NET ZERO

INVESTMENT FRAMEWORK 1.5°C

IMPLEMENTATION GUIDE

PRODUCED BY

IIGCC
The Institutional Investors Group on Climate Change

Ceres

ASIA INVESTOR GROUP ON CLIMATE CHANGE

Investor Group on Climate Change

PARIS ALIGNED INVESTMENT INITIATIVE

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The Paris Aligned Investment Initiative is delivered by four investor networks. The four networks are supporting investors globally to implement the Net Zero Investment Framework 1.0.

IIGCC

Europe

The Institutional Investors Group on Climate Change (IIGCC) is the European membership body for investor collaboration on climate change and the voice of investors taking action for a prosperous, low-carbon future. IIGCC has more than 275 members, mainly pension funds and asset managers, across 16 countries, with over €35 trillion in assets under management.

Our mission is to mobilise capital for the low carbon transition and to ensure resilience to the impacts of a changing climate by collaborating with business, policy makers and fellow investors. IIGCC works to support and help define the public policies, investment practices and corporate behaviours that address the long-term risks and opportunities associated with climate change. **www.iigcc.org**

Ceres

North America

Ceres is a nonprofit organization working with the most influential capital market leaders to solve the world's greatest sustainability challenges. Through our powerful networks and global collaborations of investors, companies and nonprofits, we inspire action and drive equitable market-based and policy solutions throughout the economy to build a just and sustainable future. **www.ceres.org**

Asia Investment Group on Climate Change

Asia

The Asia Investor Group on Climate Change (AIGCC) is an initiative to create awareness and encourage action among Asia's asset owners and financial institutions about the risks and opportunities associated with climate change and low carbon investing. AIGCC provides capacity for investors to share best practice and to collaborate on investment activity, credit analysis, risk management, engagement and policy. With a strong international profile and significant network, AIGCC represents the Asian investor perspective in the evolving global discussions on climate change and the transition to a greener economy. AIGCC has 49 members from 11 markets representing over USD13 trillion in assets under management. **www.aigcc.net**

Investor Group on Climate Change

Australasia

The Investor Group on Climate Change (IGCC) is a collaboration of Australian and New Zealand institutional investors and advisors, managing over $2 trillion in assets under management and focusing on the impact that climate change has on the financial value of investments. IGCC aims to encourage government policies and investment practices that address the risks and opportunities of climate change. **www.igcc.org.au**

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1. Foreword

CLARENCE HOUSE

The climate crisis has been with us for too many years. It is now rapidly becoming a catastrophe that will dwarf the impact of the Coronavirus pandemic. To build a productive and sustainable future, it is critical that we accelerate and mainstream sustainability into every aspect of our economy – this lies at the heart of my Terra Carta which aims to serve as the basis of a recovery plan for Nature, People and Planet.

I am very glad to know that the global investment community is responding to the urgency of the situation we face. I welcome the net zero commitments being made by both asset owners and asset managers and these commitments signal the understanding of the climate imperative and the willingness to take action. Through IIGCC and their network partners, we can see institutional investors coming together as a true community and "coalition of the willing" who are making public commitments to support a net zero and resilient future.

Market-leading companies have demonstrated that it is entirely possible to be profitable and sustainable at the same time. In fact, businesses and investments that are ESG-aligned are increasingly out-performing those that are not. By COP26, my great hope is that we might also see global financial institutions and institutional investors go beyond commitments and outline publicly accessible roadmaps that define the steps to take their portfolios towards net zero between 2021 to 2030. After all, we know that it is not a lack of capital that is impeding our progress, but how we deploy it.

The good news is that, on every pressing issue we face, there are solutions that are not just available, but increasingly cost effective. At the same time, there are trillions of dollars in sovereign wealth funds, pension funds, insurance and asset portfolios looking for investible and sustainable projects with good long-term value and rates of return. To meet the commitments being made by investors, there will be a need not only to decarbonise portfolios, but also to increase financing for sustainable solutions in a way that can transform the economy.

This Net Zero Investment Framework both encourages and raises ambition for the investment community, and supports investors in realising their net zero goals. This is a time for urgent action and the Framework provides a practical blueprint guiding, supporting and enabling investors to make significant progress this decade and well beyond.

I need hardly say that the time is now. The global firepower of institutional investors must be harnessed and directed towards a net zero future. I very much welcome the work of IIGCC in creating a framework that shows how this can be done, in practical measures, to support investors and our global society. I greatly welcome those investors who are already implementing the Framework and would encourage all those in the global investment community to commit to net zero and use this Framework to align their future returns with the future of our planet.

Charles

HRH The Prince of Wales

2. Introduction

The Paris Aligned Investment Initiative was launched by the Institutional Investors Group on Climate Change (IIGCC) in Europe in May 2019, to explore how investors can align their portfolios with the goals of the Paris Agreement.

More than 110 IIGCC members, representing over USD 33 trillion in assets under management engaged in a series of working groups which provided key inputs to the development of a draft Net Zero Investment Framework ('the Framework'). The Framework was first published in August 2020, and IIGCC undertook a public consultation period during which over 90 written responses to the consultation were received. IIGCC also engaged with more than 780 stakeholders through events and roundtables to showcase the Framework and receive feedback. IIGCC is grateful to all those who provided valuable and thoughtful feedback to the consultation. A number of amendments and clarifications have been made to the Framework based on this feedback as outlined in IIGCC's consultation response document. This version of the Framework, therefore, represents an updated version of the initial Framework: The Net Zero Investment Framework 1.0.

Following the initial phase of work and publication of the draft Net Zero Investment Framework, four regional investor networks have come together to launch the Paris Aligned Investment Initiative as a global effort. This includes further development of the Net Zero Investment Framework as a key tool for implementation, and supporting investors globally to implement net zero commitments and align with the Paris goals.

The investor networks are working globally to deliver the Paris Aligned Investment Initiative:

- Asia Investor Group on Climate Change (AIGCC): Asia
- Ceres: North America
- Investor Group on Climate Change (IGCC): Australasia
- Institutional Investors Group on Climate Change (IIGCC): Europe

This new global Paris Aligned Investment Initiative includes the following work to expand and enhance the Framework: providing methodologies and approaches for the alignment of two additional asset classes (infrastructure and private equity); incorporating recommendations relating to alignment with the adaptation and resilience goals of the Paris Agreement; and addressing analytical and data gaps, including investment trajectories to guide target setting for climate solutions, assessment of scope 3 emissions, and use of offsetting.

The work of the PAII recognises, and will continue to take account of, evolving work and best practice in relation to methodologies and approaches, and will incorporate these in future updates of the Framework. The networks supporting the Paris Aligned Investment Initiative will publish the Net Zero Investment Framework 2.0 ahead of COP26. The PAII will continue to follow the five principles used to assess methodologies, as outlined in Box 1.

This Net Zero Investment Framework 1.0 is presented as an implementation guide. Key requirements of the Framework are denoted by check boxes (☐), with additional recommendations and guidance provided in boxes.

Learn more about the initiative here: Paris Aligned Investment Initiative

Box 1: Guiding principles for developing the Framework

The PAII follows **5 key principles** to guide its work, and to assess methodologies and test conclusions.

- **Impact**

The primary objective is achieving emissions reductions in the real economy. While different investors have varying scopes for undertaking action, the Framework should encourage investors to maximise their efforts to achieve the greatest impact possible.

- **Rigour**

Alignment should be based on sound evidence and data, and be consistent with the best available science on meeting the temperature goals of the Paris Agreement (see Box 2).

- **Practicality**

The methods and approaches should be feasible for a range of investors to implement, build on existing work, and be compatible with existing processes or requirements of investors.

- **Accessibility**

Definitions, methodologies and strategies should be clear and easily applied, using publicly available information and assessments where possible.

- **Accountability**

Definitions, methodologies and strategies should allow clients, beneficiaries and other stakeholders to assess whether investors and assets are aligned with the goals of the Paris Agreement.

The Net Zero Investment Framework 1.0 is designed to provide a basis on which a broad range of investors can make commitments to achieving net zero emissions and define strategies, measure alignment, and transition portfolios. It sets out a number of components for an effective net zero investment strategy, with recommendations on the key actions and methodologies that can be used to implement such a strategy. The aim is to provide a framework that can be used by asset owners and asset managers, considering their different mandates and starting points. In that context, investors adopting the Framework are expected to use it on an 'implement or explain' basis, in the context of their fiduciary duties, and may, therefore, take account of specific contexts and strategies where some elements of the Framework may not be applicable. This includes where approaches may not be possible in certain regions or jurisdictions, or where regulation or best practice may determine or affect the approach that can be taken. The Framework is also based on the expectation that governments and policymakers will deliver on commitments to achieve the 1.5°C temperature goal of the Paris Agreement.

The Framework is primarily written from the perspective of an asset owner, who would be expected to consider and use all Framework components or ensure their asset managers are implementing mandates accordingly. The Framework is also a tool to guide asset manager actions, including supporting the implementation of commitments made by asset managers that are part of the Net Zero Asset Managers initiative. Asset managers should refer to Section 10 for specific recommendations on their expected application of the Framework components.

As part of the Paris Aligned Investment Initiative, the four investor networks are inviting investors to make a net zero commitment as set out in this Framework, and to use the Framework as a basis to implement their net zero strategies. Investors who want to make this commitment are also invited to join one of the partner networks – AIGCC, Ceres, IGCC, IIGCC – through which they can access further support and guidance in taking forward their actions towards Paris-alignment.

3. The Net Zero Investment Framework 1.0

The Net Zero Investment Framework 1.0 ('the Framework') proposes key components of a net zero investment strategy. Such a strategy should focus on achieving two alignment objectives:

- Decarbonise investment portfolios in a way that is consistent with achieving global net zero greenhouse gas (GHG) emissions by 2050.
- Increase investment in the range of 'climate solutions' needed to meet that goal.

The Framework recognises that investors have a range of levers at their disposal to drive decarbonisation and increase investment in climate solutions, and these should be used to ensure progress in the real economy as well as reaching targets for the portfolio itself. It provides recommended methodologies and actions which asset owners and asset managers should use to assess and undertake alignment of their portfolios towards net zero, to maximise their contribution to the decarbonisation of the real economy.

The Framework puts forward metrics to assess investments and measure alignment, and requires investors to set clear, science-based targets at the portfolio and the asset class level. It also sets out implementation actions in order to effectively achieve portfolio alignment, meet targets and enable a broader transition towards net zero, through a combination of portfolio construction, engagement, and policy advocacy. The Framework covers four asset classes, and PAII expects only these asset classes to be addressed by investors undertaking net zero commitments and net zero investment strategies. References to the 'portfolio' therefore refer only to the scope of assets covered by this Framework, with the expectation that further asset classes will be incorporated and used by investors over time.

The following diagram outlines the main components and actions of the Net Zero Investment Framework 1.0 and signposts to the corresponding sections of this document which provide more detail on the recommended actions.

Sets direction and portfolio structure for alignment

PORTFOLIO / FUND LEVEL

4 Governance and Strategy

- ☐ Commit to the goal of achieving net zero portfolio emissions by 2050, or sooner, and adopt an investment strategy consistent with the achievement of global net zero emissions by this date
- ☐ Define beliefs, set investment strategy and mandates/performance objectives for portfolio managers, asset managers, and other relevant personnel
- ☐ Undertake climate financial risk assessment in line with TCFD recommendations
- ☐ Publish a clear action plan, and disclose information on governance, strategy, metrics and targets, and management in relation to achieving alignment to net zero

5 Targets and Objectives

- ☐ Set medium term emissions reduction and climate solutions reference targets to inform SAA and monitor impact of strategy

6 Strategic Asset Allocation

- ☐ Update capital market assumptions based on scenario analysis
- ☐ Optimisation with emissions and climate solutions metrics
- ☐ Set asset class mix with climate variants
- ☐ Review constraints to increasing alignment

Shifts alignment of assets to meet portfolio goals

ASSET CLASS LEVEL

7 Asset Class Alignment

Assess assets and set targets:

- ☐ Assess assets based on current and forward looking alignment criteria, and investment in climate solutions
- ☐ Set goals for increasing % AUM invested in aligned assets
- ☐ Implement an engagement goal to ensure at least 70% of financed emissions in material sectors are either net zero, aligned to a net zero pathway, or the subject of direct or collective engagement and stewardship actions

Implement:

- ☐ Portfolio construction: Screening, positive and negative weighting, tilted benchmarks to allocate capital to support alignment and invest in climate solutions
- ☐ Engagement: Criteria based escalating engagement and voting strategy for non-aligned assets; tenant and issuer engagement
- ☐ Selective divestment: Based on climate-related financial risk; engagement escalation; non-permissible activity thresholds
- ☐ Investment/management actions for directly owned assets (e.g. real estate)

Influences enabling environment to facilitate alignment

EXTERNAL

8 Policy Advocacy

- ☐ Net zero aligned policy and regulation
- ☐ Disclosure; shareholder rights
- ☐ Collective and direct advocacy delivered through meetings, letters, responding to consultations, and media activity, as well as ensuring trade association advocacy is consistent with net zero goals

8 Market Engagement

- ☐ Asset manager or client
- ☐ Market actors including credit rating agencies, auditors, stock exchanges, proxy advisers, investment consultants, and data and service providers

While the Framework does not seek to create its own reporting standard, investors using the Framework are encouraged to disclose their targets, and report annually on progress towards these targets and actions to implement net zero. A summary of recommended disclosures is provided in Section 9, which can be reported in the structure of the Task Force on Climate-related Financial Disclosures (TCFD) reporting standard.

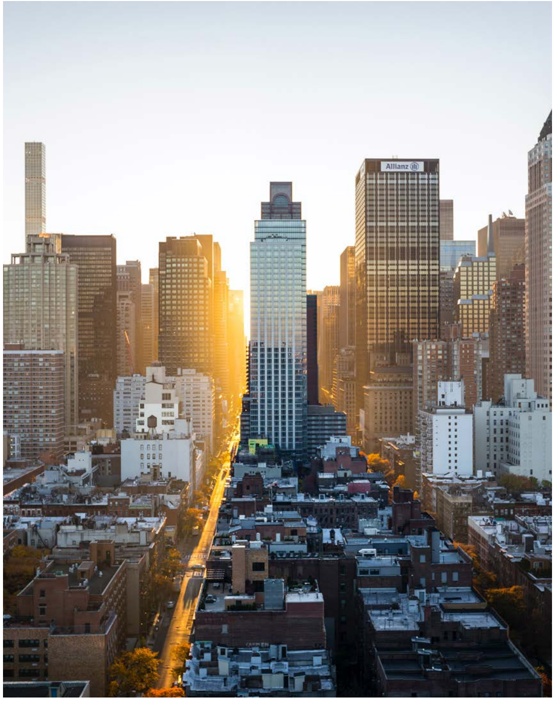
4. Governance and Strategy

Appropriate governance and a portfolio-wide strategy provides the basis for portfolio alignment and broader actions by an investor to achieve the net zero goal. The following components should be implemented to set the appropriate strategic direction, and provide accountability for implementation of an effective strategy over time:

- ☐ The board or investment committee commits to the goal of achieving net zero portfolio emissions by 2050, or sooner[1]. The PAII recommends making public commitments as set out by the Net Zero Asset Managers initiative for asset managers and the Paris Aligned Investment Initiative Net Zero Asset Owner Commitment for asset owners. See Appendix C and Appendix D.
- ☐ The board or investment committee agrees principles and publishes beliefs in relation to Paris alignment, and adopts an investment strategy consistent with the achievement of global net zero emissions by 2050 or sooner.
- ☐ The approach and investment strategy should address the five elements of the Net Zero Investment Framework:
  - Governance and strategy
  - Targets and objectives
  - Strategic asset allocation (or equivalent process)
  - Asset class level alignment, for sovereign bonds, listed equity, corporate fixed income and real estate, including portfolio construction, engagement and management strategies, and selective divestment
  - Policy advocacy and market engagement.

The investment strategy should define how the investor considers these targets and actions to represent the maximum possible effort to achieve real economy emissions reductions and increase allocations to climate solutions, subject to fiduciary and regulatory constraints.

- ☐ Undertake risk assessment and management including scenario analysis, in line with the recommendations of the TCFD.
- ☐ The board or investment committee updates mandates and performance objectives for asset managers, portfolio managers and other relevant personnel as relevant to ensure assets are managed to reflect the net zero investment strategy, reviewing the implementation of these mandates and performance over time.
- ☐ The board or investment committee monitors and reports on the implementation of the net zero investment strategy and performance against objectives and targets set.



1. The main focus of investor net zero commitments relates to addressing GHG emissions associated with investments in the portfolio, which is also the focus of this Framework. However, as reflected in the recommended commitment texts, investors should also set a target and take action to reduce their operational emissions in line with the goal of achieving global net zero emissions by 2050 or sooner.

5. Targets and Objectives

Objectives and targets set the direction and ambition of a net zero investment strategy and act as a means to monitor the effectiveness of this strategy. Targets should be set in line with science-based pathways that are consistent with achieving net zero global emissions by 2050, or sooner. The main driver for achieving portfolio emissions reduction targets should be the increasing alignment of assets within the portfolio with net zero pathways.

At the portfolio level, set the following reference targets, and review and update at least every 5 years:

- [ ] A <10-year[2] CO_2e emissions reduction target, covering listed equity and corporate fixed income, and real estate[3]. At portfolio level, this should include scope 1 and 2 emissions. This target may be expressed in absolute or intensity terms (CO_2e/$mn invested). However, when doing so investors should provide the following to the extent possible:
    - evidence of how the target has been determined and a) reflects net zero pathways that will meet absolute emissions reductions required over time, and b) is adjusted to take account of factors that are not related to real economy emissions reductions[4] as relevant.
    - when monitoring and reporting progress annually, measure a) absolute emissions reductions achieved in aggregate at the asset level, and b) progress towards an absolute or intensity target at the portfolio level.
- [ ] A <10-year goal for allocation to climate solutions representing a percentage of revenues or capex from AUM (based on EU taxonomy mitigation criteria[5]), increasing over time, in line with investment trajectories based on a net zero pathway.

Emissions reduction targets and monitoring at the portfolio level should include at least scope 1 and 2 emissions initially, and phase in scope 3 emissions over time[6], although these should be set and reported on separately given measurement and aggregation challenges.

It is expected that targets will be determined by identifying the relevant sector and regional pathways towards net zero emissions by 2050 or sooner, as well as the various current exposures and starting points of individual investors. See Box 2 on pathways.

At the asset class level, set:

- [ ] A 5-year portfolio coverage goal for increasing the percentage of AUM invested in assets in material sectors[7] that are i) achieving net zero, or, meeting the criteria to be considered ii) 'aligned' or iii) 'aligning' to net zero (see asset class sections 7.1-7.3). This target should increase towards the goal of 100% of assets to be i) net zero or ii) aligned to net zero, by 2040.[8]
- [ ] An engagement goal which ensures that at least 70% of financed emissions in material sectors are either assessed as net zero, aligned with a net zero pathway, or the subject of direct or collective engagement and stewardship actions. This threshold should increase to at least 90% by 2030 at the latest. Investors should disclose the proportion that is considered net zero or aligned, disaggregated from the total.

To set the asset level targets, investors will need to first undertake the alignment assessment set out in sections 7.1-7.3.

The Framework is focused on supporting investors to achieve net zero in relation to an investor's portfolio (or 'financed' emissions). However, the PAII also encourages investors to address their operational emissions, consistent with efforts to achieve global net zero emissions by 2050 or sooner. Therefore, investors should:

- [ ] Set a target and reduce operational (scope 1 and scope 2) emissions in line with achieving global net zero emissions by 2050, or sooner.

2. This timeframe is currently consistent with the UNFCCC Race to Zero criteria. However, investors are encouraged to set 5 year targets if possible.
3. The portfolio level target setting methodology of the UN-Convened Net-Zero Asset Owner Alliance Target Setting Protocol is consistent with this approach and can be used to inform investors in setting these targets.
4. Non-relevant variables such as exchange rate, inflation and interest rate.
5. Both climate change mitigation and climate change adaptation categories of the EU taxonomy are relevant here. IIGCC is developing more comprehensive guidance for the inclusion of adaptation and resilience into the Net Zero Investment Framework as part of Phase II of the Paris Aligned Investment Initiative.
6. In line with the emerging European timetable for the Sustainable Finance Disclosure Regulation.
7. Material sectors is defined as those in NACE code categories A-H and J-L
8. This target is comparable to the Science Based Targets initiative for financial institutions (SBTi FI) portfolio coverage metric, and in this regard the target should involve a linear increase year on year to the extent possible. The 2040 date to reach 100% recognises that, in order to be consistent with net zero by 2050, companies and assets will have to have set targets and made plans to achieve the transition well in advance of the 2050 date.

Box 2: Pathways

Pathways is the term used to describe the emissions, technologies and investment trajectories that will be needed to deliver net zero. Pathway information will be used by investors to determine their own portfolio level targets regarding emissions reductions and investments, to assess the alignment of underlying assets with a net zero pathway, and to ensure methodology providers who offer these services are using an appropriate basis for their analysis. They are therefore the keystone of a rigorous investment strategy towards net zero.

The PAII considered that economic, emissions, and technology pathways that result in a high probability of achieving the 1.5°C goal will be considered to be 'Paris aligned'. Achieving this is only likely in the context of reaching global net zero CO_2 emissions by 2050, with corresponding reductions in other GHGs, such as methane. Optimally, therefore, Paris aligned investors should use pathways that are consistent with global net zero emissions by 2050 to inform alignment of their portfolios and underlying assets.

As part of the PAII, a range of global models and scenarios were assessed to determine available pathways to guide alignment. A key finding of our work is that very few available and credible pathways achieve net zero emissions by 2050. While available pathways are sufficient to suggest general trajectories for a decline in portfolio emissions, the most significant gap is robust pathways for net zero emissions and investment trajectories broken down by sector and region.

The PAII emphasises the need for the development of these granular pathways to provide decision-useful information for investors and ensure that portfolio alignment and the assessment of the alignment of assets is credible and science-based. At a minimum, pathways used by investors, companies and data providers should:

- Be associated with limiting warming to 1.5°C above pre-industrial levels with at least 50% probability.
- Reach global net zero emissions by 2050, or sooner.
- Provide differentiated pathway information for regions and sectors which may require net zero emissions earlier or later, consistent with the global goal.
- Have a global peak emissions year of the current year or later.
- Ideally be (or linked to) a multi-sector model, taking account of all emissions sources.
- Rely on a limited volume of Negative Emissions Technologies (NETs) to 2050.

Investors should be transparent on the pathways and scenarios used as the basis for target setting or assessing asset alignment, main assumptions and limitations, and the rationale where models not consistent with the above parameters are being used. The networks also welcome the announcement by the International Energy Agency (IEA) that it will produce a 2050 net zero scenario in May 2021, and expects this to become broadly used as the basis for methodologies for assessing net zero alignment.

6. Strategic Asset Allocation

Most investors have a top-level process for allocating assets across different investment opportunities in order to achieve long-term objectives. This is often known as strategic asset allocation (SAA). SAA and other similar processes are a key tool for the achievement and fiduciary governance of Paris alignment by asset owners. SAA and similar processes can optimise the way assets are allocated for achieving Paris alignment by incorporating alignment objectives within the process. Investors should aim to do the maximum possible to reduce emissions and increase allocations to climate solutions, subject to relevant constraints.

Investors should select from the following tools to improve alignment through SAA or similar processes, as relevant.

- ☐ Use scenario analysis to ensure capital market assumptions are informed by a realistic assessment of climate risks and opportunities, or to stress test portfolios. As a consequence, investors should also more systematically incorporate this analysis in risk/return expectations, including at the stock-specific level. This may involve updating terminal values, adjusting discount rates, altering revenue assumptions etc.
- ☐ Supplement standard financial objectives with the following climate change objectives:
  - CO_2e/\$m invested (at least scope 1 and 2).
  - Climate solutions allocation as % of portfolio (using EU Taxonomy standards).
  - Forward-looking metrics that capture the transition potential of an asset may also be included, such as:
    - Exposure to fossil fuel reserves
    - Percentage of portfolio with net zero targets
    - Aggregate management indicators score
    - Level of capex relating to EU Taxonomy activities.
- ☐ Set targets for these metrics according to the targets set for the portfolio and in line with a trajectory consistent with net zero emissions by 2050, taking into account specific circumstances of the investor.
- ☐ Consider less familiar asset classes when constructing portfolios, such as renewable energy infrastructure.
- ☐ Specify variants of asset classes that use more systematic approaches to reduce carbon intensity and increase exposure to climate solutions. Examples of recommended variants include:
  - Climate-tilted indices
  - Custom benchmarks
  - Climate-focused variants
- ☐ Optimisation: implement portfolio construction to include alignment objectives alongside standard indicators such as expected returns, expected volatility and other relevant risk measures used in formulating SAA views. Such additional alignment objectives are:
  - carbon intensity
  - percentage allocated to climate solutions (EU Taxonomy)

Judgement is necessary to ensure that the optimal portfolio is not overexposed to specific risk factors. It will be important to consider whether a proposed optimal portfolio is well-diversified across regions, technologies and sectors, and not over-exposed to the risk of policy reversals.

- ☐ Review constraints to achieving alignment to understand if they are strictly necessary.
- ☐ Set investment mandates and benchmarks to ensure that climate-related objectives are specified in sufficient detail and performance objectives clearly defined.
- ☐ Monitor achievement of alignment objectives including portfolio carbon intensity and allocation to climate solutions.

7. Asset Class Alignment

The key driver for achieving net zero targets and securing emissions reductions in the real economy is the increasing alignment of assets to net zero pathways within asset class portfolios. The sections below outline the actions required to assess alignment and transition a portfolio towards net zero and deliver impact over time.

The Framework recommends following a consistent process across the four asset classes:

- ☐ Set the scope to confirm which assets should be considered within scope for alignment action.
- ☐ Assess the current and forward-looking alignment of existing and new assets using the criteria and methodologies specified below.
- ☐ Set alignment targets and implement a strategy to increase alignment of assets to net zero and increase allocation to climate solutions over time.

Overall, the PAII recommends that an investment strategy should prioritise engagement and stewardship and direct management (where relevant), particularly for existing assets, as the primary mechanism to drive alignment. Portfolio construction can also be a relevant tool to weight portfolios towards assets aligned or transitioning towards net zero as an incentive for these companies to align. Selective divestment is recommended in specific circumstances as part of the toolbox for aligning a portfolio.

Asset class targets and measurement

Asset Class	**Sovereign Bonds**	**Listed Equity/Corporate Fixed Income**	**Real Estate**
Targets/ objectives	▶ Increase average climate performance / AUM (maximum extent possible), exceeding the average benchmark score ▶ Increase allocation to green or SDG climate bonds, if possible	▶ Set portfolio coverage target for % of AUM in net zero, aligned, or aligning assets ▶ Set target for increase % climate solutions revenues/AUM ▶ Set engagement goal for coverage of assets aligned or under active engagement at >70% of financed emissions from material sectors	
Asset alignment and climate solutions assessment criteria	▶ Past and future expected territorial production emissions performance /capita or /GDP against net zero pathway ▶ Past and future performance on key sectors (energy use, and exposure of the economy to fossil fuels) ▶ Other national and international policy positions + allocation to verified green or SDG climate bonds	▶ A long term 2050 goal consistent with global net zero; ▶ Short & medium term emissions reduction targets; ▶ Current emissions intensity performance (scope 1, 2, and material scope 3) ▶ Disclosure of scope 1, 2 and material scope 3 emissions ▶ A quantified plan to deliver targets; ▶ Capital allocation alignment + Revenues from EU mitigation taxonomy activities	▶ Current alignment of building carbon emissions and energy use in line with regional/building type net zero pathway ▶ Future expected alignment based on plan for retrofit, demand management and renewable energy use
Recommended Methodologies	Germanwatch Climate Change Performance Index	Climate Action 100 benchmark; Transition Pathways Initiative; Science Based Targets Initiative	Carbon Risk Real Estate Monitor (CRREM)

7.1. Sovereign Bonds

Assessment of assets	Implementation
☐ Include all sovereign issuance in scope, except domestic issuance for liability matching ☐ Assess and score assets against performance criteria ☐ Prioritisation for engagement based on level of current performance, emissions and investor exposure	**A. Portfolio construction** ☐ Increase weighting, or use tilted benchmarks, towards higher climate performing issuance to the maximum extent possible ☐ Increase allocation to green or SDG climate bonds, including municipal green bonds **B. Engagement:** ☐ Active direct engagement with highest impact sovereigns or largest exposures that do not score highly across the scoring criteria. ☐ Participate in collective engagement both directly with governments or indirectly through networks such as IIGCC, AIGCC, Ceres, IGCC, the Investor Agenda etc. ☐ Engage with issuers, investment banks and development agencies to increase issuance of Paris-aligned verified green and SDG climate bonds **C. Selective divestment:** ☐ Consider exclusion of continued poor performers from portfolios
Alignment Metrics (M) and Targets (T)	
M. Current and forward looking alignment criteria ▶ Past and future expected emissions performance / capita or /GDP ▶ Past and future performance on key sectors (energy use, and exposure of the economy to fossil fuels) ▶ Other national and international policy positions **T.** Increase average climate performance / AUM to the maximum extent possible, at a minimum exceeding the weighted average benchmark score for climate performance **T.** Increase allocation to verified green or SDG climate bonds, if possible	

Set the scope:

☐ Include all issuers that are national governments. Investors may exclude domestic issuance held for liability matching purposes.

☐ Regional and municipal authorities that issue bonds may be included on a best effort basis as assessment methodologies are not widely available.

☐ Where the issuer is a publicly (majority) owned company, investors should follow the Framework for corporate fixed income.

Assess the alignment of assets:

☐ Past and future expected territorial production emissions performance per capita, or per GDP, against a net zero pathway. The most relevant GHG performance indicators are:

- Past trend of GHG emissions
- Current level of GHG emissions compared to a 1.5°C pathway
- GHG emissions reduction targets.

☐ Past and future expected performance in key sectors/indicators (energy use, renewables, fossil fuel exports). The most relevant policy and sectoral decarbonisation indicators are:

- Past trend of total primary energy supply (TPES)
- Current level of TPES compared to a 1.5°C pathway
- TPES target
- Current share of renewable energy (RE) compared to a 1.5°C pathway
- Renewable Energy Targets
- Economic dependency on fossil fuels.

- ☐ Other national and international policy positions. Other policy indicators are:
    - National policy strength towards net zero global emissions (e.g. low carbon transport; fossil fuel subsidy phase out; carbon pricing; decarbonisation of state owned enterprises).
    - International policy positions.

To assess GHG performance, methodologies should account for all emissions associated with the territory on a production basis; normalise emissions measurements by GDP or per capita, and account for the differentiated pathways towards net zero that can be expected from countries at different levels of economic development.

Methodologies used to assess the alignment of assets should include the above features. The recommended methodology for the assessment of this asset class is:

- Germanwatch Climate Change Performance Index[9].

The PAII notes that no equivalently comprehensive or directly applicable performance assessment exists for municipalities, and availability of data to conduct such an assessment is very limited. Various sources of information that include relevant indicators have been identified during the assessment of the working group, such as, 100 resilient cities[10] and CDP city ranking[11]. In the short term, investors who wish to apply a scoring methodology to municipalities may be able to use elements of this information and rankings to identify and increase allocation to 'good performers'. However, the PAII encourages data providers and issuers to provide information relating to the following metrics in order to facilitate a scoring of municipal issuance. Relevant indicators for municipalities may include:

- Past trend in GHG emissions, and GHG emissions reduction targets.
- Past trend of total primary energy use, and energy use targets.
- Proportion of renewables in total energy use, and renewables targets.
- Policy frameworks and targets, in particular transport, electrification and emissions; waste-related emissions; and buildings.

Set targets for alignment:

- ☐ Increase average climate performance/ AUM (to the maximum extent possible), exceeding the average benchmark score.
- ☐ Increase allocation to verified green or SDG climate bonds, if possible.

Actions to align portfolios and achieve targets:

- ☐ Tilt portfolios towards higher performing issuers based on the climate performance indicators set out above, to the maximum extent possible, exceeding the average benchmark score.
- ☐ Provide transparency on the climate performance of the sovereign portfolio relative to the benchmark, and how the maximum available reallocation towards higher climate performance has been assessed.
- ☐ Maintain an appropriate proportion of exposure between developed market and emerging market.
- ☐ Increase allocation to verified green (mitigation) or SDG climate-linked bonds, if possible.

Engage with assets, policymakers and other stakeholders:

- ☐ Engage in active, direct engagement with sovereigns to which you have the largest exposure or that have the highest impact on global emissions and that do not score highly across the scoring criteria.
- ☐ Participate in collective engagement both directly with governments, or indirectly through the investor networks, the Investor Agenda, etc (see section 8: Policy Advocacy and Market Engagement).
- ☐ Engage with index providers and data/service providers to request data and services based on the scoring system of this Framework.
- ☐ Engage with issuers, investment banks and development agencies to actively seek to increase issuance of Paris aligned green and SDG climate bonds.

9. The CCPI includes all above metrics except dependency on fossil fuels. Data to include this additional metric in assessment of relative performance is available from public sources such as the BP Statistical Review of World Energy.
10. https://www.100resilientcities.org/
11. https://www.cdp.net/en/cities/cities-scores/
12. These sectors include: Agriculture Forestry and Fishing; Mining and Quarrying; Manufacturing; Electricity, Gas, Steam and Air Conditioning Supply; Water supply; sewerage; waste management and remediation activities; Construction; Wholesale and retail trade; repair of motor vehicles and motorcycles; Transporting and Storage; Information and Communication; Financial and insurance activities; Real Estate. These codes are translated to BICS and GICS codes more commonly used by investors in: EU TEG (2019) Report on Benchmarks: Handbook of Climate Transition Benchmarks, Paris-Aligned Benchmark and Benchmarks' ESG Disclosures, December 20th 2019.
13. The PAII notes that for financial institutions such as banks, the alignment criteria will not be applicable in the same way, and the approach to alignment may be more similar to implementing this investment framework. An IIGCC working group is developing investor expectations for the alignment of banks.

7.2. Listed Equity and Corporate Fixed Income

Assessment of assets

- ☐ Identify assets in material sectors for assessment and alignment action
- ☐ Assess assets against criteria to assess: i) achieving net zero, ii) aligned, iii) aligning, iv) not aligned/transitioning
- ☐ Assess assets' revenues from climate solutions (EU taxonomy revenues or capex)
- ☐ Prioritisation for engagement based on emissions intensity/exposure

Alignment Metrics (M) and Targets (T)

M. Current and forward looking alignment criteria:

- A long term 2050 goal consistent with global net zero;
- Short & medium term emissions reduction targets;
- Current emissions intensity performance (scope 1, 2, and material scope 3);
- Disclosure of scope 1, 2 and material scope 3 emissions;
- A quantified plan to deliver targets;
- Capital allocation alignment;

T. Increase % AUM in net zero or aligning assets – 5 year goal

T. Set target for increasing % climate solutions revenues/AUM

T. Set goal for coverage of assets aligned or under active engagement to 70% of financed emissions from material sectors (combined with real assets)

Implementation

A. Portfolio construction:

- ☐ Active. Screening and/or weighting new investments based on alignment criteria and climate solutions revenues
- ☐ Invest in specialist products/funds (alignment/climate solutions focussed)
- ☐ Passive. Apply benchmark with positive weightings for alignment criteria and climate solutions revenue metric

B. Engagement:

- ☐ Set engagement strategy with clear milestones and escalation
- ☐ Undertake engagement and voting to improve company performance against metrics in line with strategy

C. Selective divestment

- ☐ Selective divestment based on a) climate financial risk or b) escalation following engagement
- ☐ Exclusions based on inconsistency of company activity with credible net zero pathways over time

Set the scope:

☐ Identify listed equity and corporate fixed-income assets undertaking activities material to the transition to net zero for assessment and alignment action. The PAII recommends these material companies are those covered by sectors in NACE code categories: A-H and J-L.[12 13]

Assess the alignment of assets:

☐ Assess higher impact companies[14] against the following high level current and forward-looking alignment criteria that constitute a Net Zero Transition Plan:

1. **Ambition:** A long term 2050 goal consistent with achieving global net zero
2. **Targets:** Short- and medium-term emissions reduction target (scope 1, 2 and material scope 3)
3. **Emissions performance:** Current emissions intensity[15] performance (scope 1, 2 and material scope 3) relative to targets
4. **Disclosure:** Disclosure of scope 1, 2 and material scope 3 emissions
5. **Decarbonisation Strategy:** A quantified plan setting out the measures that will be deployed to deliver GHG targets, proportions of revenues that are green and where relevant increases in green revenues
6. **Capital Allocation Alignment:** A clear demonstration that the capital expenditures of the company are consistent with achieving net zero emissions by 2050

Additional criteria that are part of a company's overall net zero transition plan that should be incorporated where feasible, as data availability increases, include:

14. Companies on the Climate Action 100+ focus list; companies in high impact sectors consistent with Transition Pathway Initiative sectors; banks; and real estate are considered high impact for the purposes of this assessment. See Appendix B for the relevant GICS classification for TPI sectors.

15. This assessment should be the performance against targets set, where targets have been set in line with science-based net zero pathways. It may be relevant for companies to provide information on absolute as well as intensity-based metrics

7. **Climate Policy Engagement:** The company has a Paris-Agreement-aligned climate lobbying position and demonstrates alignment of its direct and indirect lobbying activities
8. **Climate Governance:** Clear oversight of net zero transition planning and executive remuneration linked to delivering targets and transition
9. **Just Transition:** The company considers the impacts from transitioning to a lower-carbon business model on its workers and communities
10. **Climate risk and accounts:** The company provides disclosures on risks associated with the transition through TCFD reporting and incorporates such risks into its financial accounts

- ☐ Assess other (lower impact) companies within scope against criteria 2, 3 and 4.
- ☐ Assess all companies for revenues associated with activities compliant with EU taxonomy mitigation criteria, from both categories 'substantial mitigation contribution' and 'enabling activities'. Capex may be used where relevant.

Emissions reduction targets, strategies and capex allocations should be consistent with sector specific pathways related to emissions performance, that are in line with a science-based global net zero emissions trajectory.

The criteria laid out above provide a high level framework for the alignment assessment of companies, and their Net Zero Transition Plans. Methodologies used to assess the alignment of assets should include the above features. The recommended existing methodologies that can be used in the assessment of this asset class are:

- The Climate Action 100+ Net Zero Company Benchmark and associated sector specific guidance.
- Transition Pathway Initiative carbon performance and management quality indicators.
- Science Based Targets Initiative (for assessing criteria 2, 3, and 4).

To represent best practice, data vendors providing assessments consistent with the alignment criteria should ensure alignment with the latest detailed guidance on indicators from Climate Action 100+. PAII anticipates continued evolution of indicators under each criterion including subsequent enhanced guidance notes on indicators.

Using the above criteria and methodologies, investors should determine where an asset sits on the alignment maturity scale:

- Achieving **net zero**, defined as: companies that have current emissions intensity performance at, or close to, net zero emissions with an investment plan or business model expected to continue to achieve that goal over time
- **Aligned** to a net zero pathway, defined as:
  - Meeting criteria 1-6 (or 2, 3 and 4 for lower impact companies)
  - Adequate performance over time in relation to criterion 3, in line with targets set.
- **Aligning** towards a net zero pathway, defined as:
  - Have set a short or medium-term target (criteria 2)
  - Disclosure of scope 1, 2 and material scope 3 emissions data (criteria 4)
  - A plan relating to how the company will achieve these targets (partial criteria 5)
- **Committed to Aligning**, defined as:
  - A company that has complied with criteria 1 by setting a clear goal to achieve net zero emissions by 2050
- **Not aligned** – all other companies

This assessment of categories enables investors to set and measure performance against the targets below. It should also inform the strategy for alignment actions as described in the following sections. Assets not aligning or showing progress towards meeting the criteria to be considered as "aligning" (such as the complementary indicators) should be the immediate and urgent priority for engagement or reweighting in portfolio construction.

Consideration for selective divestment or exclusions should be given to assets that do not meet any of the criteria that indicate they have the potential to transition within a specified timeframe that is consistent with remaining on a global net zero pathway. Investors should also address companies that do not continue to improve performance against the criteria over the longer term.

Set targets for alignment as described in Section 5:

- ☐ A 5-year portfolio coverage goal for increasing the percentage of AUM in material sectors[16] classified as achieving net zero, aligned or aligning.
- ☐ An engagement goal to ensure at least 70% of financed emissions in material sectors are either net zero, aligned to a net zero pathway, or the subject of direct or collective engagement and stewardship actions.
- ☐ A target for increasing the percentage of revenues from climate solutions (revenues/AUM).

16. Material sectors is defined as those in NACE code categories A-H and J-L.

Actions to align portfolios and achieve targets:

A. Portfolio construction

- ☐ For existing active assets, positively weight towards good performers and underweight poor performers within a sector based on alignment criteria and climate solutions revenues.
- ☐ For new active assets, apply screening criteria as part of investment analysis for inclusion based on alignment or potential for transition.
- ☐ Use specialist benchmarks, products or funds focussed on alignment and climate solutions.
- ☐ For passive assets, apply an index that utilises positive weightings based on alignment criteria and a climate solutions revenue metric.
- ☐ Increase allocation to green bonds that are based on verifiable forward-looking use of proceeds for climate mitigation activities, as part of the strategy to increase investment in climate solutions.

B. Engagement and stewardship

- ☐ Publish a voting policy that aligns to the Framework.
- ☐ Set an engagement strategy with clear milestones and an escalation process with a feedback loop to investment, weighting, and divestment decisions.
- ☐ Prioritise engagement efforts based on relative exposure (weighted carbon intensity).
- ☐ Undertake engagement with companies to improve performance against the assessment criteria set out above.
- ☐ Inform companies of expectations in relation to alignment criteria. For listed equity this should include informing companies of voting intentions in advance of votes being taken, and reasons for the vote after it has taken place, to improve company performance against metrics in line with the engagement strategy.
- ☐ Join collective engagement initiatives, such as Climate Action 100+, and play an active role in engagement activities.
- ☐ Publish voting records, and rationale for deviating from policy and be clear how assets have been managed in alignment with clients' stewardship and investment policies.

For listed equity, specifically:

- ☐ Implement an escalation approach, using the full range of routine AGM routes.
- ☐ Where a company is not on track to achieve its transition plan or targets set for two years or more, vote against the board, remuneration policy, annual report and accounts.
- ☐ Vote against M&A unless the post M&A company meets or can be expected to meet the criteria within a reasonable period.
- ☐ Ensure you or your managers have voting rights to undertake the above actions.
- ☐ Co-file and/or support shareholder resolutions in line with the criteria.

For corporate fixed income:

- ☐ Engage issuers to secure agreement to alignment criteria including the potential use of covenants and KPI linked bonds as mechanisms to ensure alignment criteria are met during the lifetime of the bond.
- ☐ Engagement should commence well in advance of the issuance process itself, both as a key part of the research informing investment strategy and decisions and to set clear expectations of companies in relation to alignment criteria that should be demonstrated to secure financing.
- ☐ Corporate fixed income instruments can be issued by different entities within a single group. The assessment of alignment should be made at issuer level, although consideration may be given to parent performance and engagement undertaken at parent level.

C. Selective divestment

In particular, where investors already have holdings in assets that are not aligned to net zero, engagement and stewardship actions are recommended as the first tool to drive alignment. However, investors should consider divestment or exclusion:

- ☐ As a consequence of climate financial risk assessment.
- ☐ As a consequence of escalation following engagement.
- ☐ For companies whose primary activity is no longer considered permissible within a credible pathway towards global net zero emissions, identify exclusions over relevant timeframes.

  In this regard, it is recommended that investors should not allocate additional capital[17] to companies which are planning or constructing new thermal coal projects and associated infrastructure (power, mining) or taking forward new exploitation of tar sands. Where investors are existing shareholders or bondholders in such companies, they should use active and escalating engagement with the aim of ensuring no new thermal coal generation is developed and no further tar sand resources are exploited, and also that phase out of existing unabated capacity and activity is undertaken in line with net zero pathways. In advocating for these transition plans, investors should recognise the need for a just transition in countries or regions where there is significant economic dependence on thermal coal power or mining.

Box 3: Benchmarks and Indexes

The PAII recommends use of benchmarks and indexes that reflect company performance against the set of alignment and transition criteria, and by weighting companies in benchmarks to incentivise companies to align to net zero goals. The PAII notes that the EU has set out the Paris-Aligned Benchmark (PAB) and the Climate Transition Benchmark (CTB), where the benchmark construction currently expresses "Paris Alignment" as a very ambitious reduction relative to the respective market, region or sector benchmark (-50%/-30% GHG emissions intensity in PAB/CTB) which the PAB/CTB achieve with/without exclusions, respectively. Both the CTB and PAB indices also focus on a 7% year-on-year carbon footprint reduction as also endorsed by the UN's Emissions Gap report and can be developed based on any regionally or sector-focused benchmark, instead of overall market benchmarks, thereby permitting investors to choose diverging emissions reduction pathways (e.g. between developed and emerging markets).

The PAII wants to incentivize allocation of capital to assets whose emissions are declining over time and to climate solutions. However, it considers this may be more effectively achieved by maintaining investment in assets, where there is an opportunity to maximise real world impacts by driving reductions in companies that need to transition through stewardship and engagement, rather than initially excluding issuers from a benchmark to achieve an immediate ambitious emissions reduction target. Therefore, the PAII suggests that investors would not necessarily need to meet the PAB requirements for benchmarks used as part of alignment strategies. CTB style benchmark construction, where a less aggressive initial emissions intensity reduction is incorporated, may better reflect an approach which can take account of transition potential of assets in the short term, while also expecting the overall emissions reduction requirement to be met over time through index constituent's weighting towards best-performing assets according to alignment criteria. The PAII would encourage the European Commission to further reflect the relevance of products that take account of the transition dynamic for assets as they promote sustainable finance in the EU and further implementation of its sustainable finance strategy.

17. Additional capital refers to a) primary investment through new share or bond issuance and b) secondary investment in shares or bonds purchased on the secondary market.

7.3. Real Estate

Assessment of assets

- ☐ Set scope for assessment and alignment
- ☐ Assess assets using CRREM tool to determine alignment with 1.5 degree pathway
- ☐ Prioritisation for engagement based on level of stranding risk and exposure
- ☐ For direct investments assess options for investment/ management to achieve alignment

Alignment Metrics (M) and Targets (T)

M. Current and forward looking alignment based on carbon emissions and energy use in line with net zero pathways (CRREM tool)

T. Increase % AUM in net zero or aligned assets – 5 year goal

T. Total coverage of assets aligned or under active management or engagement 70% of financed emissions from material sectors (combined with equities and corporate fixed income)

Implementation

A. Portfolio construction:

- ☐ Screening and setting criteria for potential investments using CRREM tool

B. Investment/management

- ☐ For direct investments (and own buildings) agree investment / management plans to align assets through retrofits to reduce energy use, increase renewable energy use

C. Engagement:

- ☐ Tenant engagement to improve data collection and facilitate investment/management for alignment of assets;
- ☐ Alignment based escalation strategy and voting (for listed assets);
- ☐ Encourage corporate tenants to adopt targets and align including occupied buildings

Set the scope:

- ☐ Include individual direct investments, investments in assets pooled through a fund structure, and investments in listed real estate companies.
- ☐ Include all types of real estate (e.g. commercial, residential, industrial etc).

Assess the alignment of assets:

- ☐ Assess current and forward-looking alignment based on carbon emissions and energy intensity in line with net zero pathways[18].
- ☐ For projections of future alignment, account for:
  - Assumptions about the energy mix and demand in different buildings and locations
  - Potential for, and plans relating to, retrofit and other investments to address emissions and energy use.

Carbon reduction pathways should include scope 1, 2 and relevant scope 3 emissions. Scope 3 emissions in the 2019 Global Real Estate Sustainability Benchmark (GRESB) Assessment were calculated as the emissions associated with tenant- controlled areas, electricity purchased by the tenant and indirectly managed assets if these have not been reported upon already in scope 1 and scope 2 emissions. Scope 3 emissions should not include emissions generated through the entity's operations or by its employees, transmission losses or upstream supply chain emissions. Embodied carbon is not included at this time, but should be considered in strategies and accounted for as methodologies become available.

The PAII proposes that, where corporate tenants have their own net zero targets, these can be taken into account, providing that these targets include appropriate goals for energy use in occupied buildings and meet the criteria, for example, on the use of offsets, set out in this document.

Methodologies used to assess the alignment of assets should include the above features. The recommended methodology for the assessment of this asset class is:

- ▶ The Carbon Risk Real Estate Monitor (CRREM)[19]

18. The PAII recommends including all buildings in the analysis, using estimates and approximations to cover areas where data is missing, rather than excluding these from scope.
19. https://www.crrem.eu/ and https://www.crrem.org/

Set targets for alignment as described in Section 5:

- ☐ A 5-year target to increase the percentage of AUM in net zero or aligned assets.
- ☐ An engagement goal to ensure at least 70% of financed emissions in material sectors are either net zero, aligned to a net zero pathway, or the subject of direct or collective engagement and stewardship actions.

Actions to align portfolios and achieve targets:

A. Portfolio construction

- ☐ Collect necessary data to assess a portfolio using the CRREM tool or equivalent standard, using estimations and approximations to cover areas where data is missing.
- ☐ Screen new investments using the CRREM model or equivalent standard to assess alignment, and incorporate into decision-making in order to achieve targets over time.

B. Investment / management

- ☐ Develop a clear timebound management and investment strategy supported with strong ESG policies and appropriate carbon reduction commitments that, over time, achieves a portfolio consistent with the pathways set out in the CRREM tool, or equivalent standard.
- ☐ Strategies and plans adopted and implemented by all relevant stakeholders and translated into agreements with relevant parties involved in the management of real estate assets.
- ☐ For direct investments (and own buildings) agree investment/management plans to align assets through retrofits to reduce energy use and increase renewable energy use.

C. Engagement and stewardship

- ☐ Prioritise engagement based on the level of stranding risk and exposure. For listed real estate companies, follow the actions set out in the listed equity and corporate fixed income section (section 7.2).
- ☐ Engage with tenants, prioritising engagement based on the level of stranding risk and size of exposure to assets, in order to:
    - Improve the data collection process for energy use by encouraging or even requiring tenants to share energy use data with building owners.
    - Facilitate actions and investments that reduce energy costs for tenants and owners, and cut carbon emissions in line with science-based net zero goals.
    - Address the split incentive which sometimes exists between building owners and tenants and allow the costs of retrofits to be shared between building owners and tenants through building service charges.
    - Encourage corporate tenants to adopt corporate emissions reduction targets consistent with net zero.
    - Strengthen the role of green leases.
    - Strengthen cooperative policy engagement to improve the policy framework around investments in building retrofits.
    - Report and disclose with the objective of achieving a positive scoring on the GRESB tenant engagement indicators related to climate and energy use.

8. Policy Advocacy and Market Engagement

- ☐ Investors should ensure that direct and collective policy advocacy supports policy and regulation relevant for achieving global net zero emissions by 2050 or sooner.
- ☐ Collectively or directly engage with policymakers and regulators on:
  - Carbon pricing relevant to achieving the net zero transition.
  - The availability of granular sector and regional pathways towards net zero emissions by 2050.
  - Improving disclosure of information relevant to assessing alignment and investment in climate solutions, and advocating for mandatory TCFD disclosure from companies.
  - Increasing shareholder rights.
  - Integrating the CRREM 1.5°C relevant national emission reduction pathways for different building types, into meaningful and binding targets, policy frameworks and corresponding timelines for the real estate industry.
  - Enabling improved energy use data disclosure and data-sharing initiatives.
  - Incentives to promote retrofits and new builds that meet the required energy efficiency.

This advocacy may be delivered through activities such as meetings, letters, responding to consultations, and media activity, as well as ensuring trade association advocacy is consistent with net zero goals.

- ☐ Participate in collective policy advocacy activities of investor networks including signing the Investor Agenda's[20] Global Investor Statement on Climate Change, as well as regional or national policy advocacy activities.
- ☐ Engage with market actors including credit rating agencies, auditors, stock exchanges, proxy advisers, investment consultants, and data and service providers to ensure that their assessments, data and products are based on alignment criteria, robust methodologies, and consistent with net zero emissions by 2050.
- ☐ Asset owners should include engagement with existing and potential asset managers to encourage managers to provide strategies and products to achieve asset owners, net zero investment goals. Asset managers should engage with existing and potential clients to encourage uptake of such strategies and products, provide research and analysis to support climate risk assessment and net zero investing.

20. https://theinvestoragenda.org/

9. Recommended Disclosures

The networks recognise that investors already have a range of reporting requirements and voluntary disclosures which they are undertaking. The PAII does not intend to create a separate reporting template or standard, and investors should implement disclosures in line with regulatory requirements and specific best practice relevant to their jurisdiction. However, the networks consider it best practice for investors to set out a transparent climate action plan which outlines how they intend to take forward action relevant to alignment with net zero, including how they expect to implement components of this Framework.

In terms of disclosure, the networks already advocate that asset owners and asset managers should disclose annually in line with the recommendations of the TCFD with respect to climate-related financial risk. To ensure transparency and robust implementation of net zero commitments the networks also recommend disclosing the following information related to implementation of the Framework, which can be done in line with the TCFD reporting structure as follows.

Governance

- ☐ The board/CEO level commitment to the goal of achieving net zero portfolio emissions by 2050 or sooner, as relevant for asset owners or asset managers, and responsibility for implementation of the commitment and strategy.
- ☐ How climate objectives have been incorporated into mandates and objectives for asset managers, portfolio managers, and other personnel as relevant.

Strategy

- ☐ The key principles and components of the investor's strategy for achieving the commitments to net zero and implementing this Framework, and how the strategy and targets represent an investor's maximum possible effort to reducing emissions and increasing allocation to climate solutions.
- ☐ If relevant, how climate metrics, targets and objectives have been incorporated into SAA or similar processes.
- ☐ Constraints identified to achieving greater alignment and how these have been addressed, as appropriate.
- ☐ The key principles and components of a net zero engagement and stewardship strategy, including escalation and milestones.

Metrics and Targets

- ☐ The targets set including how these targets were calculated, and evidence and information that was used to inform the target setting process as referred to in section 5.
- ☐ The science-based scenario(s) or pathway(s) used to guide target setting and assess the alignment of companies, including the name of the relevant model(s), how these meet the parameters in Box 2, and critical assumptions used.
- ☐ Methodologies used to assess alignment of assets, and the extent to which these are consistent with the key features of the methodologies recommended in sections 7.1-7.3.
- ☐ Performance against targets over time, and any updates or adjustments to targets that are relevant.

Management

- ☐ Portfolio construction approaches implemented and/or products developed to facilitate allocation to products that support net zero aligned investing.
- ☐ Engagement, stewardship and direct management actions undertaken in line with recommendations in sections 7.1-7.3, performance in relation to the engagement threshold, and key outcomes achieved.
- ☐ Voting policy and voting record, including an explanation of any deviations from the policy.
- ☐ Policy in relation to exclusions or phase out of fossil fuel investments.
- ☐ Where divestment or exclusion has been used, the rationale, and the extent to which this has been the means to achieve targets.
- ☐ Information on direct and collective policy actions undertaken across the key areas for advocacy mentioned in section 8, including outcomes achieved.
- ☐ Information on market engagement actions undertaken as mentioned in section 8, including outcomes achieved.

When disclosing the information set out above, where an investor has decided to use an alternative approach or methodology to those recommended in the Framework, the investor should provide an explanation as to how this meets the key criteria set by the PAII for alignment action as set out in Box 1.

10. Asset Manager application of the Framework components

Asset Managers range from those who provide all services to a single asset owner, through large diversified multi-client managers, to specialist managers (e.g. sector/product/asset class specific). Where asset managers are carrying out full management of a single client portfolio, all elements of this framework can be applied. Where asset managers are specialists in low-carbon, green or sustainable investments and are, therefore, already managing products and portfolios which are consistent with pathways to net zero, the PAII encourages these managers to follow the principle of maximising the contribution to alignment and to use best practice methods and approaches in implementing their investment strategies as set out in this Framework.

The PAII encourages other asset managers to implement the Framework across their funds under management to the greatest extent possible. The following describe specific expectations of asset managers in this context.

Governance and Strategy

All components in section 4 should be applied by asset managers. However:

- Concerning the overarching commitment to net zero emissions by 2050, asset managers should commit their organisation to support the goal of net zero greenhouse gas ('GHG') emissions by 2050 or sooner, and to work in partnership with asset owner clients on decarbonisation goals, consistent with an ambition to reach net zero emissions by 2050 or sooner across all AUM.
- It is expected that asset managers will develop a strategy as set out in this section. Components of the Framework, and the associated strategy, such as policy advocacy, stewardship and engagement should be implemented across the business and all AUM. Alignment actions such as portfolio construction may only apply to the proportion of assets under management that are being managed in line with net zero goals
- It is also expected that asset managers will assess climate risk and incorporate this in their processes and decision-making for all funds under management.
- Client engagement is an additional key component of a net zero strategy for asset managers, to ensure clients are encouraged to agree on mandates that are Paris aligned, and are aware of and enabled to invest in aligned funds and products.
- Asset managers are also encouraged to develop new Paris aligned products, funds and strategies across asset classes and educate clients regarding these offerings.

Targets and Objectives

While asset owners have the jurisdiction to set a net zero goal and targets across their AUM, asset managers will need to engage with clients over time to secure mandates and adjust or design products to enable an increasing proportion of funds under management to be managed in line with net zero. Therefore:

- In the short term, asset managers should establish and disclose what proportion of assets will be managed in line with a net zero investment strategy and set the recommended targets across the AUM being managed accordingly.
- Asset managers should seek to increase the proportion of assets being managed in line with net zero to 100% over time.

Strategic Asset Allocation

Not all asset managers are responsible for undertaking strategic asset allocation, and therefore the actions set out in this section will only be relevant where asset managers are responsible for these processes on behalf of clients. At the same time, it is relevant for asset managers to implement the recommendations where they undertake similar activities in their investment processes, such as portfolio optimisation.

Asset Class Alignment

For assets under management being managed in line with net zero:

- Asset managers should use the recommended assessment criteria and methodologies, targets, and alignment actions to measure alignment and transition the portfolio over time.

11. Appendix

11.1. Appendix A: Emissions accounting and offsetting

At the whole portfolio level, investors should set targets based on scope 1 and 2 emissions associated with their investments. In the longer term, inclusion of scope 3 emissions may be possible. However, noting the significant issue of double-counting at the portfolio level, it is relevant to consider these separately from scope 1 and 2. Proxies for main scope 3 emissions (i.e. fossil fuel reserves) should be used in the short term and reported separately. Investors may wish to additionally report separately on emissions associated with green bonds to demonstrate how these are impacting the overall performance against emissions reduction targets, although these should not be wholly disaggregated from portfolio emissions targets and reporting.

At asset level, to assess an asset's alignment with net zero, investors should assess scope 1, 2 and material scope 3 emissions associated with the assets in their portfolios, to the extent possible, based on GHG protocol accounting methodologies. For companies, emissions reported should be on an equity share basis. In terms of the attribution to the investor, as proposed by Partnership for Carbon Accounting Financials (PCAF), emissions should be proportionally attributed to the providers of the company's total capital (exposure divided by the sum of enterprise value). In Phase II of the PAII, we expect to assess the definition for material scope 3 emissions by sector, and identify the most robust scope 3 accounting approaches to recommend. Investors need to advocate for transparent reporting on emissions from companies, including scope 3, through policy engagement on disclosure regulations and corporate engagement on TCFD disclosures.

For sovereign bonds, as set out in section 7.1, when considering the alignment performance of a sovereign issuer, the PAII considers it relevant to assess the full territorial emissions of the issuer on a production basis to assess alignment performance. As such, these represent very significant emissions and are not comparable to other equity, corporate fixed income or real assets. Aggregating these emissions within a target could result in significantly over-rewarding small changes in sovereign alignment in the achievement of targets versus other assets where arguably investors have more direct influence. The PAII, therefore, does not recommend including sovereign issuers within the portfolio target or as part of alignment through changes to SAA. There is considerable potential for double-counting emissions across a portfolio, depending on the approach taken. Examples include corporate emissions of an equity holding being double counted as part of territorial emissions of a sovereign bond. However, emissions accounting for the purposes of alignment does not have an objective of apportioning responsibility for emissions or assessing distribution among investors. The purpose is to track the trajectory of emissions associated with a portfolio overall towards net zero. Therefore, providing emissions accounting is done consistently over time, double-counting should not be a concern.

As a general principle, investors should not use purchased offsets at the portfolio level to achieve emissions reduction targets. They should also adopt a precautionary approach when assessing assets' alignment with net zero and the use of offsets. Recognising the finite availability of offsets from land use in particular, and the need to rapidly decarbonise all activities within sectors to the extent possible, investors should not allow the use of external offsets as a significant long-term strategy for achievement of decarbonisation goals by assets in their portfolios, except where there is no technologically or financially viable solution. The PAII will undertake further analysis in Phase II to assess the appropriate use of offsetting in specific sectors. Credits purchased by participants within regulated carbon markets that are designed to meet the net zero emissions goal can be used.

Decarbonisation and avoided emissions should generally be treated separately. Similarly, investors should not offset emissions in one part of their portfolio through accounting for avoided emissions in another part. Given the necessity of effectively reaching zero emissions from investments over time, trading these two against each other is not consistent with creating incentives for investors and underlying assets to maximise their efforts to decarbonise their portfolios to the full extent possible.

11.2. Appendix B: High Impact Sectors

TPI Sector	GICS Sector Name	GICS Sub Industry
Electricity utilities	Energy	Integrated Oil & Gas (10102010)
		Electric Utilities (55101010)
	Utilities	Independent Power Producers & Energy Traders (55105010)
		Multi-Utilities (55103010)
Oil & gas	Energy	Integrated Oil & Gas (10102010)
		Oil & Gas Refining & Marketing (10102030)
		Oil & Gas Exploration & Production (10102020)
		Oil & Gas Storage & Transportation (10102040)
	Materials	Diversified Chemicals (15101020)
Oil & gas distribution	Energy	Oil & Gas Storage & Transportation (10102040)
		Oil & Gas Exploration & Production (10102020)
	Materials	Diversified Chemicals (15101020)
Coal mining	Energy	Coal & Consumable Fuels (10102050)
		Oil & Gas Refining & Marketing (10102030)
	Consumer discretionary	Automobile Manufacturers (25102010)
	Industrials	Industrial Conglomerates (20105010)
		Trading Companies & Distributors (20107010)
	Materials	Diversified Metals & Mining (15104020)
		Steel (15104050)
Autos	Consumer discretionary	Automobile Manufacturers (25102010)
Airlines	Industrials	Airlines (20302010)
Shipping	Energy	Oil & Gas Storage & Transportation (10102040)
	Industrials	Marine (20303010)
Aluminium	Materials	Aluminum (15104010)
		Diversified Metals & Mining (15104020)
	Industrials	Trading Companies & Distributors (20107010)
Cement	Materials	Construction Materials (15102010)
Pulp & paper	Materials	Paper Packaging (15103020)
		Paper Products (15105020)
Steel	Materials	Steel (15104050)

11.2. Appendix B: High Impact Sectors

TPI Sector	GICS Sector Name	GICS Sub Industry
Chemicals	Materials	Commodity Chemicals (15101010)
		Diversified Chemicals (15101020)
		Fertilizers & Agricultural Chemicals (15101030)
		Industrial Gases (15101040)
		Specialty Chemicals (15101050)
Diversified mining	Materials	Diversified Metals & Mining (15104020)
		Copper (15104025)
		Steel (15104050)
Other industrials	Information technology	Electronic Equipment & Instruments (45203010)
		Technology Hardware, Storage & Peripherals (45202030)
	Industrials	Aerospace & Defense (20101010)
		Construction Machinery & Heavy Trucks (20106010)
		Heavy Electrical Equipment (20104020)
		Electrical Components & Equipment (20104010)
	Consumer discretionary	Consumer Electronics (25201010)
	Materials	Construction Materials (15102010)

11. Appendix

11.3. Appendix C: The Paris Aligned Investment Initiative Net Zero Asset Owner Commitment

Commitment
As asset owners with millions of beneficiaries around the world, we reiterate our full support for the Paris Agreement and strongly urge governments to implement the actions that are needed to achieve the goals of the accord, with utmost urgency.

Recognising the need to address the risks that investors and their beneficiaries face from climate change, investors are taking action, but we acknowledge that there is an urgent need to accelerate the transition towards global net zero greenhouse gas emissions and do our part in helping deliver the goals of the Paris Agreement.

In this context, my institution commits to the following consistent with our fiduciary obligations:

1. Transitioning our investments to achieve net zero portfolio GHG emissions by 2050, or sooner
2. Implementing this commitment with the aim of achieving real economy emissions reductions and undertaking a comprehensive set of actions available to investors, drawing on the Paris Aligned Investment Initiative's Net Zero Investment Framework
3. Setting objectives and targets, including an interim target for 2030 or sooner for reducing Scope 1, 2 and 3 emissions associated with our portfolios and setting a target for increasing investment in climate solutions, consistent with a fair share of the 50% global reduction in CO2 identified as a requirement in the Intergovernmental Panel on Climate Change special report on global warming of 1.5°C
4. Where offsets are necessary where there are no technologically and/or financially viable alternatives to eliminate emissions, investing in long-term carbon removals.
5. Ensure any direct and collective policy advocacy we undertake supports policy and regulation relevant for achieving global net zero emissions by 2050 or sooner
6. Implementing a stewardship and engagement strategy, with clear voting policy that is consistent with an objective for all assets in the portfolio to achieve net zero emissions by 2050 or sooner
7. Engaging with asset managers, credit rating agencies, auditors, stock exchanges, proxy advisers, investment consultants, and data and service providers to ensure that funds, products and services available to investors are consistent with achieving global net zero emissions by 2050 or sooner.
8. Setting a target and reducing our operational (Scope 1 and 2) emissions in line with achieving global net zero emissions by 2050, or sooner.
9. Disclosing objectives and targets, and publishing a clear Investor Climate Action Plan for achieving these goals as soon as possible, no later than one year from making this commitment, and reviewing and updating targets every five years or sooner.
10. Reporting annually on the strategy and actions implemented and progress towards achieving objectives and targets, and in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Our institution's commitment recognises that investors across the globe have different opportunities, constraints and starting points for achieving net zero emissions and there are a range of methodologies and approaches available to investors to set targets and implement strategies. In some asset classes or for some investment strategies, agreed net zero methodologies do not yet exist. We will, therefore, work to address these challenges, including through the Paris Aligned Investment Initiative.

Our commitment is based on the expectation that governments and policy makers will deliver on their commitments to achieve the 1.5°C temperature goal of the Paris Agreement, and in the context of fulfilling our fiduciary obligations.

Any institutional asset owner may sign the Net Zero Asset Owner Commitment and use the Net Zero Investment Framework. To be recognised and showcased as making a net zero commitment under the Paris Aligned Investment Initiative an asset owner must complete and submit a signatory form to one of the four regional investor networks (AIGCC, Ceres, IGCC, IIGCC) indicating their CEO has approved signing on.

Asset owners that are members of AIGCC, Ceres, IGCC, IIGCC will have access to activities to support implementation of the commitment provided by the networks.

A separate Q&A document is available upon request and will be updated as relevant to provide further explanation and clarification of the commitment.

Learn more about the PAII Net Zero Asset Owner Commitment here: www.parisalignedinvestment.org

11. Appendix

11.4. Appendix D: Net Zero Asset Managers Commitment

In line with the best available science on the impacts of climate change, we acknowledge that there is an urgent need to accelerate the transition towards global net zero emissions and for asset managers to play our part to help deliver the goals of the Paris Agreement and ensure a just transition.

In this context, my organisation commits to support the goal of net zero greenhouse gas ('GHG') emissions by 2050, in line with global efforts to limit warming to 1.5°C ('net zero emissions by 2050 or sooner'). It also commits to support investing aligned with net zero emissions by 2050 or sooner.

Specifically, my organisation commits to:

a) Work in partnership with asset owner clients on decarbonisation goals, consistent with an ambition to reach net zero emissions by 2050 or sooner across all assets under management ('AUM')

b) Set an interim target for the proportion of assets to be managed in line with the attainment of net zero emissions by 2050 or sooner

c) Review our interim target at least every five years, with a view to ratcheting up the proportion of AUM covered until 100% of assets are included

In order to fulfil these commitments my organisation will:

For assets committed to be managed in line with the attainment of net zero emissions by 2050 or sooner (under commitment b)

1. Set interim targets for 2030, consistent with a fair share of the 50% global reduction in CO_2 identified as a requirement in the IPCC special report on global warming of 1.5°C
2. Take account of portfolio Scope 1 & 2 emissions and, to the extent possible, material portfolio Scope 3 emissions
3. Prioritise the achievement of real economy emissions reductions within the sectors and companies in which we invest
4. If using offsets, invest in long-term carbon removal, where there are no technologically and/or financially viable alternatives to eliminate emissions
5. As required, create investment products aligned with net zero emissions by 2050 and facilitate increased investment in climate solutions

Across all assets under management

6. Provide asset owner clients with information and analytics on net zero investing and climate risk and opportunity
7. Implement a stewardship and engagement strategy, with a clear escalation and voting policy, that is consistent with our ambition for all assets under management to achieve net zero emissions by 2050 or sooner
8. Engage with actors key to the investment system including credit rating agencies, auditors, stock exchanges, proxy advisers, investment consultants, and data and service providers to ensure that products and services available to investors are consistent with the aim of achieving global net zero emissions by 2050 or sooner
9. Ensure any relevant direct and indirect policy advocacy we undertake is supportive of achieving global net zero emissions by 2050 or sooner

11. Appendix

Accountability

10. Publish TCFD disclosures, including a climate action plan, annually, and submit them to the Investor Agenda via its partner organisations for review to ensure the approach applied is based on a robust methodology, consistent with the UN Race to Zero criteria, and action is being taken in line with the commitments made here

We recognise collaborative investor initiatives including the Investor Agenda and its partner organisations (AIGCC, CDP, Ceres, IGCC, IIGCC, PRI, UNEPFI), Climate Action 100+, Climate League 2030, Paris Aligned Investment Initiative, Science Based Targets Initiative for Financial Institutions, UN-convened Net-Zero Asset Owner Alliance, among others, which are developing methodologies and supporting investors to take action towards net zero emissions. We will collaborate with each other and other investors via such initiatives so that investors have access to best practice, robust and science based approaches and standardised methodologies, and improved data, through which to deliver these commitments.

We also acknowledge that the scope for asset managers to invest for net zero and to meet the commitments set forth above depends on the mandates agreed with clients and clients' and managers' regulatory environments. These commitments are made in the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met, including increasing the ambition of their Nationally Determined Contributions, and in the context of our legal duties to clients and unless otherwise prohibited by applicable law. In some asset classes or for some investment strategies, agreed net zero methodologies do not yet exist. Where our ability to align our approach to investment with the goal of net zero emissions by 2050 is, today, constrained, we commit to embark with determination and ambition on a journey, and to challenge and seek to overcome the constraints we face.

Learn more about the Net Zero Asset Managers initiative here: www.netzeroassetmanagers.org

Investor Participation

The Framework was, and continues to be, developed through discussions and collaborative efforts of the Paris Aligned Investment Initiative Working Groups. Members continue to be generous in contributing reflections from their own experiences in aligning portfolios and strategies with climate goals and provide insightful comments during working group meetings and on draft reports from the working groups. We are grateful for the time that continues to be put into this process. The names of the organisations involved are below.

Aberdeen Standard Investments
Aegon Asset Management
AIP Management P/S
Allianz Global Investors
Allianz Investment Management
Ambienta Sgr S.p.A.
AP2 (Second Swedish National Pension Fund)
APG Asset Management
Arisaig Partners Research Services (UK) Ltd
Atlas Infrastructure
ATP
AustralianSuper
Aviva Investors
Avon Pension Fund
AXA Investment Managers
Baillie Gifford & Co
Barclays Bank UK Retirement Fund
BlackRock
BMO Global Asset Management (EMEA)
Brunel Pension Partnership
Bundespensionskasse AG
CCLA Investment Management
CDC Group PLC
Central Finance Board of the Methodist Church
Church Commissioners for England
Church of England Pensions Board
DWS
EBRD (European Bank for Reconstruction and Development)
Elo Mutual Pension Insurance Company
Environment Agency Pension Fund
ERAFP
FIL Investments International (Fidelity)
FTSE Russell
Fulcrum Asset Management
FullCycle Management LLC
GAM Investments
Generation Investment Management LLP
Goldman Sachs Asset Management International
Greater Manchester Pension Fund
Handelsbanken AB Publ
Hermes GPE LLP
HSBC Bank Pension Trust (UK) Ltd.
HSBC Global Asset Management
IFM Investors
Impax Asset Management
Insight Investment
Invesco UK Limited
Janus Henderson Investors
JP Morgan Asset Management
Jupiter Asset Management
KBI Global Investors
Kempen Capital Management
La Banque Postale
Lærernes Pension
Lazard Asset Management
Legal & General Investment Management
LGPS Central
LGT Capital Partners
Linklaters LLP
Lloyds Banking Group Pensions Trustee Limited
Local Pensions Partnership Investments Ltd
Lombard Odier (Bank Lombard Odier & Co. Ltd)
M&G Investments
Macquarie Asset Management
Mercer
MN
Moody’s Investor Service
Moody's Analytics
MSCI ESG Research (UK) Limited

Investor Participation

National Trust for Places of Historic Interest or Natural Beauty

NEST

NextEnergy Capital Ltd

Ninety One

NN Group

NN Investment Partners

Nordea Asset Management

OFI Asset Management

Ortec Finance

Pension Protection Fund

PGGM

Phoenix Group

Pictet Asset Management

PIMCO LLC

PKA

RAM Active Investments SA

Rathbone Greenbank Investments

Redington Limited

Robeco

Royal London Asset Management

RPMI Railpen

Russell Investments

Santander Asset Management

Sarasin & Partners LLP

Scottish Widows, part of Lloyds Banking Group

SEB Investment Management AB

Storebrand Asset Management

Swedbank Robur Fonder AB

T. Rowe Price International Ltd

The international business of Federated Hermes

The Lankelly Chase Foundation

TPT Retirement Solutions

UBS Asset Management

Union Investment Institutional GmbH

Universities Superannuation Scheme

University of Cambridge

Wellington Management LLC

Wermuth Asset Management

West Midlands Pension Fund

WHEB Group

Willis Towers Watson

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NET ZERO
INVESTMENT FRAMEWORK 1.5°C

Paris Aligned Investment Initiative: Implementation Guide

IIGCC
The Institutional Investors Group on Climate Change

Ceres

Asia Investor Group on Climate Change

Investor Group on Climate Change

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