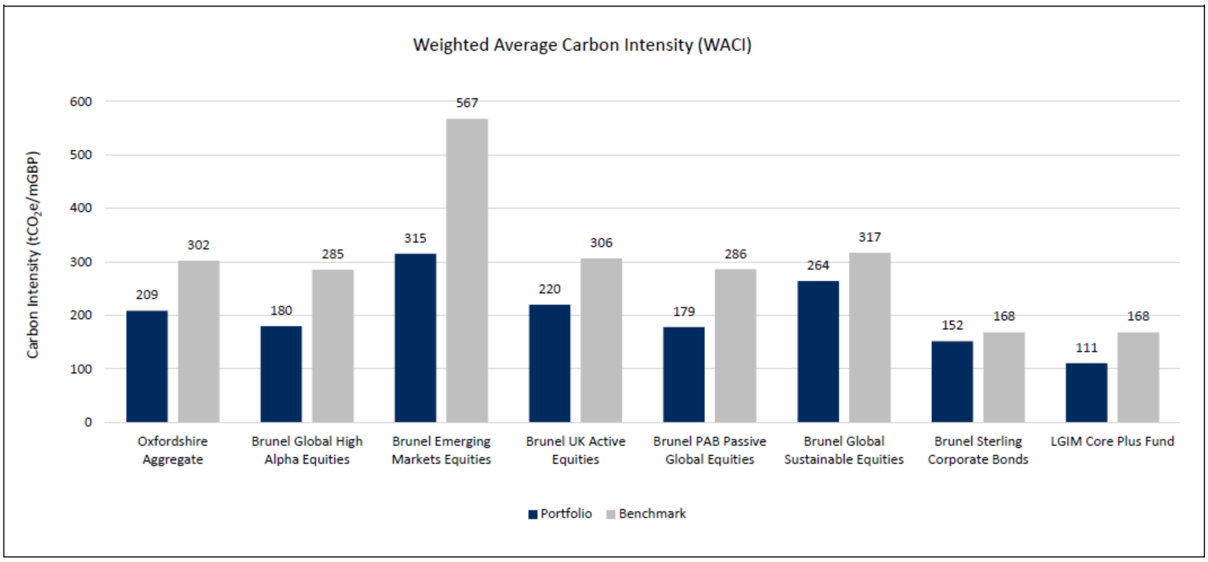


TCFD Recommended Disclosure - c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

The Fund has an annual reduction target for GHG emissions across its investment portfolios of 7.6%.

The metric that has been identified in the Climate Change policy to track progress against this target is the Weighted Average Carbon Intensity (WACI) figure. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

According to the most recent Climate Metrics report from Brunel the WACI of the Oxfordshire Aggregate Portfolio is lower than its Strategic Benchmark, with a relative efficiency of +31%. Of the underlying portfolios within the aggregate, the highest intensity was the Brunel Emerging Markets Equities Portfolio (315t CO2e/mGBP), while the lowest one was the LGIM Core Fund Plus Portfolio (111t CO2e/mGBP). As shown in the graph below all portfolios have lower levels of carbon intensity compared to their respective benchmarks.



The overall WACI figure for 2022 saw an increase of 1.5% compared to the 2021 level. This means the annualised rate of reduction from 2019 is 5.2%, 2.4% below the annual target of 7.6%.

The main portfolios driving the rise in the WACI in 2022 were the Active UK Equities and the Active Global High Alpha Equities. There was also a relatively small (1%) increase in the FTSE Passive Paris Aligned Benchmark (PAB) Global Index WACI.

The increase in the Passive PAB Global Index WACI is, on the face of it, surprising because for a fund to be a Paris Aligned Benchmark (PAB) the carbon intensity figure should decline by 7% annually. However, there is an issue here with how those intensity figures are calculated for the PAB compared to other Brunel portfolios.

For TCFD reporting it is recommended that the key portfolio carbon metric is the Weighted Average Carbon Intensity (WACI), which is based on the amount of carbon emissions associated with the company's *revenues*. This is the metric that the Fund uses as a target. The metric for measuring the carbon intensity of an index for it to be Paris Aligned is based upon the carbon emissions associated with the *value of the company* when the share price and debt are combined, this figure for a company is called enterprise value including cash (EVIC). Under this latter calculation the Passive PAB Global Index met its target of a 7.5% decline in intensity, however, under the WACI calculation using revenues there was a slight increase.

This highlights the drawbacks of only looking at a single metric and links into the Fund's target to develop additional metrics including forward looking ones. Brunel is currently in the process of engaging with the FCA to develop a set of metrics that could be applied across all portfolios to measure the extent to which they are aligned with a Net Zero Paris target of holding global temperatures rises at or below 1.5°C.

Whilst the Fund does not have a specific fossil fuel reserves exposure reduction target, it does support seeking to reduce exposure over time, in line with our commitment to be Net Zero by 2050.

One area that is important to track to understand if the Fund is making progress towards its Net Zero target is to calculate its investments into companies delivering the green products and services driving the transition to a low carbon economy. Following on from last year's pilot FTSE Russell have assessed a number of Brunel's portfolios for their exposure to green revenues vs their benchmark, see table below:

Portfolio	Green revenues	Benchmark green revenues
Active Global High Alpha Equity	9.1%	7.7%
Active Emerging Markets Equity	9.5%	9.1%
Active UK Equity	3.4%	4.2%
Passive World Developed Equity PAB Index	12.2%	7.7%
Active Global Sustainable Equity	13.1%	7.9%
Sterling Corporate Bonds	7.0%	9.4%

As the table shows all of the portfolios apart from the Active UK Equity and Sterling Corporate Bonds are ahead of their benchmarks, with the Passive World Developed PAB Index and the Active Global Sustainable Equity portfolios showing significant outperformance.

Climate Change Policy Implementation Plan Progress

The table below gives a high-level status on progress against the various actions identified as required to deliver the Climate Change policy Implementation plan

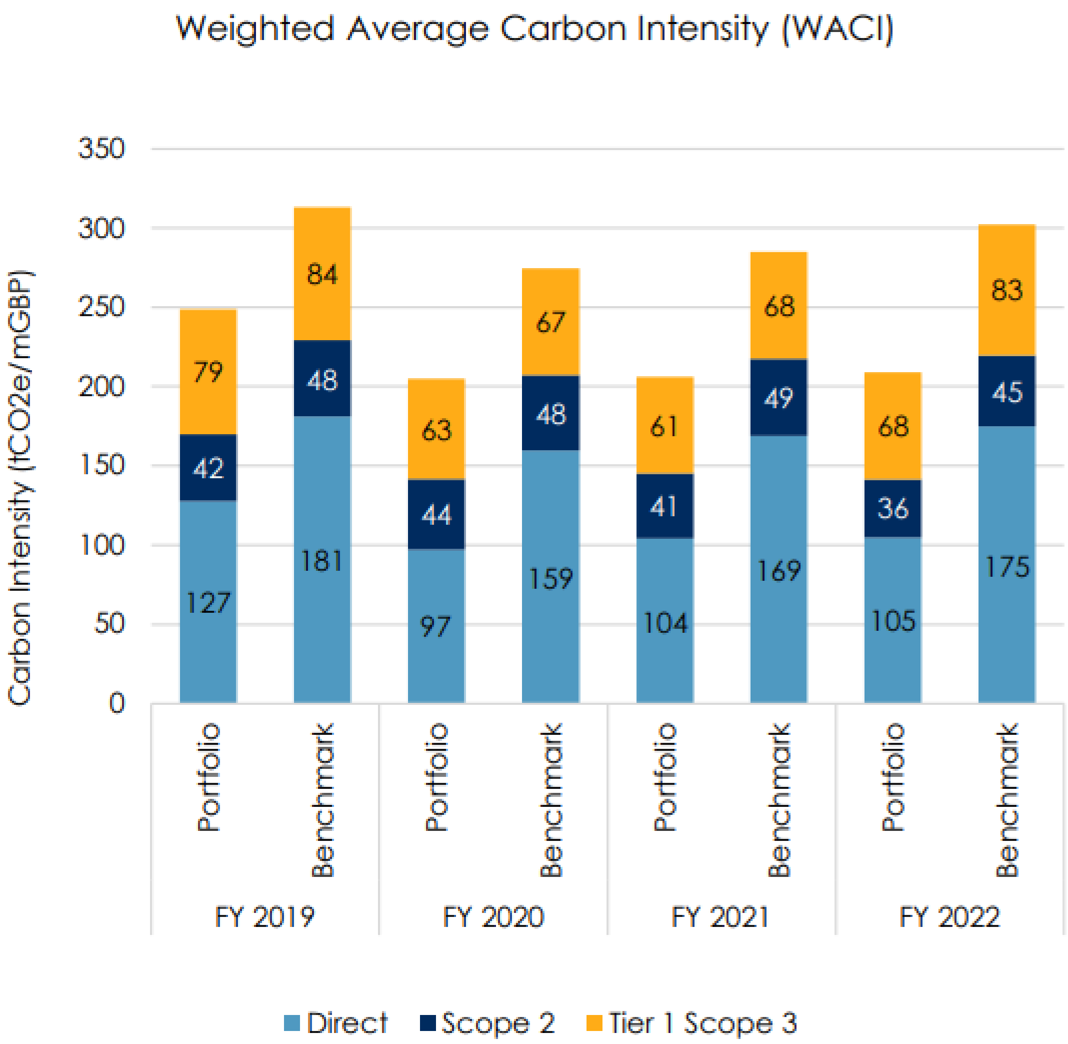
Activity	Status	Notes
Target a 7.6% annual reduction in GHG emissions across its investment portfolios using WACI as a metric	Slightly under target	Currently delivering a 5.2% annual reduction using WACI as a metric, 2.4% below the target
Work with Brunel to establish whether alternative portfolios are available that better deliver on the Policy than current options	On target	Passive funds moved to PAB index; rebalancing of equity towards Global Sustainable and Passive FTSE PAB portfolios
Consider the renewable infrastructure weighting when making future allocations to the Brunel Infrastructure portfolio	On target	Infrastructure funds Cycle 2 and 3 have higher renewables weighting. Exploring investment into a specific climate solutions portfolio
Investigate an appropriate metric for measuring the proportion of assets invested in climate mitigation and adaptation	On target	Green revenues data now available for equity, bonds and infrastructure portfolios
Work with Brunel to set appropriate targets and measures of success in relation to engagement activity undertaken on the Fund's behalf	On target	The Fund supports the use of internationally recognised standards and frameworks such as the Transition Pathway Initiative as the basis for engagement
The effectiveness of the engagement approach operated by Brunel will be formally reviewed as part of the 2022 stocktake of their Climate Change Policy and the Pension Fund will contribute to this review.	Slightly under target	The Fund contributed to the Stocktake. Additionally, the Fund is supportive of escalation activities relating to BP and Shell this AGM voting season. The Fund is in ongoing discussions with Brunel regarding the effectiveness of the engagement approach in light of current portfolio holdings in tar sands companies.
Work with Brunel to identify or develop appropriate metrics, across all investment portfolios, to monitor the successful implementation of the Policy.	On target	Climate metrics report is a useful tool for measuring implementation of the policy. Also working with Brunel to develop metrics on green revenues and widening of coverage to all asset classes.
Consider joining investor groups whose aims align with those of the Pension Fund's Climate Change Policy.	On target	Member of the IIGCC, Climate Action 100+ and the Local Authority Pension Fund Forum
Investigate options for portfolio scenario analysis based on different climate change scenarios so that this can be incorporated in the next	Under target	Working with Brunel on developing scenario analysis for all investment portfolios/asset classes

fundamental asset allocation review in 2023.		
Pension Fund to be carbon neutral on its own operations by 2030.	On target	Working with the Oxfordshire County Council Net Zero team to benchmark current operations

<u>Emissions Reduction Target</u>

The Fund's Climate Change Policy Implementation Plan set a target to reduce greenhouse gas emissions by 7.6% per annum based on the 2019 UN Environment Programme annual Emissions Gap Report. This was set to be consistent with the Fund's Policy commitment to be aligned to the 1.5°C temperature goal of the Paris Agreement with limited or no overshoot.

The chart below shows the Fund's Weighted Average Carbon Intensity (WACI) as at 31 December 2019, 31 December 2020, 31 December 2021 and 31 December 2022. These were 248, 204, 206 and 209 tonnes of CO_2 equivalent per million pounds revenue respectively representing **a reduction over the three-year period of 15.7% and an annualized rate of reduction of 5.2%.**



While the Fund does not have a target for reductions in exposure to fossil fuel reserves this reduced by 35.3% from the 2020 level and has reduced by 55% since 2019.

The Fund recognises that there are a range of different metrics to assess emissions related to investment portfolios all of which have their own merits and drawbacks. At present the Fund is reporting on WACI (as recommended by TCFD) as this can be used across all listed portfolios, irrespective of allocations and therefore can be decision-useful in assessing the relative carbon emission efficiency (per million pounds) of portfolios when attributing the impacts of strategic asset allocation decisions.

However, WACI has limitations in being used to assess progress against the Fund's emissions reduction target, principally because it is an efficiency measure and so while efficiency may improve this does not mean actual emissions are necessarily reducing. The Fund's investment in the Brunel Sustainable Equities portfolio can also have a short-term impact on WACI performance as the managers in the portfolio 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 a higher carbon intensity today than companies in most other sectors, whose own transition journey is dependent on such companies. For example, one such company in the portfolio is Waste Management Inc. which is a waste and environmental services company operating in the US.

An additional issue across all metrics is the use of scope 3 emissions where data quality and double counting factors, when using full scope 3 emissions, make its use challenging. At present the Fund's WACI data includes Scope 1, Scope 2, and first tier Scope 3 emissions (upstream emissions).

It is important that the Fund continues to work with Brunel to monitor and develop metrics such as fossil fuel reserves exposure, overall carbon emissions and green revenue exposure to be able to give a more granular and rounded assessment of progress towards its Net Zero target.

Other Implementation Plan Items

The Fund's Implementation Plan sets out several actions over the near-term that management has determined will enable it to deliver on its Climate Change Policy. Progress against each of these is summarised below.

Work with Brunel to establish whether alternative passive, or similar, equity funds are available that better deliver on the Policy than current options available to the Fund.

Brunel worked closely with leading index provider FTSE Russell to develop two indexes that met the EU criteria to be classified as a Climate Transition Benchmark or a Paris Aligned Benchmark. These indexes were made available for investment in November 2021. The Pension Fund Committee made a decision to move the Fund's full passive holdings of c.£530m to the Paris Aligned Benchmark fund putting it among the first group of investors to invest in the index. Of the two funds developed the Paris Aligned Benchmark has stricter climate criteria and effectively excludes fossil fuel companies from the index. The Fund has also been rebalancing some of its active equity funds away from portfolios with higher fossil fuel reserves exposure towards the Global Sustainable Equity and the Passive FTSE PAB Index portfolio, where exposure to reserves is lower and green revenues higher.

Consider the renewable infrastructure weighting when making future allocations to the Brunel Infrastructure portfolio.

Brunel has removed the renewable infrastructure sleeve from its cycle 3 infrastructure portfolio and as such the Pension Fund is not able to separately allocate to renewables within its infrastructure allocations. However, the infrastructure portfolio specification states that a majority of the portfolio will seek to deliver climate solutions and a just energy transition to a lower carbon global economy.

To enable the Pension Fund to set targets for investments in Climate Solutions and have control over this the Fund is seeking the development of a Climate Solutions Portfolio to enable it to make specific allocations to climate solutions. Initial meetings between Brunel and the client funds have taken place on the development of this portfolio.

***Investigate an appropriate metric for measuring the proportion of assets invested in climate mitigation and adaptation*.**

The Fund continues to work with Brunel in developing an appropriate metric or set of metrics and determining the criteria used to identify investments in climate mitigation and adaptation. This links to wider work being undertaken by various governments including the EU who have developed an EU Green Taxonomy and the UK which has established a Green Technical Advisory Group to advise the government on the establishment of a UK taxonomy that sets the criteria for an investment to be defined as environmentally sustainable.

In order for the Fund to set targets it first needs to be able to establish the current level of investments in climate solutions/green revenues. Once a baseline has been established then the percentage increase over time of investments by the Fund into companies contributing to the low carbon transition of the economy can be tracked and reported on.

FTSE Russell produced a 2022 paper on green revenues exposure of equity portfolios in a 1.5°C scenario. According to this analysis a 1.5°C Paris aligned calculation (low case) calls for:

- 12% green economy exposure of the listed equity market by 2023.
- By 2030 this should be 20%
- By 2050 this should be 25%
- Therefore exposure is heavily front-loaded in order to mitigate temperature rises above 1.5°C.

Brunel have carried out an initial review in December 2022 and calculated the Weighted Absolute Value (£) of Green Revenues of the Fund's equity and bond portfolios using the FTSE Russell green revenues methodology. On this basis it is estimated that the Fund's exposure to green revenues as at December 2022 was £138,798,772.70, as a percentage of total investment into bonds and equity this equals 8.1%. Brunel have also calculated the green revenues from the Stepstone managed private market infrastructure portfolios, which are equivalent to £40,000,000 out of a total investment into those funds of £53,000,000. If we add these two together that translates into 10.1% of total investment into bonds, equity and infrastructure private markets.

Whilst this figure is slightly below the likely required green revenues exposure, estimated to be at around 12%, it is important to note that the calculation did not include investments into other asset classes including private equity and property where the percentage may well be higher. Going forwards we will work with Brunel to develop a metric for green revenues that includes the Fund's investments into all asset classes.

The Pension Fund will work with Brunel to set appropriate targets and measures of success in relation to engagement activity undertaken on the Fund's behalf.

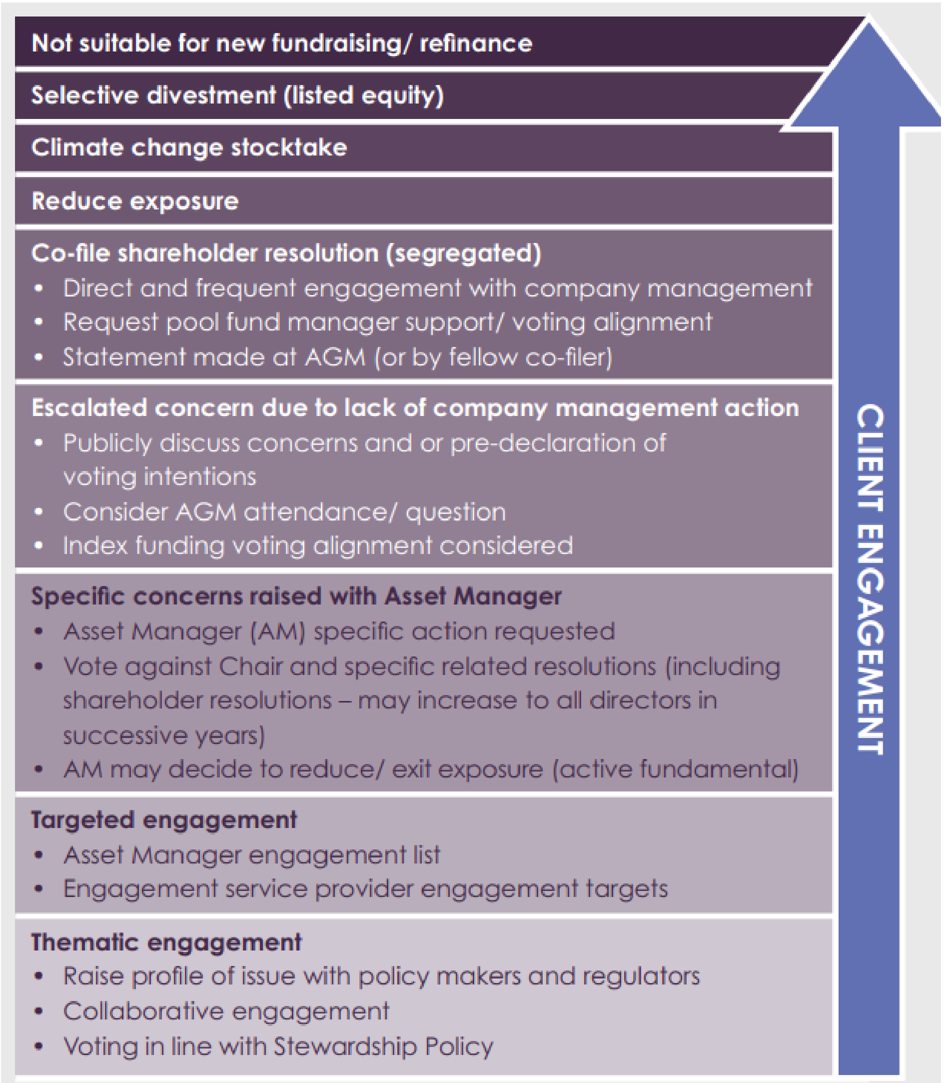
Brunel has three main strategies that it uses to persuade companies and other entities to act on climate change, namely: (a) direct engagement, including voting its shareholdings, (b) collaborative engagement, in particular through Climate Action 100+ (CA100+), and (c) engagement via its investment managers.

In relation to company engagement, Brunel expects companies in high-emitting sectors 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.

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 Transition Pathway Initiative (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

In cases where escalation is necessary Brunel has the following approach:



The effectiveness of the engagement approach operated by Brunel will be formally reviewed as part of the 2022 stocktake of their Climate Change Policy and the Pension Fund will contribute to this review.

A key component of the engagement approach is to encourage companies to set plans and objectives to align with net-zero.

Brunel provides updates on the engagements with companies every quarter and more detailed analysis on an annual basis in the Responsible Investment and Stewardship Outcomes Report.

In 2022 Brunel engaged with 899 companies on 3,606 environmental, social, governance, strategy, risk and communication issues and objectives. Of these engagements 29% were on environmental issues, with 75% of those engagements relating to climate change.

As part of the Pension Fund's input into the stocktake it has agreed an Engagement Policy. The policy focuses on companies with the highest emissions; those covered by CA100+. A series of measures are set out in the policy with target dates for achievement, failure to meet the criteria will lead to potential exclusion of a company.

The Fund is currently in discussion with Brunel and the other client funds over the effectiveness of the current engagement arrangements following concerns raised over holdings in the pure-play tar sands companies Suncor and MEG in the Global High Alpha portfolio. The Fund is seeking support for the Oxfordshire Engagement Policy agreed in June 2022 which sets a more ambitious approach than that currently adopted by the Partnership and includes timescales.

Work with Brunel to identify, or develop if not available, appropriate metrics, across all investment portfolios, to monitor the successful implementation of the Policy.

Work on metrics is ongoing and is expected to be an evolving process that incorporates developments in available data with the aim of increasing the accuracy and relevance of metrics as well as increasing the level of portfolio coverage. Brunel are now able to provide an annual set of climate metrics for the Funds equity and bond holdings. We now also have access to green revenues data for some of the private market funds too. Going forwards we will work with Brunel to extend the green revenues data across all investment classes to help better understand the positive impact of the Fund's investments into the transition towards a low carbon economy.

While metrics are available for listed equities and bonds there is currently a lack of data available for the majority of other assets particularly in a format that allows aggregation at portfolio level. There are some industry developments in this area that could be useful to the Fund, for example the Carbon Risk Real Estate Monitor that has been developed for real estate assets.

Brunel are working with their private market managers to produce climate data that can be used to measure alignment with climate goals.

This is also an area being looked at by the IIGCC as part of their Net Zero Investment Framework and the Fund will monitor the outputs from this work and its applicability to the Pension Fund's investments.

Consider the merits of joining investor groups whose aims align with those of the Pension Fund as set out in the Policy.

The Fund continues to be a member of The Institutional Investors Group on Climate Change (IIGCC), Climate Action 100+ and the Local Authority Pension Fund Forum. In February 2021 the Fund signed the IIGCC's Paris Aligned Investments Initiative: Net Zero Asset Owner Commitment, joining other global investors in committing to investing in support of the goal of global net zero emissions by 2050.

In 2022 the Pension Fund was a signatory to The Investor Agenda's 2022 Global Investor Statement to Governments on the Climate Crisis calling on governments to set targets and take policy action aligned with the goal of limiting global temperature rises to 1.5°C.

Investigate options for portfolio scenario analysis based on different climate change scenarios so that this can be incorporated in the next fundamental asset allocation review in 2023.

The draft government guidance by DLUHC on TCFD implementation proposes to place a new duty on LGPS Administering Authorities (AAs) to assess their assets, liabilities, investment strategy and funding strategy against climate risks and opportunities in at least two climate scenarios. This assessment must include at least one scenario based on a global temperature rise of 2°C or lower on pre-industrial levels. This assessment must occur at least once every valuation cycle. In interim years, AAs must consider whether any changes in the fund have been substantial enough to require scenario analysis to be repeated.

The Fund has not yet undertaken a scenario analysis exercise and acknowledges that this is a developing area. The Fund recognises the value of scenario analysis based on different climate scenarios and has committed to undertaking an exercise in its Implementation Plan, the results of which are to be incorporated into the Fund's fundamental asset allocation review process. Any scenario analysis would be intended to consider both the asset and liability implications for the Fund.

Given that the intention is for all investments to take place via Brunel's portfolios, it makes sense for the Fund's scenario planning to be based upon scenario planning carried out by Brunel. This work by Brunel is due to take place in late 2023 or early 2024. As such, it is the aim of the Fund to include scenario planning based on the modelling carried out by Brunel in the next cycle of TCFD reporting in 2024.

As well as addressing the Pension Fund's investments the Policy also sets a target for the Pension Fund to be carbon neutral on its own operations by 2030.

The Fund continues to work within Oxfordshire County Council's wider goal to achieve net zero emissions by 2030 across the whole organisation of which the Pension Fund is part. The Fund intends to report data on this and actions taken in future updates.

Case studies

Below are some examples of how climate change is being integrated into the investment process within the Brunel portfolios the Pension Fund is invested in.

Engagement - Physical Risk Engagement Project:

Brunel will be engaging a third party advisor to undertake an engagement programme linked to physical climate risk. The core engagement is with 10 companies and the Oxfordshire Fund will be taking part in an elective service to include an additional 10 companies into the project, spanning a two year period.

As part of this elective service the Fund will be able to play an active role in the design of the engagement programme, through contributing to the criteria for prioritising companies and feeding into the engagement framework that will be used to assess companies. The Fund will also be able to play an active role in the company engagement through participating in company meetings and reviewing meeting outcomes.

Case Study: Infrastructure, NTR – Reclaimed Landfill Site

NTR has acquired Ockendon solar farm following its acquisition from REG Power Management. The solar farm is located in Essex (UK), with the solar farm considered to be one of the largest to be built on a repurposed landfill site in Europe and will provide 58.8MWp for 17,000 homes, once operational.

NTR is held in our Cycle 1 Infrastructure portfolio. In line with NTR's focus on creating a circular economy to protect the environment, the former landfill site is being left undisturbed, with specialist engineering and design techniques being adopted by NTR to repurpose the land for renewable energy power generation.

Using the latest solar technology, NTR will install 540Watt bi-facial solar panels which are capable of capturing sunlight on both sides of the panel. These panels have a higher efficiency rate, resulting in increased output density and optimisation of energy yields per square metre. Mobilisation works have commenced with the project expected to be fully operational in Q3 2023.