2021 Climate Change Action Plan Report

Based on the recommendations of the TCFD Task Force on Climate-Related Financial Disclosures.

Full Report and updated disclosures made to supplement Brunel’s Annual Report and Financial Statements, for the year ended 30 September 2020.
Delivering 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 £30 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.

We believe in making long-term sustainable investments supported by robust and transparent processes.

We are here to protect the interests of our clients and their beneficiaries.

In collaboration with all our stakeholders, we are forging better futures by investing for a world worth living in.

Brunel is authorised and regulated by the Financial Conduct authority as a full-service MiFID firm. We use the name ‘Brunel’ to refer to the FCA-authorised and regulated company. Company registration number 10429110. Authorised and regulated by the Financial Conduct Authority No. 790168.
Climate change presents an immediate, systemic and material risk to the ecological, societal and financial stability of every economy and country on the planet. It has direct implications for our Clients and their beneficiaries. It is therefore a strategic investment priority for us.

Scientific evidence suggests that our climate is changing faster than at almost any point in history.

The global temperature has already risen by approximately 1°C above pre-industrial levels. The rise is causing more frequent and more extreme weather events and significantly affecting rainfall and sea levels. It is impacting agriculture and food supply, infrastructure, flooding and water supply. Those shifts are leading, in their turn, to increased migration from climate-affected regions and greater conflict over natural resources, such as water and agricultural land.

World governments have started to respond. The signatories to the 2015 Paris Agreement committed to keeping the global temperature rise this century to well below 2°C compared to pre-industrial levels, and to actually aiming for just 1.5°C. The signatories agreed to adopt and implement nationally determined contributions (NDCs) that set out the actions they would take to reduce greenhouse gas emissions. They also committed to strengthen these efforts in the years ahead. Despite some progress, we are currently heading towards a world of 4°C of warming compared to pre-industrial levels. This has potentially catastrophic implications for society and the environment.

Governments and all sectors of society (including individuals, companies, investors and public bodies), will need to do much more if the global temperature rise this century is to be kept to well below 2°C. The transition to the low carbon economy calls for significant change in the shape and structure of our economy. It requires us to eliminate most or all fossil fuel use, and to achieve a net zero carbon economy by 2050.

What is the role of investors?

Investors are exposed to the risks and opportunities presented by climate change adaptation and mitigation. They have a critical role to play if we are to successfully transition to the low carbon economy and to ensure that we adapt effectively to the physical impacts of climate change. We are a key source of the capital required for mitigation and for adaptation. We can ensure that the companies we invest in are resilient to regulatory and other changes that will result from climate change. We can support policy makers in taking action to enable the low carbon transition and effective adaptation.
Brunel and TCFD

Brunel committed to reporting to the TCFD in November 2017 and has provided a summary in each subsequent Annual Report and Financial Statements. The TCFD recommends inclusion in an organisation’s main financial filings.

Brunel’s year-end is 30 September, but our climate metrics and targets are set and reviewed each calendar year. Therefore, Brunel has committed to supplementing the summary report with this more comprehensive report in the first quarter of the year, in order to capture the most up-to-date progress on each of the metrics and targets.

Brunel is a strong advocate for global mandatory disclosure to TCFD. Brunel has supported the work of the UK government in improving climate risk disclosures, culminating in the commitment to making TCFD mandatory across the economy by 2025.

Task Force on Climate-related Financial Disclosures (TCFD)

In April 2015, the G20 commissioned the Financial Stability Board (FSB) to look into how public and private participants take account of climate-related issues. The outcome of the review was the establishment of the Taskforce on Climate-related Financial Disclosure (TCFD). Following a consultation, the TCFD issued recommendations for reporting to assist stakeholders in financial markets understand their climate-related financial risks and opportunities.

The TCFD recommendations are split into 4 sections;

- **Governance**: how is the organisation’s board and management assessing, managing and providing oversight of climate-related risks and opportunities?
- **Strategy**: how do these risks impact on the organisation’s business model?
- **Risk**: what and how have risks been identified and managed?
- **Metrics and targets**: how are the risks being monitored and have the appropriate metrics and targets been selected?
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. As such, any training needs are identified through our standard appraisal and personal objective setting processes.

Indeed, everyone at Brunel is responsible for addressing climate change risks and opportunities within their own work, since it is embedded in our governance, operations and investment approach, as well as in our outreach to other investors and the local community.

Brunel is focused on client outcomes. The governance diagram below illustrates the frequency of client interactions, all of which can include matters relating to climate change. The Client RI Subgroup, which meets monthly, provides an in-depth opportunity for input on client needs and expectations.

Brunel has a dedicated Responsible Investment team of three investment professionals who support the Brunel Investment Team and lead on engagement and stewardship activities. For further detail of our Responsible Investment Strategy, see our annual Responsible Investment and Stewardship and Outcomes Report.

Brunel Governance and Oversight

Brunel Board undertook a dedicated half-day Systemic and Climate Risk Workshop in November 2020.
Climate Change Policy

Our Climate Change Policy, drafted in collaboration with our clients, sets out an ambitious plan to address climate change across our investments and the wider investment industry.

Our Climate Change investment beliefs

We believe it is our fiduciary duty to manage climate change and associated risks and opportunities within our investment portfolios.

As investment markets are not properly pricing in climate-related risks. Climate-related risks impact all investment strategies and mandates, whether active or passive, and across both long- and short-time horizons. Our holistic approach to managing this risk is outlined in our Climate Change Policy but is summarised in the following sections.

We believe that:

• Climate change presents a systemic and material risk to the ecological, societal and financial stability of every economy and country on the planet, and therefore will impact our Clients, their beneficiaries and all portfolios.

• Investing to support the Paris goals that deliver a below 2°C temperature increase is entirely consistent with securing long-term financial returns and is aligned with the best long-term interests of our Clients.

• For society to achieve a net zero carbon future by 2050 (or before) requires systemic change in the investment industry, and equipping and empowering our Clients (and other investors) is central to this change.

Given our strengths and our position in the market, we therefore believe that the key objective of our climate policy is to systematically change the investment industry so that it is fit for purpose for a world where temperature rise needs to be kept to well below 2°C compared to pre-industrial levels.
We published our ambitious Climate Change Policy in January 2020 in collaboration with clients and after extensive industry engagement. The policy sets out a five-point plan to build a financial system which is fit for a low carbon future. The policy sets out the strategy and plan of action, detailing objectives with key performance indicators. Where appropriate, it includes targets.

Brunel's experience and expertise in managing climate change-related risks and opportunities, our scale, our influence, and the strength and support of our clients provide us with a unique position in the investment industry. If we do not have a financial system that is fit for purpose, we will not be able to respond effectively to climate change. We can take some specific actions, mitigating risk at the margin, but the impact will be limited without wider change.

Our priority to catalyse change in the financial system at scale therefore looks not only to our own efforts, but to partnership with others, and to enabling our clients to be agents of change too.

We have committed to working across five key areas (see right), which guide our work on climate change. We report on the progress of this work and associated targets in our Stewardship and Outcomes report, available on our website.

In addition to acknowledging the catastrophic impact of governments and society not acting on their awareness of climate risk, we have identified the principal sources of strategic risk that are within Brunel’s direct sphere of influence:

- Failure to manage climate risk through poor awareness and responsiveness over how climate risks will impact on markets, our operations, managers and portfolios and by extension our clients (see diagram on page 8)
- Failure to anticipate and effectively manage changes in the market in terms of regulation, disruption, best practice, innovation and demand - both top-down in terms of product governance and bottom-up in terms of the impact on individual asset managers and investments
- Failure to provide portfolios that effectively respond to climate risk in the context of client investment objectives, potentially undermining the objectives of pooling
- Failure to ensure operational resilience.
- Failure to retain clients, attract talent and positively impact industry behaviour, due to mismanagement of all the above risks.

For each of the strategic risks, the Executive Committee has identified key performance indicators which are tracked and reported regularly.
Portfolio climate-related risks

The greatest impact to Brunel from climate risks is to our investment portfolios. The performance of our portfolios is directly linked to the value of the underlying assets, which are increasingly impacted by climate-related risks and opportunities.

Managing climate-related risks and opportunities and aligning our investment management to Brunel’s climate change ambitions, are key considerations when appointing third party managers. They are embedded into the selection and review processes for every manager and the associated due diligence. Managers are formally reviewed on an annual basis. Quarterly monitoring is undertaken by Brunel’s portfolio managers, with support from the Responsible Investment team. Reports are submitted in rotation to the Brunel Investment Committee, which meets at least monthly. In addition, the Brunel Investment Risk Committee conducts a quarterly review of the carbon metrics, as well as exposure to other environmental, social and governance risks.

We ensure 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.

While we do not instruct managers to exclude certain stocks, we expect their portfolios to display low climate exposures, and for the managers to be able to justify any climate-controversial holding. If investment managers are not able to robustly and credibly explain their investment strategies and how they have integrated climate risk, we will look to replace them with investment managers that do. We also consider the risk that our investment managers’ engagement with companies is ineffective i.e. their efforts do not lead corporate strategies to realign themselves with the transition to a 2°C or below economy. Where this is indeed a problem, we will consider whether we should remove certain investment managers and/or introduce specific exclusion criteria to be applied to companies.
Engaging with fund managers on portfolio construction

In 2019, we were searching for investment managers for a Global High Alpha strategy. Essentially this involved finding a blend of asset managers allowing us to balance risk through using a mix of style biases. The selection of managers is shown in the figure below, and the managers chosen are circled.

As can be seen, the carbon footprint of most was significantly below the reference benchmark. The exception was in value; this is a particularly challenging category from a climate change perspective. Most carbon intensive sectors often trigger the features sought by value managers and they currently tend to have a higher than standard market benchmark carbon intensity.

When we analysed the prospective manager’s holdings, we found that 70% of the carbon intensity was attributable to a single holding – LafargeHolcim, one of the world’s largest cement producers. We used TPI data as part of this analysis and found that LafargeHolcim was a Level 4 performer on management quality.

While the company was not 2°C aligned, it had a strategy that would see it aligned with 2°C. We discussed this holding with the manager and were reassured that it was both aware of the climate-related risks associated with LafargeHolcim and the cement sector and was also aware of Lafarge’s strategy for managing these risks. It is also relevant to note that LafargeHolcim subsequently had some slippage in its performance and in its targets, and both we and our investment manager are engaging with them on this issue.
We have, however, been clear that, as part of our climate stocktake in 2022, we will review the responsiveness of companies to managing climate risk and will consider exclusions where a company poses a long-term financial risk.

We provide a quarterly report to clients and the general public that covers stewardship actions and carbon metrics, including emissions intensity and fossil fuel exposure, allowing the regular review of climate-related financial risks. We provide an overview of all portfolios to the Board and Brunel Oversight Board (clients and stakeholders). We also deliver detailed public carbon metrics reports for each client and each Brunel portfolio - much of these is also contained in this report.

**Portfolios: Climate-related opportunities**

There are significant opportunities for investing in companies and assets that may benefit as we transition to a low carbon future.

We work with clients to construct portfolios that meet their specific goals around investing in lower-carbon products and climate change opportunities.

All of our active portfolios are less carbon intensive than their respective benchmarks (see our Carbon Metrics Report for more detail). We have launched a specific Passive Low Carbon Equities Portfolio for clients wishing to have passive exposure to global equities but with a significantly lower exposure to carbon emissions and fossil fuel reserves. We also launched an active 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 addition to our listed portfolios, we also provide 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 our private markets team. The risks are managed to maximise effectiveness in each of the strategies but are also appropriate for the level of control we can exercise in different vehicles. The private market portfolios are also the area where Brunel has identified significant potential for investing in climate solutions.

Whilst 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 issues. Like any other real assets, they are at risk during the transition phase. Our due diligence extends to the full life cycle of these assets, including which Original Equipment Manufacturers (OEM) they use.

Renewable energy investments are a core component in our private market investments, representing in excess of 35% of cycle 1 commitments and at least 50% of cycle 2 commitments within our infrastructure portfolios.

Kern County, California: 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 through the Capital Dynamics Clean Energy Infrastructure VII-A fund.
Physical and adaptation risk and opportunity

During 2020, we have been exploring data and analytical provider options to assist in our oversight of physical and adaptation risks. Whilst the solutions were excellent, they were designed for those directly managing assets and were, as a result, quite expensive; but we are seeking to evaluate a broad range of assets. Although we do not have carbon footprinting-style data, we have nonetheless been challenging managers on physical and adaptation risks across our portfolios. The level of integration into due diligence is highest in our private market portfolios, where there are also investment opportunities. We will continue to persevere to find a solution to provide a more quantitative evaluation of risk during 2021.

Scenario Analysis

We recognise that scenario analysis is an important tool in assessing what impact climate change may have on our investment portfolios. We compare the equity portfolios against three Bank of England climate scenarios, using a free, open source PACTA tool. This stress testing is an initial step in the development of our climate scenario analysis work.

Scenario A - Temperatures are below 2°C by 2100
There is a sudden disorderly transition.

Scenario B - Temperatures are well below 2°C by 2100
Long-term orderly transition that is broadly in line with the Paris Agreement.

Scenario C – Temperatures exceed 4°C by 2100
A continuation of current trends with no transition.

For more information on the assumptions underlying each of the scenarios please see the Bank of England’s General Stress Test Methodology document.

Since May 2019, we have been on the steering committee of the IIGCC’s Paris Aligned Initiative (PAII) looking to establish the pathways, methods and approaches to creating Paris-aligned portfolios. As part of this project, we submitted subsets of portfolio data to be run through a financial climate model to establish some of the possible financial implications under different climate change scenarios. We submitted a passive benchmark portfolio, a ‘current’ portfolio and a ‘hypothetical Paris aligned’ portfolio.

This scenario analysis looked specifically at asset-side changes, including earnings impairments as a result of transition policies and demand changes. Whilst modelling outputs can be uncertain, this work helped us deepen our understanding and shape the Net Zero Investment Framework methodology. We will be actively involved in the next phase of this initiative, which will expand to other asset classes.

We are aware that data and methodologies around climate scenario analysis are expanding rapidly. As a next step to enhancing our climate scenario analysis work, we are in discussions with different service providers to consider undertaking scenario analysis of both our listed market and private market portfolios.

In addition to the work we carry out on our own portfolios, we ask our asset managers to provide any climate scenario work undertaken, as well as carbon footprint data. We use this in conjunction with our own internal analysis to assess the strategy and any given manager’s approach to climate risk.
Using climate scenarios to evaluate company level transition risk

The Transition Pathway Initiative (TPI) is discussed in more depth below, linked to some of the metrics and targets. The initiative assesses companies’ preparedness for the transition to a low carbon economy. The TPI tools allows us to evaluate how companies' carbon performance compares – both now and in the future - to the international targets and national pledges made as part of the Paris Agreement.

Companies' carbon performance is assessed using the modelling conducted by the International Energy Agency (IEA) for its biennial Energy Technology Perspectives report. This modelling is used to translate emissions targets made at the international level into sectoral benchmarks, enabling comparison with the performance of individual companies. This framework is known as the Sectoral Decarbonization Approach.

TPI uses three benchmark scenarios, which in most sectors are:

- Paris Pledges, consistent with emissions reductions pledged by countries as part of the Paris Agreement (i.e. NDCs)
- 2°C, consistent with the overall aim of the Paris Agreement, albeit at the low end of the range of ambition
- Below 2°C, consistent with a more ambitious interpretation of the Paris Agreement’s overall aim

Benchmarking is sector-specific and based on emissions intensity (e.g. for electricity utilities, it is tonnes of CO2 per MWh electricity generated).

Further details on sectoral methodologies can be found on the publications section of the TPI website.

Stewardship and our approach to public policy

Engagement with companies, fund managers and policy makers forms a key part of our approach to managing climate change risks. Engagement implementation is undertaken by our fund managers, our dedicated engagement provider EOS at Federated Hermes, and via collaborative forums such as the UN PRI, IIGCC and Climate Action 100+. We actively participate and, where appropriate, provide leadership for investor collaboration initiatives, in particular the Transition Pathway Initiative (TPI), Institutional Investors Group on Climate Change (IIGCC), the Principles for Responsible Investment (PRI).

We seek to undertake direct engagements where we feel this will add value. For example, we co-filed a shareholder resolution at Barclays on the bank’s approach to fossil fuel lending. We report on the outcomes of our engagement to clients each quarter, and annually within our Responsible Investment and Stewardship Outcomes Report.

Despite industry progress, much more is needed before we can consider there to be a comprehensive climate change policy framework in place. In the short to medium term, we believe that there are three priority areas for action:

- A meaningful price on carbon
- Mandatory climate change reporting
- Addressing regulatory barriers to progress

Our approach to policy and our policy advocacy objectives can be found in our Climate Change Policy. For further details of our approach to stewardship, see our Responsible Stewardship Policy Statement.
Engaging with fund managers on carbon intensive holdings

As part of our review of the holdings in one of our global equity portfolios, we noted that the portfolio had holdings in two companies exposed to extractive revenues.

Our analysis suggested that the companies were quite different in their strategic approaches to climate change. Over half of Company 1’s revenues were from oil products and a quarter from renewable sources (its diesel product which could be made from raw materials such as rapeseed oil, rape oil or soybean). Company 1’s aspiration was to grow the renewables part of the business to 50% of the company’s revenues in 2020. In contrast, Company 2’s business was almost exclusively based on fossil fuels and its strategic response seemed primarily focused on improving operational energy efficiency and reducing methane leakage from its operations.

Our review of the companies’ reporting confirmed these differences. Company 1 reported all of its Scope 1, 2 and 3 emissions and had set targets on reductions. It was assessed as Level 4 by TPI. While Company 2 acknowledged climate change as a risk to the business and had a climate change policy, it had yet to report on its Scope 2 greenhouse gas emissions. It was only assessed as Level 2 by TPI.

Using the insights from our analysis and from TPI, we engaged with the investment manager who concluded that Company 2 no longer fell within their investment thesis (where exposed to extractive revenues, companies should evidence of strong transition objectives) and therefore should no longer be held within the proposed portfolio.
Metrics and targets

We use a number of different complimentary ESG and carbon-specific datasets in order to monitor and report, both internally and externally, on the risks within our investment portfolios. We have undertaken a considerable amount of work in 2020 to integrate climate-related data and ESG risk metrics into our portfolio monitoring and management tool.

We monitor the carbon footprint (Scope 1, Scope 2 and first tier Scope 3) and fossil fuel revenues and reserves exposure (proxy for downstream scope 3) of each of our listed equity portfolios. This enables us to as assess the exposure to high carbon industries.

We use data, such as that provided by the Transition Pathway Initiative (TPI), to help us understand the exposure to any carbon-intensive companies and to assess their preparedness for the transition to a low carbon economy.

Scope 1 emissions account for all direct greenhouse gas emissions from the activities of an organisation. This includes activities on site such as the use of gas boilers for heating buildings, emissions from company vehicles, leaks from air-conditioning units and emissions from any onsite processes such as cement manufacturing.

Scope 2 emissions are indirect emissions from electricity purchased and used by the organisation. These emissions are created during the production of the energy.

Scope 3 emissions are all other indirect emissions with the exclusion of scope 2 (see left). These emissions occur from activities or sources that the organisation do not directly own or control. These include activities such as business travel, employee commuting, waste and water services and investments.
We have set a number of metrics and targets for our listed equity portfolios, which are outlined in our Climate Change Policy.

- **Portfolio decarbonisation of our listed equity portfolios** by no less than 7% per year from a fixed baseline of each respective portfolio benchmark emission intensity as at 31/12/2019 – in cases where the market benchmark decarbonised more rapidly, parity may be an acceptable minimum

- **Fossil fuel revenues and exposure** no greater than that of each respective benchmark

- **Climate governance using TPI**, targeting all our material holdings¹ to be at TPI level 4 or above by 2022

- **Engagement with our material holdings** to persuade them to advance at least one level (up to 4*) per year against the TPI Management quality framework

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**Carbon metric reporting overview**

As well as our internal monitoring, we empower Clients to understand the climate change risk exposure within their portfolios by providing carbon footprinting, fossil fuel exposure and revenues and the disclosure rates of portfolio constituents for all listed market portfolios vs their relevant benchmarks.

On a quarterly basis we provide Clients with a Responsible Investment and ESG dashboard for each portfolio that includes ESG scores, carbon metrics and key stewardship activities. The carbon metrics we report each quarter include:

- The Weighted Average Carbon Intensity (WACI) of the Portfolio and its benchmark for both the current and previous quarter
- Extractives revenues exposure (as a % of the portfolio) for both the Portfolio and its benchmark
- The value of holdings for companies who derive revenues from extractives for both the Portfolio and its benchmark

On an annual basis we produce a Carbon Metrics Report where we detail the following for each Brunel Portfolio against its relevant benchmark:

- The Weighted Average Carbon Intensity (WACI) of the Portfolio and its benchmark for both the current and previous quarter
- Exposure to fossil fuel in terms of the proportion of the Portfolio that derives revenues from fossil fuel extraction and energy activities.
- The proportion of the Portfolio that has fossil fuel reserves exposure
- The disclosure rates of companies within the Portfolio (both for a greenhouse gas and value of holdings basis)

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¹ As assessed in 2019 by TPI - new entrants are also monitored and targets sets to improve climate governance.
Portfolio decarbonisation

The Brunel Aggregate Portfolio is made up of the Brunel’s listed equity portfolios weighted by value of investments as at 31 December 2020. A custom strategic benchmark has been used so that the Brunel Aggregate Portfolio can be measured against a meaningful comparator. This is made up of the individual benchmarks from the Brunel portfolios and weighted accordingly, as of 31 December 2020. We give asset allocation details for both the Brunel Aggregate Portfolio and custom benchmark in the Appendix.

Weighted Average Carbon Intensity (WACI)

The WACI shows a portfolio’s exposure to carbon-intensive companies. This measure is determined by taking the carbon intensity of each company and weighting it based on its holding size within the portfolio. The WACI is one of the measures recommended by the Task Force on Climate-related Financial Disclosures (TCFD).

Because carbon-intensive companies are more likely to be exposed to potential carbon regulations and carbon pricing, this is a useful indicator of potential exposure to transition risks, such as policy intervention and changing consumer behaviour.

We outline the Weighted Average Carbon Intensity (WACI) of the Brunel Aggregate Portfolio and Brunel Portfolios below. Each of the Active Brunel Portfolios has a lower WACI than their respective benchmarks. The Brunel Passive Portfolios (Passive Smart Beta, Passive UK and Passive World Developed) track their respective benchmarks.

We recognise that climate-related risks can be managed in different ways in active and passive mandates as well as for different asset classes. We have developed a Passive Low Carbon Equities Portfolio, to provide equity returns with considerably lower exposure to carbon emissions and fossil fuel reserves relative to the MSCI World Index. We see the traditional benchmarks and indices as a block to decarbonisation across the industry and are actively seeking and encouraging the development of lower-carbon index solutions.

As of 31 December 2020, the Brunel Aggregate Portfolio had an efficiency of 22% versus the custom benchmark, compared to 15.4% on 31 December 2019.
We worked extensively on improving the carbon footprint of our Portfolios alongside our external fund managers. We have included some highlights below.

**Brunel UK Active**

- The Brunel UK Active portfolio saw a decline in carbon intensity, from 259 tCO2e/mGBP as of December 2019 to 199 tCO2e/mGBP in December 2020 – a 23.2% reduction.

- This improvement is in addition to the extensive work undertaken in 2019 which saw this portfolio’s carbon intensity fall by 28.5% from March 2019 to December 2019.

- As of December 2020, the Brunel UK Active Portfolio had a relative efficiency of 28.4% versus its benchmark, the FTSE All Share Ex-IT. This marked an improvement on December 2019, when the relative efficiency was 8.8%.

**Brunel Emerging Markets Equity**

- The Brunel Emerging Markets Equity portfolio saw a decline in carbon intensity, from 522 tCO2e/mGBP as of December 2019 to 402 tCO2e/mGBP in December 2020 – a 22.9% reduction.

- As of December 2020, the Brunel Emerging Markets Equity portfolio had a relative efficiency of 12.2% versus its benchmark, the MSCI Emerging Markets. This is an improvement on December 2019, when the relative efficiency was 8.4%.

**Brunel Active Low Volatility Global Equity**

- The Brunel Low Volatility portfolio saw a decline in carbon intensity, from 259 tCO2e/mGBP as of December 2019 to 194 tCO2e/mGBP in December 2020 – a 25.1% reduction.

- As of December 2020, the Brunel Low Volatility portfolio had a relative efficiency versus its benchmark, the MSCI ACWI of 28.9%. This is an improvement on December 2019, when the relative efficiency was 22.4%.

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**Brunel UK Active Portfolio - 45% emissions intensity reduction March 2019 to December 2020**

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**Brunel Active Low Volatility Global Equity**

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<thead>
<tr>
<th>Portfolio</th>
<th>Carbon intensity 2020 vs December 2019 Benchmark Baseline</th>
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<tbody>
<tr>
<td>Brunel Aggregate Portfolio</td>
<td>-33.1%</td>
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<tr>
<td>Brunel UK Active Portfolio</td>
<td>-29.6%</td>
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<tr>
<td>Brunel Global High Alpha Portfolio</td>
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<tr>
<td>Brunel Emerging Market Equity Portfolio</td>
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<td>Brunel Active Low Volatility Portfolio</td>
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<td>Brunel Passive Low Carbon Portfolio</td>
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<tr>
<td>Brunel Passive Smart Beta Portfolio</td>
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<tr>
<td>Brunel Passive World Developed Portfolio</td>
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<tr>
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<td>Brunel Global Smaller Companies Portfolio*</td>
<td>n/a</td>
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*Portfolios launched in 2020. We are in the process of establishing an appropriate benchmark date.
Fossil fuel-related activities

It is important to identify exposure to business activities in extractive industries in order to assess the potential risk of ‘stranded assets’. Stranded assets are assets that may suffer premature write-downs and even become obsolete due to changes in policy or consumer behaviour.

We can identify the exposure to extraction-related activities for each portfolio by analysing the revenue exposure and potential emissions from reserves for fossil fuel-related activities. These metrics highlight companies with business activities in extractive industries, as well as companies that have disclosed both proven and probable fossil fuel reserves in the portfolio. The definitions of ‘extraction-related activities’ and ‘fossil fuel reserves’ can be found in the Appendix.

The Brunel Aggregate Portfolio is less exposed to both fossil fuel revenues (1.4% vs 2.2% for its custom benchmark) and future emissions from reserves (24.8 MTCO₂ vs 46.2 MTCO₂). The future emissions from reserves within the Brunel Aggregate Portfolio has declined from 2019 levels, dropping from 34.7 MTCO₂ vs 24.8 MTCO₂ in 2020. This decline is due to:

- decarbonisation of the Brunel portfolios (as discussed above)
- asset allocation changes between portfolios due to asset allocation investment decisions made by clients
- additional Brunel sub-portfolios launched in 2020 (Brunel Sustainable Equities and Brunel Smaller Companies)
The definition of extractive-related industries and fossil fuel reserves for the purpose of this report:

**Extraction-related activities:**
- Crude petroleum and natural gas extraction
- Tar sands extraction
- Natural gas liquid extraction
- Bituminous coal underground mining
- Bituminous coal and lignite surface mining
- Drilling oil and gas wells
- Support activities for oil and gas operations

**Fossil fuel reserves:**
- Coal (metallurgical, thermal or other)
- Oil (conventional or unconventional)
- Gas (natural and shale)
- Oil and/or gas (where no further information)

**Disclosure Rates**

We report on the level of company disclosures for the Brunel Aggregate Portfolio and each Brunel portfolio. The definitions of these are below:

**Full Disclosure** - Companies reporting their own carbon data (e.g. in financial reports, CDP disclosures etc)

**Partial Disclosure** - The data disclosed by companies has been adjusted to match the reporting scope required by the research process. This may include data from previous years’ disclosures, as well as changes in business activities.

**Modelled** - In the absence of usable or up-to-date disclosures, the data has been estimated by employing Trucost models.

For companies in the Brunel Aggregate Portfolio, the rates for full disclosure of carbon data were 61% (carbon-weighted measure) and 56% (investment weighted measure). These scores indicate scope for improved reporting among investee companies, which is a core aim of our engagement strategy.

We provide detailed breakdowns of fossil fuel-related activities; future emissions from reserves; and disclosure rates for all Brunel portfolios in our Carbon Metrics Report, which is available on our website.

Each of our clients receives a Carbon Metrics Report annually, with the above information reported for the underlying portfolios they are invested in, as well as their own ‘Aggregate Portfolio’.

**Beyond climate reporting**

We have started the process of developing ‘positive contribution’ reporting for our listed equity portfolios, including against the Sustainable Development Goals (SDGs) and look forward to rolling this out in 2021.
Climate Governance

We use 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 2020, within Brunel’s active equity portfolios there were 74 companies covered by the TPI tool. Of these, 30 holdings (41% by investment value) are categorised as Level 4 or above.

From December 2019 to December 2020, 15 of the holdings not achieving at least the level 4 target, were downgraded a TPI level. The fall in the proportion and number of companies ranked as level 4 and 4+ from 2019 to 2020 is due to the following:

- A general trend across the TPI universe of falling management quality scores. Companies are struggling to maintain their performance, particularly when it comes to providing support for climate policies and disclosing trade association climate lobbying
- New entrants due to two new new portfolios.
- 11 holdings within our active equity portfolios are new to the TPI index – two of these companies are already meeting the Level 4 target

Of those companies assessed as Level 3 or below, we are:

- engaging with all that have either fallen or have not improved their TPI Level year-on-year
- considering voting against company management that have not improved at least a TPI Level over the course of a year

The average Management Quality level of all companies in the Brunel Active Portfolios is 3.2. This is ahead of the average of the TPI database which is 2.6.

The TPI Tool

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 – Integrated into operational decision-making
- Level 4 – Strategic assessment

For more information see www.transitionpathwayinitiative.org
At the lower end of Management Quality, 16% of companies in the active equity holdings by count are on Levels 0 to 2. This compares to 38% of companies across the TPI universe. The remaining 84% of companies (or 82% by equity market value) are Level 3 and 4, compared to 62% across the TPI universe.

2 For more information see TPI State of Transition Report 2021
Operational risks

Brunel has committed to be Net zero in its operational (scope 1 and 2) emissions and made considerable progress in measuring and reducing its Scope 3 emissions by 2030.

Turning to our own operations, exposure to physical climate risks such as flooding and extreme weather are mitigated through a highly agile workforce. All staff are provided with the technology to work remotely.

Our office electricity supply is sourced entirely from renewable energy - the supplier was chosen because it provides REGOs (renewable energy guarantees of origin) for all the electricity that it sells.

Our office also has facilities such as bike storage, showers and changing rooms, as well as proximity to public transport networks. We continue to look for ways to reduce the carbon footprint within our operations and are actively investigating options for carbon offsetting where appropriate.

We have this year undertaken analysis of our staff business travel. Whilst it is not always logistically possible, we encourage staff to travel by public transport as much as possible. Over the 12-month period to 30 September 2020, 66% of our business travel (by mileage) was undertaken by train just, 28% by car and 6% by air (economy class). The proportion of car journeys this year is likely to have been higher due to COVID.

We have used the mileage data for business travel to estimate our carbon footprint from these activities, using a tool published by the Greenhouse Gas Protocol (GHG Protocol). Whilst car journeys make up only 28% of business travel, they accounted for 54.5% of emissions in the 12 months to the end of September 2020. Where public transport is not an option, we encourage staff to car share where appropriate.

Whilst the largest impact to our Scope 3 emissions comes from our financed emission in our investment portfolios, we are assessing different methodologies so we can look to further our own Scope 3 footprinting (including staff commuting) in our reporting.

<table>
<thead>
<tr>
<th>Calculation Method</th>
<th>Greenhouse gas</th>
<th>Fossil fuel emissions Scope 3 (metric tonnes in CO2 equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance travelled by staff for car, rail and plane. Emissions estimated using GHG Protocol Model - source below.</td>
<td>CO₂</td>
<td>7.6812</td>
</tr>
<tr>
<td></td>
<td>CH₄</td>
<td>0.0001</td>
</tr>
<tr>
<td></td>
<td>N₂O</td>
<td>0.0005</td>
</tr>
<tr>
<td><strong>Total</strong> (metric tonnes CO₂e)</td>
<td></td>
<td><strong>7.8336</strong></td>
</tr>
</tbody>
</table>

Appendix

Below details how the Brunel Aggregate portfolio and benchmark were generated.

**Brunel Aggregate Portfolio for Carbon Reporting**

<table>
<thead>
<tr>
<th>Brunel portfolios</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunel UK Active Portfolio</td>
<td>8.8%</td>
</tr>
<tr>
<td>Brunel Global High Alpha</td>
<td>21.9%</td>
</tr>
<tr>
<td>Brunel Emerging Market Equity</td>
<td>9.3%</td>
</tr>
<tr>
<td>Brunel Active Low Volatility</td>
<td>5.0%</td>
</tr>
<tr>
<td>Brunel Passive Low Carbon</td>
<td>10.9%</td>
</tr>
<tr>
<td>Brunel Passive Smart Beta</td>
<td>6.3%</td>
</tr>
<tr>
<td>Brunel Passive UK</td>
<td>5.1%</td>
</tr>
<tr>
<td>Brunel Passive World Developed</td>
<td>19.3%</td>
</tr>
<tr>
<td>Brunel Global Sustainable Equity Portfolio</td>
<td>10.0%</td>
</tr>
<tr>
<td>Brunel Global Smaller Companies Portfolio</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

**Brunel Custom Benchmark for Carbon Reporting**

<table>
<thead>
<tr>
<th>Brunel portfolios</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTSE Allshare ex-IT</td>
<td>8.8%</td>
</tr>
<tr>
<td>MSCI World</td>
<td>32.8%</td>
</tr>
<tr>
<td>MSCI Emerging Markets</td>
<td>9.3%</td>
</tr>
<tr>
<td>MSCI ACWI</td>
<td>14.9%</td>
</tr>
<tr>
<td>Brunel Passive Smart Beta</td>
<td>6.3%</td>
</tr>
<tr>
<td>Brunel Passive UK</td>
<td>5.1%</td>
</tr>
<tr>
<td>Brunel Passive World Developed</td>
<td>19.3%</td>
</tr>
<tr>
<td>MSCI World Small Cap</td>
<td>3.5%</td>
</tr>
</tbody>
</table>
Getting in touch

If you have any questions or comments about TCFD report please email Faith Ward, at RI.Brunel@brunelpp.org.

Please visit our website to read our latest reports, news and insights and other mate-rials to keep you up to date.

For general fund manager enquiries, meeting requests and other materials (updates, newsletters, brochures and so on), please contact us on invest-ments.brunel@brunelpp.org

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Past performance is not a guide to future performance.

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