IIGCC

The Institutional Investors Group on Climate Change

PARIS ALIGNED INVESTMENT INITIATIVE:

Net Zero Investment Framework for Consultation

IIGCC

The Institutional Investors Group on Climate Change

About IIGCC

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 250 members, mainly pension funds and asset managers, across 16 countries, with over €33 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.

For more information visit www.iigcc.org and @iigccnews

IIGCC is grateful to the sponsors and funders of this initiative:

THE CHURCH OF ENGLAND PENSIONS BOARD

BRUNEL Pension Partnership

Environment Agency Pension Fund

European Climate Foundation

Supported by the European Climate Foundation

Investor Participation

The Framework was developed through discussions and collaborative efforts of the Paris Aligned Investment Initiative Working Groups (which are part of the IIGCC Investor Practices Programme). Members were generous in contributing reflections from their own experiences in aligning portfolios and strategies with climate goals and gave insightful comments during working group meetings and on drafts of reports from the working groups. We are grateful for the time they put into this process. The names of the organisations involved are below.

Aberdeen Standard Investments
Aegon Asset Management
Allianz Global Investors
Allianz Investment Management
AP2 (Second Swedish National Pension Fund)
APG Asset Management
Atlas Infrastructure
ATP
Aviva Investors
AXA Investment Managers
BMO Global Asset Management (EMEA)
Brunel Pension Partnership
Bundespensionskasse AG
CCLA Investment Management
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
FTSE Russell
Greater Manchester Pension Fund
Handelsbanken AB Publ
HSBC Bank Pension Trust (UK) Ltd.
HSBC Global Asset Management
Impax Asset Management
Insight Investment
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
M&G Investments
Mercer
MN
Moody's Analytics
MSCI ESG Research (UK) Limited
NEST
NextEnergy Capital
Ninety One
NN Group
Nordea Asset Management
OFI Asset Management
Ortec Finance
Pension Protection Fund
PGGM
Phoenix Group
PIMCO LLC
PKA
Rathbone Greenbank Investments
Robeco
Royal London Asset Management
RPMI Railpen
Sarasin & Partners LLP
Scottish Widows, part of Lloyds Banking Group
The international business of Federated Hermes
The Lankelly Chase Foundation
TPT Retirement Solutions
UBS Asset Management
Universities Superannuation Scheme
Wermuth Asset Management
WHEB Group
Willis Towers Watson

Contents

1.	The Paris Aligned Investment Initiative	6
2.	The Net Zero Investment Framework	9
2.1	Defining 'Paris Alignment' for Investors	10
2.2	Governance and Strategy	11
2.3	Setting Targets, Objectives and Reporting	12
2.4	Strategic Asset Allocation	16
2.5	Asset Class Alignment	19
2.6	Asset Class Alignment: Sovereign Bonds	20
2.7	Asset Class Alignment: Listed Equity and Corporate Fixed Income	23
2.8	Asset Class Alignment: Real Estate	31
	Annex 1: Emissions Accounting and Offsetting	37

Acknowledgements

IIGCC would like to thank the steering group of the Paris Aligned Investment Initiative and the co-leads of the four working groups for their guidance, support and leadership in development of the Framework:

Members of the steering group: **Adam Matthews** (Church of England Pensions Board), **Lucian Peppelenbos** (APG), **Christina Olivecrona** (AP2), **Peter Smith** (TPT Retirement Solutions), **Michael Marshall** (LGPS), **Faith Ward** (Brunel Pension Partnership), **David Adkins** (Lloyds Banking Group Pensions Trustees), **Dewi Dylander** (PKA).

Co-leads of the four working groups: **Craig Mackenzie** (Aberdeen Standard), **Bart Kuijpers** (BMO GAM), **Inger Huus-Pedersen** (PKA), **Lupin Rahman** (Pimco), **Kaisie Rayner** (Scottish Widows), **Francis Condon** (UBS Asset Management), **Murray Birt** (DWS) and **Faith Ward** (Brunel Pension Partnership) for their guidance, support and leadership in development of the Framework.

IIGCC would like to thank Vivid Economics and Planetrics for their expert input and peer review of documents.

IIGCC
The Institutional Investors Group on Climate Change

Foreword from the co-chairs of the Paris Aligned Investment Initiative

As institutional investors, we recognise the damaging impacts climate change will have on our investments but also on our beneficiaries. We therefore want to lead the way in achieving a net zero economy by 2050 as part of our fiduciary responsibilities and must act now if we are to achieve this goal. Since the Paris Agreement, we have seen a range of innovations, methodologies and tools emerge to help investors take action on climate change. But these efforts have been fragmented, and none have provided a comprehensive, systematic and forward-looking approach to guide investor action and deliver impact in the real economy.

This is why, in May 2019, IIGCC established the Paris Aligned Investment Initiative (PAII) to explore how investors can align their portfolios with the goals of the Paris Agreement, and to translate the Paris Agreement of governments into a Net Zero Investment Framework for asset owners and asset managers. Our aim is to establish a common understanding of effective approaches and methodologies to guide the ambitious action required, and to provide clarity to market participants and stakeholders. Over the last year, PAII has addressed these issues through a collaborative process involving more than 70 investor members of IIGCC representing over $16 trillion in assets under management.

Drawing on the conclusions of the first phase of our work, the Net Zero Investment Framework being issued for consultation, 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 by asset managers, considering their different mandates and starting points.

Whilst there is no 'one size fits all' solution to alignment, investors need to focus on maximising efforts that achieve decarbonisation in the real economy. This requires a comprehensive 'investment strategy' led approach, supported by concrete targets set at portfolio and asset level – combined with smart capital allocation, and engagement and advocacy activity. And it must both deliver emissions reductions but also increase investment in the climate solutions we need to achieve net zero.

Taking this approach will allow investors to drive essential decarbonisation of the economy and help minimise the negative impacts of climate change, whilst seizing significant investment opportunities.

The goal of issuing a framework is to provide a basis on which a broad range of investors can define strategies, measure alignment and transition portfolios. We strongly encourage and welcome the input of the investment community and other stakeholders to this consultation to help us corroborate and strengthen the proposed framework, and propel forward the work that has already been done.

Our work to date has highlighted some of the challenges and complexities in managing a portfolio towards net zero and assessing alignment of assets. This framework does not resolve every issue, nor cover all asset classes in investment portfolios. Further work in a Phase II of PAII will expand the Framework to include infrastructure and private equity, and to address technical issues such as scope 3 emissions assessment and additional target methodologies.

We are ultimately aiming to provide a comprehensive framework that enables all investors to undertake ambitious strategies to transition portfolios towards achieving net zero emissions and a decarbonised global economy. Only by doing so at scale, in a way that works across asset classes and for a range of investors, will we achieve the systemic shift in investment flows required to deliver on the goals of the Paris Agreement.

Lucian Peppelenbos
Senior Responsible Investment and Governance Specialist
APG Asset Management

Adam Matthews
Director of Ethics and Engagement
Church of England Pensions Board

1. The Paris Aligned Investment Initiative

1.1. Background

IIGCC's Paris Aligned Investment Initiative was launched in May 2019, with the aim of exploring how investors can align their portfolios to the goals of the Paris Agreement. More than 70 IIGCC members, representing over USD 16 trillion in AUM have engaged in the initiative to date.

The first phase of PAII aimed to:

- Develop working definitions of key concepts, terms and clarify pathways relevant to Paris alignment, in order to build understanding and consensus around these concepts (stage 1).
- Analyse potential methods that could be used to assess alignment of different asset classes, determine the make-up of an aligned portfolio, and assess approaches for transitioning portfolios, in order to provide a menu of practical options for transitioning and assessing alignment to the Paris goals (stage 2).
- Test the approaches to transition and methodologies for assessing alignment using real world portfolios, in order to understand financial characteristics, risks, issues, and opportunities associated with the transition of portfolios to a Paris aligned pathway (stage 3)

This document proposes a draft 'Net Zero Investment Framework' (hereafter 'The Framework') for asset owners to define and implement a strategy for aligning their portfolios to the Paris Agreement. It is based on the work of stages 1 and 2 above, and is the first output of the PAII. The Framework aims to provide a consistent basis for alignment to the goals of the Paris Agreement and provides recommendations for approaches and methodologies that a broad range of investors can utilise. However, the Framework requires investors to set their own specific strategies and undertake actions according to their circumstances and legal requirements. Once the Framework is finalised, the intention is that investors would adopt the Framework on an 'implement or explain' basis, to take account of specific strategies where some elements of the Framework may not be applicable, while still achieving the overall objectives.The Framework is presented for asset owners, but can also be operationalised by asset managers. Box 4 provides specific information in relation to asset manager implementation. The initial framework covers four major asset classes: sovereign bonds, listed equity, corporate fixed income, and real estate. Further work will be undertaken in Phase II of the PAII to broaden the Framework to include additional asset classes (infrastructure and private equity), consider the adaptation goals of the Paris Agreement, and address technical issues identified in Phase I.

The PAII has assessed a wide range of currently available methodologies and approaches for measuring or undertaking alignment, using criteria agreed by members (Box 1) to determine which should be recommended as part of this framework. While all methodologies and approaches have some challenges or limitations, the PAII aimed to identify practical solutions for investors to take action now, while also highlighting areas that need to evolve to improve investors' ability to align portfolios. We expect implementation (and further development of the Framework) to be an iterative process as data availability and coverage, and robustness of methodologies improves over time.

The PAII notes that if policy and corporate action does not progressively transition towards the net zero goal, it will be extremely challenging for a large number of investors to achieve a portfolio of assets that has net zero emissions in 2050. The Framework is therefore based on the expectation that governments and policy makers will deliver on commitments to achieve the 1.5°C temperature goal of the Paris Agreement.

The PAII has, therefore, also identified issues for policy makers, companies, and other actors such as service and data providers that are necessary to address to facilitate Paris alignment by investors, which are noted in this draft.

Box 1: Guiding principles for developing the Framework

The PAII followed **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 different 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.

1.2. Consultation on the Framework

This version of the Net Zero Investment Framework is presented as a draft for consultation. IIGCC is seeking feedback from a broad range of stakeholders to strengthen the Framework and ensure we have fully considered all relevant methodologies and approaches for alignment. IIGCC therefore warmly invites stakeholders to provide feedback on the Framework. There are a number of consultation questions throughout the document which indicates where we would specifically welcome feedback.

Stakeholders can **submit feedback** on the Framework and responses to questions via an online platform. The consultation form is also available as a word document to download and submit by email if preferred. The deadline for consultation responses is 25 September 2020.

IIGCC will be holding a number of consultation webinar events to present the Framework and gather feedback. If you would like to attend one of these events, please either **register here**, visit the events page on the **IIGCC website**, or contact **Danielle Boyd** for further details.

IIGCC expects to publish an **updated version of the Framework** in the autumn, taking into account feedback received during the consultation period. This will also reflect the results of the portfolio testing phase where we are applying the recommended methodologies in the Framework to five portfolios, and assessing the consequent financial implications for portfolios.

1.3. Next steps and further work

The intention is that investors can **make net zero commitments** on the basis of the finalised framework, and IIGCC will be inviting members and other investors to do so. This will demonstrate clear ambition from investors and help to build momentum towards COP26 in Glasgow in 2021. In this regard we are also aiming to become a partner in the 'Race to Zero' initiative launched by the UNFCCC in June[1].

We are also **launching Phase II of the PAII through which we will develop additional elements of the framework**. In Phase II we intend to:

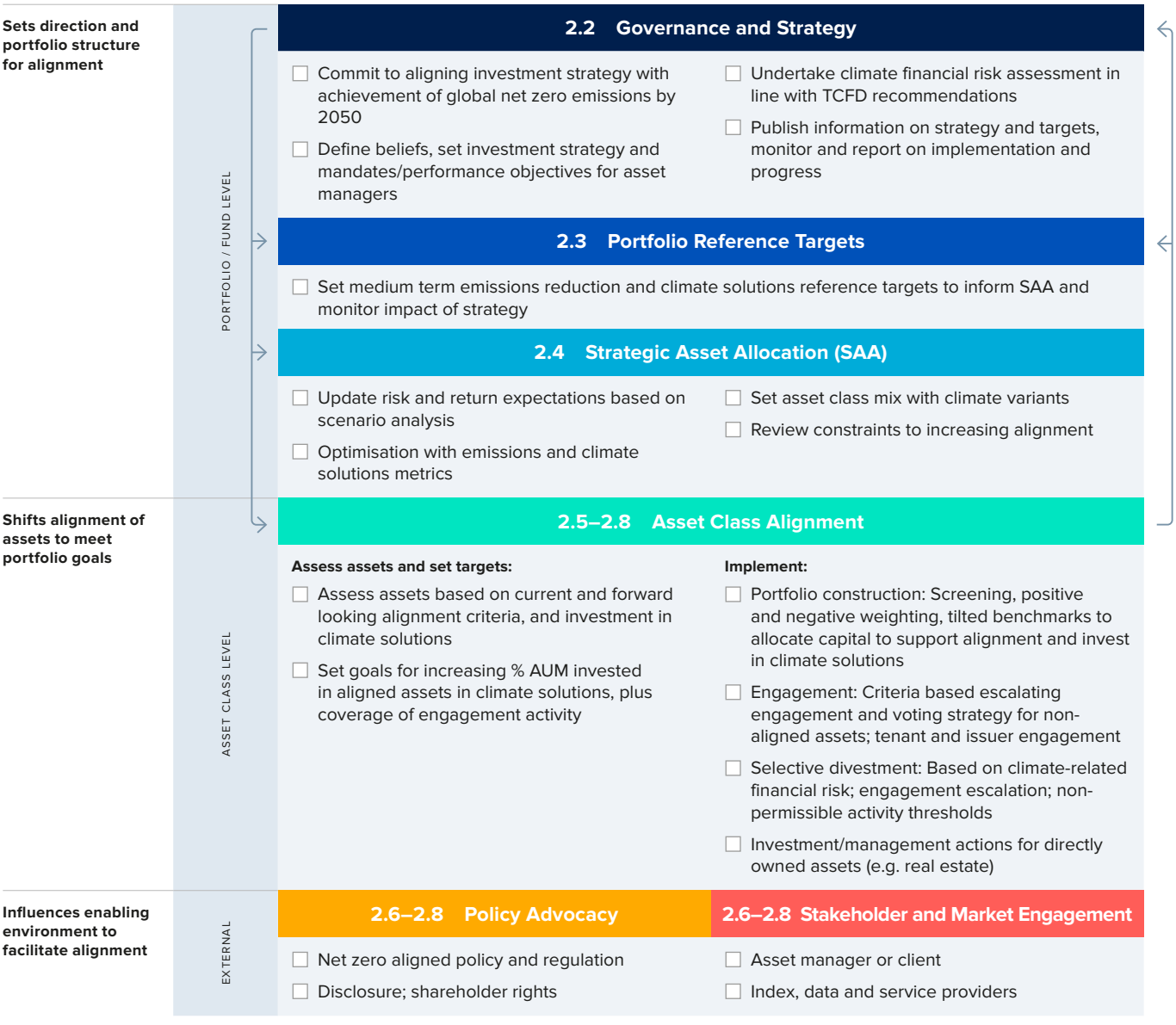
- Analyse methodologies and approaches for **two additional asset classes: infrastructure and private equity** and add these into the scope of the Framework
- Consider how investors can align portfolios to support the **adaptation and resilience** goals of the Paris Agreement
- **Address key analytical gaps identified** during Phase I, including:
  - Identifying and measuring material scope 3 emissions
  - Addressing treatment of offsetting and negative emissions technologies in more detail
  - Assessing the potential for methodologies that capture relative impact of climate solutions investment (e.g. avoided emissions), and clarifying methodologies to assess emissions reductions achieved at the asset level
  - Identifying pathways for increasing investment in climate solutions
- Develop additional **guidance to support implementation** of the Framework

IIGCC is interested to hear from organisations or experts that may be interested to contribute to, or partner in this future phase of work. Please contact **Danielle Boyd** to discuss further.

2. The Net Zero Investment Framework

The Net Zero Investment Framework ('The Framework') proposes key components of a net zero investment strategy. The Framework provides recommended methodologies and actions which asset owners and asset managers should utilise to assess and undertake alignment of their portfolios towards net zero, in order 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 concrete targets at portfolio and asset level. It also sets out implementation actions in order to effectively achieve portfolio alignment, meet targets and enable broader transition towards net zero, through a combination of portfolio construction, engagement, and policy advocacy.

Our intent for the Framework is to provide a basis on which a broad range of investors can define strategies, measure alignment and transition portfolios, and we have aimed to take into account the different mandates and starting points of investors to make this framework as universal as possible. The following diagram outlines the main components and actions of the proposed Net Zero Investment Framework and signposts to the corresponding sections of this document which provide more detail and rationale for the recommendations.



2.1. Defining 'Paris Alignment' for investors

The PAII Net Zero Investment Framework considers that "Paris aligned" investment means **implementing an investment strategy that is consistent with achieving the goal of global net zero emissions by 2050**[2].

Delivering a 'net zero investment strategy' should focus on achieving two alignment objectives:

- **Decarbonising investment portfolios** in a way that is consistent with achieving global net zero greenhouse gas (GHG) emissions by 2050.
- **Increasing investment in 'climate solutions'** that are needed to meet that goal, such as renewable energy, low carbon buildings, and energy efficient technologies.

The focus on the whole investment strategy recognises that effective achievement of these two dimensions will involve actions at various levels. It also reflects 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.

The Framework, therefore, presents five components of a net zero investment strategy, setting out recommended approaches at the different levels of investment management, and for different asset classes:

COMPONENT	PURPOSE
Governance and Strategy	To set the overall commitment towards global net zero emissions, provide direction, and a basis for action. Monitoring and accountability for delivery of strategy and achievement of targets are also included.
Setting portfolio level objectives and targets	To set objectives and targets that: ▸ promote investor action that drives decarbonisation of assets ▸ increase investment in climate solutions ▸ define expected progress in emissions reduction and investment at the portfolio level, and measure achievement.
Strategic Asset Allocation (SAA)	To define an optimal asset allocation for the portfolio in order to help achieve alignment goals alongside standard risk/return objectives and other constraints, and specify the way in which asset allocation should be implemented – via choice of benchmarks and design of investment mandates – to achieve goals.
Asset class alignment: ▸ **Sovereign Bonds** ▸ **Listed Equity and Corporate Fixed Income** ▸ **Real Estate**	Assess the current and future potential alignment of assets to the global net zero goal, and their contribution to climate solutions, using relevant indicators and metrics. Incentivise assets to achieve decarbonisation and contribute to climate solutions, and thereby meet portfolio level targets, by: ▸ Using portfolio construction and investment decisions to increase capital allocation to more aligned assets and climate solutions, and withdraw investment from poor performing assets ▸ Using engagement, stewardship, and management to influence assets towards greater alignment
Advocacy and market engagement	To shift the policy environment to support decarbonisation and investment in climate solutions, and increase the ability of investors to take forward a net zero investment strategy. To encourage the market to provide the data, tools, and advice that underpins investors' investment strategy implementation.

2.2. 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. There are, therefore, a number of recommended actions to set the appropriate strategic direction, and provide accountability for implementation of an effective strategy over time.

- ☐ The board or investment committee should **agree the broad principles that they will apply in adopting Paris alignment and publish appropriate investment beliefs.** This should include **a commitment to an investment strategy that is consistent with achieving global net zero emissions by 2050**, subject to fiduciary responsibilities and the expectation of policy development towards achieving the goals of the Paris Agreement.
- ☐ **Risk assessment and management, including scenario analysis, should be undertaken** in line with The Task Force on Climate-related Financial Disclosures (TCFD) recommendations. Given that many portfolios include assets that are currently aligned to an emission pathway above even the International Energy Agency's (IEA) current 'Stated Policies Scenario'[3], reducing exposure to assets that would be stranded under such reasonable transition expectations is the first step towards aligning a portfolio and also best practice fiduciary management.
- ☐ Asset owners should **define an investment strategy that is consistent with achieving global net zero emission by 2050**. The investment strategy should address the following elements, as set out in this framework:
  - Setting portfolio objectives and targets
  - SAA (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 engagement with other relevant market actors identified in this framework

Defining an investment strategy and setting portfolio objectives and targets may, at least initially, be an iterative process based on an assessment of portfolio emissions intensity, allocation to climate solutions, and underlying assessment of asset level alignment in order to determine the maximum extent to which an investor can expect to align a portfolio over time.

- ☐ The board or investment committee should **ensure mandates and performance objectives for asset managers are updated** to ensure their funds are managed to reflect the net zero investment strategy **and review the implementation of these mandates** over time. Working with asset managers to enhance the development and implementation of Paris aligned strategies and products is an important role that asset owners can play to drive the investment system towards delivering the net zero goal.
- ☐ The board or investment committee should **monitor implementation of the strategy and performance against objectives and targets set.**

2.3. Setting targets, objectives and reporting

Portfolio-wide 'top down' targets are an important means to set direction and appropriate ambition for an investment strategy towards net zero, and to monitor whether that strategy is achieving expected outcomes. However, a single top down portfolio emissions reduction target can incentivise investors to only shift the distribution of assets within their own portfolio from high to already lower carbon assets and sectors, and not drive additional "real world" emissions reductions from higher carbon assets.

Moreover, the key outcome that investors should be seeking over time is to increase emissions reductions from the assets in which they invest, and the consequent % of their AUM that is invested in assets that are aligned with the net zero goal.

For this reason, the PAII recommends a combination of top down and bottom up (asset class level) targets. These targets take into account the set of outcomes that an investor should be aiming to achieve, including increasing investments in climate solutions that enable achievement of the net zero goal. For both decarbonisation of assets and investment in climate solutions, targets should also reflect the aim for investors to maximise the impact in the real economy associated with their investments, and take ambitious action across the portfolio.

The proposed types of targets and approach to target setting also seeks to enable a range of possible investment strategies that contribute to achieving net zero global emissions to be reflected (such as activist strategies where investors may purposefully invest in high carbon assets and use shareholder rights to influence transition).

The PAII aims to avoid an approach to target setting that incentivises investors to take actions that reduce their impact simply to meet a specific number in a given year. For example, divesting from a company where their engagement is generating results. For this reason portfolio level targets are defined as reference targets.

2.3.1. Types of targets and objectives

The PAII recommends the following types of targets, that should be set in line with science-based net zero pathways. It is emphasised that, depending on the structure of the portfolio and investment strategy, a wide range of plausible numeric targets may be consistent with the global net zero goal. **Investors will be expected to justify how their target is consistent with the global goal of net zero emissions, and based on science-based pathways.**

At portfolio level:

1.a) Set an initial emissions intensity reduction goal and <10-year reference target (CO_2e intensity) covering equity, fixed income, real assets in line with a net zero by 2050 pathway (see Annex 1 for discussion on sovereign bonds). At portfolio level this will include only scope 1 and 2 emissions. This goal and target informs SAA and provides a metric to monitor the effectiveness of an investment strategy (see section 2.6.2).

And/or:

1.b) Set a reference target for total absolute CO_2e emissions reductions expected to be achieved by the assets in their portfolio over <5 years that is consistent with emissions reductions needed over time according to net zero emissions pathways. This should aim to include scope 1, 2 and 3 emissions at the asset level. This may be a more effective measure to track impact than an overall intensity target as it reflects actual emissions reductions by the assets in a portfolio rather than just the effect of an investor switching investments from high to low carbon assets and sectors. This metric is particularly relevant for investors implementing an activist strategy to invest in high carbon assets and drive the transition of these assets through active ownership. However, methodologies for this metric are less well established than portfolio intensity targets.

2. Set an initial goal for allocation to climate solutions representing a % of revenues or capex from AUM, increasing over time, in line with investment trajectories based on a net zero pathway. This should be based on the EU taxonomy mitigation criteria to the extent possible. As part of Phase II, PAII will also look at methodologies that might capture relative impact of climate solutions investment (e.g. avoided emissions), to take account of the relative impact of allocation to different climate solutions, which is relevant to maximising impact through allocation to climate solutions.

At asset class level:

3. **Investors should set a 5-year goal for increasing the % AUM invested in net zero or aligned assets (see section 2.7)**. To help ensure a manageable scope, the goal should cover material sectors (see section 2.7). Increasing the performance of underlying assets towards net zero where possible should be a key means to deliver the emissions reductions to meet the portfolio level reference targets.

4. Recognising that more intensive engagement with assets will be a key part of a net zero strategy, the PAII also recommends investors set a **minimum coverage threshold to ensure at least 70, 80, or 90% of emissions in material sectors to be either net zero or aligned to a net zero pathway, OR the subject of direct or collective engagement and stewardship actions** (see 2.7). Combining the alignment and engagement metric incentivises investors either to be investing in aligned assets, or be undertaking ambitious engagement action to deliver greater alignment of assets. It recognises that engagement activity can necessarily focus on a smaller proportion of assets, if an increasing proportion of assets become aligned. As part of the consultation we are seeking views on the appropriate coverage level (70, 80 or 90%)[4] that **ensures a significant level of action** but is feasible to implement.

2.3.2. Setting targets

To set an appropriate emissions reduction reference target for their portfolio, investors should:

a) Assess the current emissions intensity of the portfolio and the allocation to climate solutions.

b) Assess global, sector and regional pathways that define the required emissions reductions and investment trajectories over time to reach global net zero by 2050 (see Box 2). Multi strategy investors may look at relevant pathways that correspond to their specific exposures to different sectors and regions, and then weight and aggregate these trajectories to provide an overall appropriate reference pathway for emissions reductions and investment in climate solutions.

Recognising the insufficient granularity of pathways for sectors and regions that are consistent with net zero emissions, in the short term, pathways to guide emission reductions targets are likely to be guided by indicative pathways rather than detailed bottom up pathways for different sub-sectors with regional differentiation. Data is particularly lacking with regards to appropriate trajectories for investment in climate solutions, particularly in the context of setting these on the basis of the newly agreed EU taxonomy. PAII is seeking to address this issue in Phase II.

PAII does not encourage an approach to setting and achieving targets which may result in perverse incentives that ultimately deliver less impact. For example, outcomes where investors that are achieving impact through active engagement, or are invested in industries that provide climate solutions but may themselves have significant direct emissions, are incentivised to divest to meet a target in a specific year. The reference target should therefore be calculated taking into account the investment strategy that is consistent with achieving net zero global emissions and used to monitor the effectiveness and adequacy of that strategy.

Intensity and solutions targets are necessary inputs for (SAA), therefore section 2.6.2 describes indicative targets that could be used for current alignment goals.

To set the five-year goal for increasing % of AUM invested in net zero or aligned assets investors should

a) assess the current proportion of assets that are already at net zero emissions, or aligned (according to assessment criteria provided in section 2.7)

b) determine the maximum extent to which they are able to adjust portfolio construction, and the speed at which they expect assets to respond to their engagement strategies or be divested due to inconsistency of activities with net zero pathways (see asset class sections).

2.3.3. Transparency and reporting

Given that the Framework allows investors to set different target levels, investors should **publish information annually** on:

- ☐ **how they consider their targets to be aligned** to a pathway to achieve global net zero emissions by 2050, and represent the **maximum ambition** possible;
- ☐ the **strategy and actions they have implemented** across all asset classes, and **performance against the objectives and targets** over time.

QUESTIONS FOR CONSULTATION:

1. Do you agree with the combination of targets that are proposed to guide investor alignment with net zero global emissions by 2050?
2. Do you agree that targets should incentivise an investors' contribution to emissions reduction in the real economy by including a main focus on the alignment of underlying assets?
3. What threshold for % of portfolio emissions in material sectors to be aligned or the subject of engagement do you consider to be feasible to achieve, while also achieving a sufficiently ambitious level of action?
4. Do you currently use a methodology for calculating:
   - avoided emissions or relative impact of investment in climate solutions
   - aggregating emissions reduced by underlying assets at the portfolio level (as referred to for target 1b)

If yes, please describe the methodology(s) that you use.

Further work in Phase II

- Clarify methodologies for absolute emissions reductions achieved by assets within a portfolio
- Review/develop methodologies that capture relative impact of climate solutions investment (e.g. avoided emissions)
- Provide more granular assessment of pathways for investment to provide more specific guidance on trajectories for this dimension of alignment and target setting.

Box 2: Pathways

Pathways is the term used to describe the emissions, technology 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 to 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 CO2 emissions by 2050, with corresponding reductions in other GHGs, such as methane. Optimally, therefore, **Paris aligned investors should utilise 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 emission 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 (or at least well below 2°C with >66% probability)**
- **Reach global net zero emissions by 2050, or soon after**
- **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 limited volume of Negative Emissions Technologies (NETs) to 2050**

The PAII strongly encourages relevant providers to address the following critical gaps in available pathways:

- Sectoral GHG budgets and pathways for key sectors in energy, transport, industry and land-use
- Key technology pathways (e.g. proportion of electric vehicles (EVs), internal combustion engines (ICEs), etc)
- Main commodity/fuel price assumptions or outputs (oil, gas, metals)
- Regional breakdown of the above (e.g. Europe, North America, Asia etc)
- Estimates of the overall investment requirement per sector, per technology, per region to achieve the net zero by 2050 pathway
- Estimates of the scope for private capital needed to drive deployment and how this might dovetail with policy design and public investment beyond simple measures like a global carbon price

2.4. Strategic Asset Allocation

Most investors have a top-level process for allocating assets across different investment opportunities, in order to achieve long-term fund objectives. This is often known as **SAA. SAA and other similar process are a key tool for the achievement and fiduciary governance of Paris alignment by asset owners**.

SAA and similar processes play two main roles:

- Defining the optimal asset allocation for the portfolio, given fund objectives and constraints; and,
- Specifying the way that the resulting asset allocation will be implemented – via choice of benchmarks and design of investment mandates.

The SAA process is about defining the range of asset class opportunities to be considered for inclusion in the portfolio, researching and modelling their investment characteristics and then, often via mean variance optimisation, selecting the combination considered most likely to achieve long-term investment objectives, subject to constraints.

By taking account of alignment objectives within this process, SAA can optimise the way assets are allocated for achieving alignment, while accounting for risk/return objectives and other constraints.

2.4.1. Steps for alignment through SAA

The Framework proposes the following actions that can be taken to help align portfolios through SAA:

- ☐ **Using scenario analysis** (see section 2.2) to ensure SAA asset class return expectations are informed by a realistic assessment of climate risks and opportunities, or to stress test potential portfolios[5]
- ☐ **Supplementing standard financial SAA objectives – such as risk and return - with objectives related to climate change:** carbon intensity (at least scope 1 and 2) and allocation to climate solutions. Supplemental metrics to capture the forward-looking low carbon transition potential of companies and other assets may also be included
- ☐ **Setting targets for these metrics** in line with a trajectory consistent with net zero emissions by 2050, taking into account specific circumstances of the investor (see section 2.3)
- ☐ **Implementing portfolio construction to include alignment objectives** alongside standard risk/return objectives
- ☐ **Considering less familiar asset classes**, for example, renewable energy infrastructure, when constructing portfolios
- ☐ **Specifying variants of asset classes that use more systematic approaches to reduce carbon intensity and increase exposure to climate solutions**. For example, replacing standard equity benchmarks with climate-tilted versions that closely track market cap weighted benchmarks, so have similar risk return characteristics, or adding a climate-solutions equity portfolio alongside other conventional equity exposures
- ☐ Where constraints to achieving alignment are identified, these **constraints should be reviewed to ensure they are strictly necessary**, and whether there is any flexibility to vary them to enable greater alignment
- ☐ **Setting investment mandates and benchmarks appropriately** to ensure the various climate-related objectives are specified in sufficient detail and the performance objectives clearly defined
- ☐ **Monitoring achievement of alignment objectives** including portfolio carbon intensity and allocation to climate solutions

The following sections provide further details on implementing the above steps, and discussion of challenges for implementing alignment through SAA.

2.4.2. Metrics for alignment

The PAII suggests that the two most important metrics are:

- **Carbon emissions intensity (scope 1 and 2)**[6] – CO_2e/$m revenues or CO_2e/$m invested
- **Climate solutions allocation as % of portfolio** (EU Taxonomy standards are the most relevant here, and capture low carbon activities and current best in class transition activities)

While it is essential to use metrics like these to assess overall current performance, these metrics are only a current snapshot. SAA is about achieving long-term objectives. So, it is also important to make use of more future oriented metrics which capture changes that are happening at company, sector or market level which reflect the likely future trajectory of emissions and climate solutions.

Supplemental forward-looking metrics include:

- Exposure to fossil fuel reserves[7]
- % of portfolio with net zero targets
- Aggregate management indicators score
- Levels of capex relating to EU Taxonomy activities

However, **the current coverage, consistency and availability of these additional metrics make it challenging to use to specify asset allocation across a whole portfolio.**

In setting targets against these metrics, the PAII recognises that **there is no one trajectory appropriate for all investors**. As described in section 2.3.2 on target setting, the appropriate pathway will depend on the sectoral and regional exposure of a portfolio. For a large diversified growth portfolio a simple 'straight line' approach may be a reasonable reference. This approximates to around a 19% reduction in 2020 compared to the current benchmark for those already taking action to be on an aligned pathway now[8], or reductions of 7.6% per year.[9]

For increasing investment in climate solutions, the PAII working group estimated that in 2015 around 3% of global equities may have complied with EU Taxonomy climate mitigation standards.[10] In 2050, a ballpark estimate suggests 25% of global equities will need to do so. On a straight-line trajectory, in 2020 around 6% will need to be EU Taxonomy compliant and growing over time. However, further work is necessary to more clearly specify the ultimate share of equity or credit portfolios that will be invested in climate solutions in a 1.5°C world, both in terms of greater granularity needed in expected pathways for different technologies and investment in a net zero pathway, and also translating this pathway into estimated revenues in line with the taxonomy criteria.

Finally, it is important to recognise that **if an individual investor, or even a large group of investors, sets objectives that are consistent with Paris goals, this does not mean that the investment system as a whole becomes aligned**. As a simplistic illustration, if 50% of investors reduce their portfolio emissions intensity by 20% in the next 10 years, and the rest of investors do not reduce carbon emissions intensity at all, then the total reduction is only 10%. This logic suggests that those who are able to, should not simply do their 'fair' share, but set more demanding targets.

For the reasons given above, rather than aligning with a specific net zero emissions trajectory alone, **investors should aim to do the maximum they can to reduce their carbon exposures and increase allocations to climate solutions, subject to their fiduciary and regulatory constraints**.

Therefore, recognising the diversity of funds and strategies, this framework suggests funds should set their own targets against these metrics and set out how the target is consistent with net zero pathways and represents the maximum contribution possible for the investor.

2.4.3. Optimisation

The PAII recommends **optimising for achievement of these alignment metrics in portfolio construction**, alongside traditional risk/return and other indicators. For example, many investors use a 'mean variance optimisation' process to manage their SAA. This requires estimates of:

- Expected returns
- Volatility of returns
- Covariance of returns

To implement mean variance optimisation with Paris alignment objectives, two additional ingredients are relevant:

- Carbon intensity
- Percentage allocated to climate solutions (EU Taxonomy)

This allows an investor to identify portfolios that maximise the two Paris alignment objectives, subject to achieving the same (or better) portfolio risk-return[11]. In other words, a fiduciary-compliant portfolio with the minimum carbon intensity and maximum percentage allocated to climate solutions. It is, however, unwise to rely solely on optimisation in investment decision-making. 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 technologies and sectors, and not over-exposed to the risk of policy reversals.

2.4.4. Asset Class Specification

The extent to which SAA-driven portfolio shifts are possible are somewhat limited by conventional asset class benchmarks which each contain a static mix of high carbon and climate solutions. Standard market cap benchmarks are often used by SAA largely for convenience. Significantly better results can be achieved by changing the specification of asset classes[12].

Examples of **recommended variants include:**

Tilted indices. Several IIGCC asset owners have replaced their standard equity benchmarks with climate-tilted versions that closely track market cap weighted benchmarks, so have similar risk return characteristics.

Custom benchmarks. Tilted versions of indices can also be used as benchmarks for active equity and credit mandates. This forces active managers to shift their active portfolios in a more Paris aligned direction.

Climate-focused variants. It is also possible to specify climate-specific asset class variants as part of the overall asset class exposure. For example, adding a climate solutions equity portfolio alongside other conventional equity exposures, or adding a green bond portfolio alongside standard investment grade credit.

The climate enhanced optimisation process will allocate heavily to these asset classes, as long as their risk-adjusted returns are also sufficiently attractive. It is, therefore, vital that due care is taken to ensure that these climate-enhanced asset class variants have forecasts for expected returns, volatility and covariance, that are generated in a manner consistent with other asset classes.

2.4.5. Challenges for implementing alignment through SAA

The recommendations in the Framework are most applicable to an asset owner with substantial investment discretion, and for whom achieving growth is still the primary objective. However, many pension funds and life assurance portfolios are now very mature and are giving increasing weight to matching their remaining liabilities with buy and maintain portfolios of fixed income securities and other liability-hedging strategies. Similar issues apply to certain types of fund such as Defined Contribution schemes. These portfolios tend to only allow mainstream liquid assets, run with very tight cost constraints, and have rather more rigid investment structures with multiple, risk-tiered 'lifecycle' options. It can be difficult to make dynamic changes to these portfolios.

The scope to align these portfolios with climate objectives is smaller than for growth portfolios However, in most cases there is some kind of asset allocation process. This should be informed by integrating climate risks/opportunities into their risk/return expectations as a first step. It may be possible over time, to make adjustments to components (for example, replacing market cap weighted equities with low cost climate tilted variants) or add low cost climate solutions components. Some DC funds have switched their core default passive equity exposure to lower carbon variants of standard market-cap weighted indices, so progress is possible. New schemes in particular should consider incorporating climate objectives into default portfolios.

More generally, while wealthy individuals and environmental philanthropies may be able to maximise climate objectives without limit, most investors will only be able to do so subject to constraints. This applies to pension funds with binding fiduciary constraints, insurers with regulatory constraints such as solvency capital requirements, and asset managers with mandate constraints.

Typically, the core constraint investors face is that the pursuit of climate objectives cannot reduce expected risk-adjusted investment returns relative to other alternatives. But there may also be other important constraints, for example, liquidity constraints or solvency capital charges may limit exposure to renewable energy infrastructure investments.

It is also possible that introducing climate change objectives may marginally increase investment governance costs, for example, as a result of new measurement or reporting requirements. While there may be gains in terms of portfolio resilience, this may be a constraint for some low cost investors.

The SAA process is in itself, therefore, an important tool to provide the fiduciary governance allowing investors to identify the point of maximum climate ambition, subject to their various constraints.

However, some constraints may create barriers to alignment (e.g. no illiquid assets). **Investors committed to Paris alignment should, therefore, explore whether the constraints are adopted are strictly necessary**, and whether there is any flexibility to vary them to enable greater alignment. Clearly, where there is a strong investment rationale for imposing constraints, fiduciary investors are required to respect them.

QUESTIONS FOR CONSULTATION

5. For funds that do not use Strategic Asset Allocation, are the actions described transferable to your equivalent process (e.g. Total Portfolio Approach)?
6. If not, what relevant alternative approaches can be applied to support alignment through that process, that should be referenced in this framework?
7. Do you agree that investors should aim to increase the contribution towards decarbonisation and investment in climate solutions to the maximum extent possible even if that constitutes more than a 'fair' share distributed among investors?

2.5. Asset Class Alignment

Governance, portfolio wide targets and SAA set out in the previous sections represent the top down actions to guide alignment and set direction. However, the key driver of achieving net zero and driving real economy impact is the alignment of assets to net zero within asset class portfolios. The following sections therefore provide recommendations with regard to assessing alignment of assets within four different asset classes, and how to transition a portfolio towards greater alignment and deliver impact over time.

Across the four asset classes considered, the Framework broadly recommends following a consistent process:

- Set the scope, to confirm which assets should be considered within scope for alignment action
- Assess the current and forward looking alignment of these assets (existing or new)
- Implement a strategy to increase alignment of assets and your exposure to net zero or aligned assets, and climate solutions, over time

The PAII recommends using asset class targets, criteria for assessing alignment of assets, and available methodologies that reflect these criteria, as summarised in the table below. The subsequent sections describe these criteria and methodologies in more detail and the key components of a strategy to increase alignment of assets and investment in climate solutions, as well as issues and challenges for each of the four asset classes in the Framework.

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 target for % in AUM in net zero or aligned assets ▸ Set target for increase % climate solutions revenues/AUM ▸ Set goal for coverage of assets aligned or under active engagement [70, 80 or 90%] portfolio emissions	
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, renewables) ▸ Other national and international policy positions + allocation to green or SDG climate bonds	▸ Current emissions intensity performance (scope 1, 2, and material scope 3) ▸ A long term 2050 goal consistent with global net zero; ▸ Short & medium term emissions reduction targets; ▸ A credible investment plan for achieving targets; ▸ Revenues and capex consistent with achieving targets; ▸ Clear governance responsibilities for targets/transition; ▸ Executive remuneration linked to delivering targets/investment plan; ▸ Disclosure of scope 1, 2 and material scope 3 emissions + 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	Transition Pathways Initiative; Science Based Targets Initiative; Climate Action 100 benchmark (forthcoming)	Carbon Risk Real Estate Monitor (CRREM)

2.6 Asset Class Alignment: Sovereign Bonds

Assessment of assets

- ☐ 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

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, renewables)
- 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 green or SDG climate bonds, if possible

Implementation

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, the Investor Agenda etc.
- ☐ Engage with issuers, investment banks and development agencies to increase issuance of Paris aligned green and SDG climate bonds

C. Selective divestment:

- ☐ Consider exclusion of continued poor performers from portfolios

2.6.1. Scope and Objectives

The Framework for this asset class covers **issuers that are national governments as well as regional and municipal authorities that issue bonds**. Where the issuer is a publicly (majority) owned company, investors should follow the Framework for corporate fixed income.

For an investor to have a portfolio that is 100% aligned to the net zero goal, all national and municipal issuers in the portfolio would need to be on track to reduce their emissions in line with net zero global emissions by 2050. Given the limited number of sovereigns and municipalities already on track to meet this goal, it is unlikely that most investors would be able to invest in bonds from this small set of issuers alone. Therefore, **the Framework proposes that investors should assess the performance of issuers against a set of criteria relating to alignment and increase allocation towards higher performing issuers to the maximum extent possible.** This will improve the relative alignment of the portfolio towards global net zero emissions and incentivise issuers to improve performance to improve access to capital.

The Framework also recognises the role of verified green or SDG climate linked bonds within a portfolio as a measure of investment in climate solutions and that the Framework should incentivise investment and growth in this aspect of the market.

2.6.2. Undertaking alignment: Assessment

The recommended approach to tilt portfolios is to **score sovereign and municipal bonds against a set of climate-related indicators that are material to current and future performance in relation to alignment**, in order to allocate capital towards higher performing issuers.

To measure alignment for sovereign issuers and provide a relative assessment of performance, it is recommended that:

- ☐ Assessment of a sovereign or municipalities' performance should take into account all **emissions associated with the territory on a production basis**
- ☐ Emissions measurement should be **normalised by GDP or per capita**
- ☐ Assessment of performance should **take account of the differentiated pathways towards net zero that can be expected from countries at different levels of economic development**[13]
- ☐ Assessment of climate performance should **include both current performance and forward-looking expected performance indicators.** The most relevant indicators identified to score climate performance towards alignment are:
  - **Past and future GHG performance:**
    - Past trend of GHG emissions;
    - Current level of GHG emissions compared 1.5°C pathway;
    - GHG emissions reduction targets
  - **Past and future performance on key policies/ sectors for decarbonisation:**
    - 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
  - **Other Policy measures**
    - National Policy Strength towards net zero global emissions (e.g. low carbon transport; fossil fuel subsidy phase out; carbon pricing; decarbonisation of SOEs)
    - International policy positions

Methodologies for assessing assets' alignment

The PAII considers the current leading methodology for such a scoring framework is the Germanwatch Climate Change Performance Index.[14] Alternative methodologies should meet the key features set out above in terms of emissions in scope, differentiation of pathways, and current and forward-looking alignment criteria.

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[15] and CDP city ranking.[16] 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 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

2.6.3. Undertaking alignment: Implementation

To align a sovereign bond portfolio towards net zero global emissions, an investor should:

- ☐ **Tilt portfolios towards higher performing issuers** based on current and future climate performance indicators set out above, to the maximum extent possible, at a minimum exceeding* the weighted average benchmark score for climate performance
- ☐ **Exemption from inclusion in re-allocating capital can be made for domestic sovereign issuance held for liability matching purposes**. The timing and pace of reweighting portfolios towards higher performing issuers may also reflect timescales on which other liability matching bonds mature
- ☐ 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. Depending on the transition of the universe of issuers towards the global net zero goal, this would optimally evolve to be a reduction in emissions intensity per capita or GDP per $AUM compared against historic levels, in line with a global emissions trajectory towards net zero by 2050, for example, a 55% reduction in global emissions by 2030 against 2018 levels[17]
- ☐ Maintain an **appropriate proportion of exposure between Developed Market and Emerging Market**, therefore, taking account of the differentiated pathways towards net zero that can be expected from countries at different levels of economic development in setting targets for absolute and relative emissions reduction
- ☐ **Increase allocation to green (mitigation) or SDG climate linked bonds if possible**, as part of overall portfolio objective to increase allocation to climate solutions

*PAII recognises this is a minimum threshold to be considered to be aligning a sovereign portfolio. As part of the portfolio testing phase, PAII will seek to assess whether there is a % increase in average climate score that could be incorporated into the Framework and set a more ambitious threshold for alignment.

2.6.4. Engagement

As part of a net zero strategy, **investors should undertake active engagement to support improved performance of issuers, and increase availability of robust performance assessments to underpin alignment**. Investors should engage with sovereign and municipal issuers on the basis of the performance metrics listed above, to use investor influence to encourage action and improve climate performance towards net zero over time. This should include engagement with domestic issuers, even if they were excluded from re-weighting given their liability matching purpose. Recommended practices for Paris aligned engagement include:

- ☐ **Active direct engagement with sovereigns to which they have largest exposure or that have the highest impact on global emissions that do not score highly across the scoring criteria.** Engagement should focus on issuers improving performance in relation to indicators in the scoring criteria
- ☐ Investors should, to the extent possible, **participate in collective engagement both directly with governments, or indirectly through networks such as IIGCC, the Investor Agenda, etc.**
- ☐ **Engagement with index providers and data/service providers** to request indices, benchmarks and data/performance assessments based on the proposed scoring system of the Framework
- ☐ Engage with issuers, investment banks and development agencies to actively seek to increase **issuance of Paris aligned green and SDG climate bonds**, in order to provide investors with greater availability of these instruments over time.

2.7. Asset Class Alignment: 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: a) achieving net zero b) aligned c) transition potential d) 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:

- Current emissions intensity performance (scope 1, 2 and material scope 3)
- A long term 2050 goal consistent with global net zero;
- Short and medium term emissions reduction targets;
- A credible investment plan for achieving targets;
- Revenues and capex consistent with achieving targets;
- Clear governance responsibilities for targets/transition;
- Executive remuneration linked to delivering targets/investment plan;
- Disclosure of scope 1, 2 and material scope 3 emissions

T. Increase % AUM in net zero or aligned 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 [70, 80 or 90%] portfolio emissions (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/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

2.7.1. Scope and Objectives

The Framework for this asset class covers listed equity and corporate fixed income assets in a portfolio. As these asset classes draw on similar underlying assets (companies and their cashflow) the Framework for alignment is substantially similar for both asset classes. However, some specifics with regards to corporate fixed income are noted at the end of the section.

For an investor to have a portfolio that is already fully aligned to the net zero goal, all companies in which equities or securities are held would already need to have net zero emissions, or be on track to reduce their emissions in line with net zero global emissions by 2050. An aligned portfolio would also have a growing share of equities or securities that provide climate solutions, scaling up in line with the investment needs associated with a net zero pathway. Currently, however, there are few companies that are demonstrably aligned to net zero, and only a narrow set of investments in climate solutions are possible. It is, therefore, unlikely that institutional investors would be able to achieve a portfolio that meets their investment goals while also being fully aligned to net zero at this moment in time.

Given this challenge, **the Framework proposes that investors should assess the alignment of assets towards global net zero emissions, and their contribution to climate solutions.** Investors should aim to increase the percentage of assets that are achieving net zero or aligned to the 2050 goal, and increase exposure to climate solutions. Investors should use portfolio construction to increase allocation to aligned companies, which should incentivise companies to improve performance to ensure access to capital. Where companies are not aligned to net zero, investors should engage with companies to improve alignment performance over time.

Investors should, therefore, aim for:

- ☐ **At least 70, 80 or 90%[18] of AUM in material sectors to be either net zero, aligned, or the subject of direct or collective engagement and stewardship actions**
- ☐ **Increasing the % of assets that are net zero or aligned over time**
- ☐ **Increasing the % revenues from climate solutions from their assets under management**

Similarly, as with other asset classes, current performance in emissions reduction is insufficient on its own to judge alignment and the likelihood of decarbonising in line with a net zero trajectory by 2050. Therefore, the PAII considers that **assessment of alignment of assets should factor in both current and future expected performance, and the likelihood of future alignment**.

The Framework also seeks to promote investment strategies that **encourage emissions reduction at the company level to achieve portfolio alignment** rather than relying on divestment or investing in a narrow range of sectors to achieve a more aligned portfolio.

The PAII notes that for many asset owners and asset managers listed equity and corporate fixed income portfolios can contain thousands of individual assets. This requires investors to collect information, assess the alignment of, and engage with, a large volume of assets. To ensure a proportional and practical, yet robust, approach **the scope for alignment of a portfolio may be limited to (and should prioritise) assets in sectors that are most material to achieving global mitigation goals**. As a guide, the PAII proposes 'material' sectors to be those in NACE code categories: A-H and J-L.[19, 20]

The Framework should be widely applicable across Listed Equity and Corporate Fixed Income investment portfolios but the PAII notes there are some credit instruments for which there are significant challenges. In particular these include money market and short duration products, where the investment focus is high liquidity and fixed maturity funds. Furthermore, individual issuers that are in bankruptcy or liquidation processes are less likely to be focusing on climate change strategy at a time when the management focus is capital recovery.

2.7.2. Undertaking alignment: Assessment

The PAII recommends that investors **assess material companies' current decarbonisation performance and forward-looking alignment against a credible reference pathway** to determine if a company is:

- Achieving net zero
- Aligned to a net zero pathway
- Has potential to transition
- Is not aligned or has low potential to transition

The PAII has identified a set of criteria recommended to assess a company's achievement of net zero, alignment, or transition potential.

1. **Current emissions intensity[21] performance consistent with global net zero emissions by 2050 (scope 1, 2 and material scope 3)**
2. **A long term, 2050 goal consistent with global net zero**
3. **Short and medium term emissions reduction targets consistent with that goal**
4. **A credible investment plan or business model for achieving targets**
5. **Revenues and capital expenditure consistent with achieving targets**
6. **Clear governance responsibilities for targets and transitioning**
7. **Executive remuneration linked to delivering targets and investment plans**
8. **Disclosure and reporting of scope 1, 2 and material scope 3 emissions**

Over time it is expected that additional sector specific indicators may be added or used to specify how each of the above items will be delivered.

To assess alignment and credibility of transition targets and plans, the PAII recommends that investors use company disclosures, taking into account third party analysis or, ideally, verification by an independent third party, to the extent possible.

Companies achieving net zero would already 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.

The **recommended minimum threshold for a company to be considered aligned to a net zero pathway** is:

- Adequate performance under criterion 1 (in line with targets set, and investment plans, over time); and
- Meeting criteria 2-8

The assessment of adequacy of targets for criterion 3 should consider consistency with net zero emissions pathways and take into account sectoral and regional differentiation.

The **recommended minimum threshold for a company to be considered to have "potential to transition"** is[22]:

- A forward-looking emissions reduction goal or target[23] (partial criteria 2 or 3)
- A policy relating to taking action on company emissions (partial criteria 4)
- Disclosure of at least scope 1 and 2 emissions data (partial criteria 7)

The 'potential to transition' classification is important to identify those companies that are likely to make positive progress towards alignment and where continued investment and engagement of investors is appropriate. Although this is a low minimum threshold for classification, for companies to remain in the "potential for transition" category they would have to improve against the key criteria (1-7) over time, at least within two years, and progress to be sufficiently rapid to align to necessary emissions reduction or technology pathways.[24] If unable to meet this requirement, such companies would be downgraded to the "not aligned or not transitioning" category.

In practice, net zero pathways are highly company specific and current publicly available pathways are not sufficiently ambitious or granular to ensure a robust assessment and verification of alignment of companies to net zero pathways (see Box 2 on pathways). The PAII also notes the lack of **robust disclosure of data by many companies, particularly in emerging markets, is a hindrance to assessing alignment and monitoring performance**. However, existing methodologies already cover a substantial proportion of the highest emitting companies.

In the short term, therefore, the PAII recommends that **action to assess alignment and construct portfolios on this basis may be limited to the very high impact sectors[25] and large companies** where data and assessments by providers are more common. This adds to the case for positive inclusion approaches (see below), which reward disclosure as the first criteria in any assessment, thus incentivising companies to disclose information relevant to the alignment criteria.

Alongside assessing alignment with decarbonisation trajectories, **investors should assess investment in climate solutions**. This assessment should, to the extent possible, **use the EU taxonomy mitigation criteria, and assess revenues from companies associated with activities compliant with these criteria**. Revenues from both the category of 'substantial mitigation contribution' as well as 'enabling activities' should be included. Capex may also be utilised where relevant.

Methodologies for assessing assets' alignment: listed equity and corporate fixed income

The listed equity and corporate fixed income working group reviewed a range of available methodologies relevant to measuring the alignment of listed equity and corporate fixed income portfolios using the criteria in Box 1. It was found that no methodology currently provides a comprehensive basis to assess all assets against sufficiently granular net zero pathways.

The PAII, therefore, highlights a number of key features of preferred methodologies to assess alignment. These are methodologies that:

- **Base the assessment of alignment on science-based pathways consistent with net zero global emissions by 2050**
- **Reflect differentiated pathways by region and sector e.g. the Sectoral Decarbonisation Approach**
- **Assess scope 1, 2, and material scope 3 emissions**
- **Assess alignment including current performance (emissions reduction) and future targets and also specific investment plans and strategies for transitioning an asset**
- **Include factors which affect the likelihood of alignment e.g. governance, remuneration etc**
- **Utilise reported information by companies wherever possible, and incorporate disclosure criteria in the assessment itself**

The PAII considers that the most relevant methodologies available to inform such an assessment are those that are based on the Sectoral Decarbonisation Approach and include assessment of complementary management criteria. Current methodologies that do so include the Transition Pathway Initiative carbon performance and management quality indictors and the forthcoming Climate Action 100+ (CA100+) Benchmarking framework. Science Based Targets Initiative is also relevant as a leading methodology for assessing a company's short or medium-term targets (criterion 3).

The recommended methodologies are those that most clearly meet the features described above and also the principles set out in Box 1, particularly relating to accessibility and practicality. The PAII working group reviewed a number of different methodologies during its work. We note that there are other providers which also provide a forward-looking assessment of companies, for example ISS, Moody's Carbon Transition Assessment, and the PACTA tool.

When considering providers, investors should seek methodologies that meet as many of the key features set out above as possible. We encourage methodology providers to develop their products in line with these features and to ensure they are practical for investors to use as tools in asset assessment and portfolio construction. PAII would be interested to review and recommend further methodologies that meet these expectations as part of this framework over time.

The PAII also notes a range of methodologies and current work focussed on assessing the alignment of a portfolio or asset with an implied temperature score. Assessments that provide an aggregation of company 'temperature' scores at a portfolio level is an attractive option to express portfolio alignment. However, it is particularly challenging to express the nuance of alignment credibility in a single temperature metric, and given the limitations of underlying data (pathways, emissions disclosure), there is a risk of being misleading until these challenges are resolved.

At a minimum, any version of this methodology would need to meet the criteria set out above to be robust, and ensure the appropriate factors (such as current and future performance, coverage of scope 3 emissions, and likelihood of alignment) are accounted for. In the short term, therefore, any single numeric assessment may not encourage the most effective investment strategies or accurately reflect the actual alignment or impact of a portfolio towards the goal of net zero global emissions.

2.7.3. Undertaking alignment: Implementation

Investors should implement **a strategy to improve the alignment of a portfolio, increasing the proportion of AUM invested in aligned and transitioning companies over time, and increasing % AUM allocated to climate solutions.**

The working group identified three key elements to an alignment strategy to influence and incentivise companies to decarbonise while achieving alignment of the portfolio.

A. Portfolio construction based on alignment and solutions assessment, selecting or positively weighting towards companies with higher or best in class alignment performance, and increasing allocation to climate solutions.

B. Criteria based, timebound, escalating engagement/stewardship actions. These engagement and stewardship actions should focus on improving company performance towards alignment against the 8 criteria for alignment above.

C. Selective divestment where it is relevant to exclude companies based on their transition risk, failure to respond to engagement or where their primary activity is no longer considered permissible within a credible pathway towards global net zero emissions.

A. Portfolio construction

Positive screening can be used to more highly weight investments towards companies with better performance in alignment (both for decarbonisation and increasing investment in climate solutions). Poor performers can be underweighted. Weighting according to best in class for a sector should be considered to incentivise companies to improve performance, where transition is achievable. Simply **shifting investment away from sectors that are material to achieving transition to those that are not to achieve portfolio alignment goals should not be the primary strategy.**

Large scale investor action in this direction sends a clear market signal regarding the availability of capital for higher performing companies and the potential for increased valuation and lower cost of capital going forward. It also incentivises poorly performing companies to improve their alignment to access capital from Paris aligned investors and products. The key approaches to portfolio construction identified by the PAII are:

- ☐ For **existing active assets, overweighting good performers and climate solutions and underweighting poor performers** (not aligned or making positive progress) is relevant. This should be considered alongside an engagement strategy to take account of progress made against engagement milestones to inform weighting decisions
- ☐ For **new active assets, apply screening criteria as a part of investment analysis for inclusion based on alignment or potential for transition**
- ☐ **Specialist benchmarks, products or funds focussed on alignment or climate solutions** may also be relevant instruments to utilise. The PAII recommends a focus on benchmark construction that takes into account the alignment and transition potential of underlying assets as well as current emissions intensity, and reflects regional and sectoral differentiation
- ☐ For **passive assets, apply an index that utilises positive weightings based on alignment criteria and a climate solutions revenue metric**.

Box 3: EU Paris Aligned Benchmark

The PAII is recommending use of benchmarks and indices that reflect company performance against the set of alignment and transition criteria. The EU has set out a Paris Aligned Benchmark, where the benchmark construction currently expresses “Paris Alignment” as a very ambitious reduction relative to the market weighted benchmark (-50% GHG emissions intensity).

While the PAII wants to incentivize allocation of capital to assets whose emissions are declining over time and to climate solutions, it considers this may be more effectively achieved by maintaining investment in order to maximise real world impacts by driving reductions in companies that need to transition, rather than initially excluding issuers from a benchmark to achieve an immediate highly ambitious reduction for an individual portfolio. The limitation of focusing on a singular 7% year-on-year carbon footprint reduction is that it also does not take into account benchmarks with regional or geographic exposures that are relevant to an investor’s assets and may necessarily require different emissions reduction pathways.

Therefore, the PAII recommends a focus on benchmark construction that takes account of the alignment and transition potential of underlying assets as well as current emissions intensity and reductions over time, and reflects regional and sectoral differentiation. The PAII would encourage the European Commission to reflect the relevance of such products for promoting sustainable finance in the EU in its further implementation of its sustainable finance strategy.

B. Stewardship

The nature of alignment and transitioning assets and portfolios is dynamic. Investors will be making decisions based on company commitments and the action plans and governance that underpin them. Engagement and stewardship activities are a key component of a Paris aligned investment strategy, to deliver emissions reduction in the real economy by engaging with the companies in their portfolio so as to encourage them to set out and implement their alignment plans on an ongoing basis. Engaging with companies to promote alignment and implementing a voting policy which reinforces this agenda are both important. In particular, for existing assets, an 'engagement first' strategy may be preferable in terms of maximising potential impact while limiting the disadvantages to portfolio diversification etc. through divestment.

Engagement is a resource intensive activity so some degree of prioritisation is required. It is unrealistic to expect investors to individually engage with all companies in a portfolio. The PAII therefore recommends:

- ☐ **Investors prioritise engagement based on weighted carbon intensity** to ensure they are targeting companies where they have greatest exposure and influence, and those that are most material to the global transition.
- ☐ Engagement should be undertaken, directly or through collective initiatives, with companies that are not aligned or transitioning with sufficient progress against milestones. As set out in section 2.3.1, **investors should aim for 70, 80 or 90% of portfolio emissions in material sectors to be either aligned or the subject of direct or collective engagement and stewardship actions**.

Elements of a Paris aligned stewardship approach include:

- ☐ Developing **an engagement strategy with clear milestones and escalation process with a feedback loop to investment, weighting and divestment decisions**
  - The strategy may have objectives for companies staged over longer timeframes providing progress is being made in the short term, particularly where companies are starting from a low baseline.
  - Stepwise milestones against criteria from disclosure, through governance, target setting and finally detailed investment plans are relevant.
  - It is also relevant to have accelerated timeframes and expectations for the sectors that have a greater impact in achieving the transition to global net zero emissions.
- ☐ **Undertaking engagement with companies to improve performance against the assessment criteria set out above**, in line with milestones.
- ☐ **Informing companies of expectations in relation to criteria and voting intentions** (below) in advance of votes being taken, and reasons for the vote after it has taken place
- ☐ **Joining collective engagement initiatives**, such as CA100+, and play an active role in engagement activities

As part of a Paris aligned voting approach, investors should consider:

- ☐ **Implementing an escalation approach, use of the full range of routine AGM routes** (as applicable by jurisdiction) if a company does not achieve the alignment criteria within particular time frames.
- ☐ Where companies have set targets and set out a transition plan, **voting against the board; remuneration policy; annual report and accounts (as applicable by jurisdiction) if the company is not on track to achieve its plan and targets** for a period of two or more years.
- ☐ **Voting against Mergers & Acquisitions (M&A) unless the post M&A company meets or can be expected to meet the criteria** within a reasonable period.
- ☐ **Ensuring they or their managers have voting rights** to be able to undertake the above actions.
- ☐ **Co-filing and/or supporting shareholder resolutions in line with the criteria.**

For listed equities, voting is a key part of stewardship. As part of a Paris aligned stewardship approach, it is expected that an asset manager **publishes a voting policy that aligns to this framework**, voting records, and rationale for deviating from policy, and be clear how assets have been managed in alignment with clients' stewardship and investment policies.

Paris aligned asset owners should adopt the same approach, or, where voting rights are transferred to managers, select managers (passive or active) who undertake engagement and stewardship in line with this approach.

C. Divestment

The PAII recognises that divestment may be relevant as part of the value set of the asset owner but an **exclusion and divestment policy is not recommended as the primary strategy to align a portfolio**. However, the PAII considers it to be relevant to consider divestment in the following circumstances:

- **Selective divestment as a consequence of climate financial risk assessment**. As set out in section 2.2, as an initial basis for alignment, investors should conduct climate financial risk assessment. On the basis of this assessment investors may choose to exclude high emitting companies that represent an unacceptable financial risk based on scenario analysis.
- **Selective divestment as a consequence of escalation following engagement**, given the market signal that this sends to companies that can then influence their behaviour.
- It may be relevant to **identify exclusions over different timeframes for particular companies whose primary activity is no longer considered permissible within a credible pathway towards global net zero emissions**. Examples cited by the working group include thermal coal generation in developed markets, production from oil or tar sands, exploration and development of new oil fields, or certain types of infrastructure with high lock-in potential. The PAII will look to develop more detailed guidance or recommendations on timeframes and thresholds for activities and sectors that are permissible within net zero pathways.

Where divestment has contributed to portfolio emissions reductions, investors should report on the rationale for these divestments in relation to the circumstances above.

2.7.4. Corporate Fixed Income: Specific considerations

The PAII considered listed equities and corporate fixed income together because both are based on corporate issuers and the value of the instrument is a function of the cashflows generated by the issuer. Corporate fixed income portfolios have comparable underlying assets to listed equity, therefore, the approach to assessment of assets should be equivalent. Several aspects of implementation, for example, positive weighting and weighted indices can also be used in a similar way.

However, there are also differences in the operation and rights of corporate fixed income instruments that need to be reflected. The following specific differences in assessment and implementation strategy are relevant:

- 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.
- Levers for engagement and stewardship are more limited and nascent for corporate fixed income. The PAII considers engagement to be a relevant tool for corporate fixed income. However, **engagement should be done outside the issuance process and be a key part of the research informing investment strategy and decisions**.
- Corporate fixed income instruments have a defined life and issuers commonly return to the market to increase borrowing, refinance maturing debt, minimise the cost of debt capital, and manage interest rate risk. Not refinancing or investing in new issuance is a very powerful lever for directly affecting a company's ability to finance its activities. Therefore, **corporate fixed income investors should consider setting clear and increasing thresholds over time for issuers' level of alignment/transition performance for new issuance or refinancing.**
- The corporate fixed income asset class has seen the development of green bonds which are a specific set of instruments linked to the use of proceeds. Green bonds that are based on verifiable forward-looking use of proceeds for climate mitigation activities provide a complement to the overall position of the parent company issuer, and may also be included as investment in climate solutions.
- Two specific constraints for implementing the framework in relation to corporate fixed income were also identified. Firstly, disclosure of scope 1, 2, and 3 emissions is significantly weaker for corporate fixed income than listed equities, which may impact the ability of investors to assess company performance. Secondly, benchmarks that incorporate alignment metrics are less common in fixed income. **Further development of benchmarks, particularly for High Yield, Emerging Market Credit where there is lower read across to listed equity benchmarks would be particularly useful.**

The PAII also notes some emerging instruments that may also be relevant to alignment in fixed income portfolios:

a) Transition Bonds

b) KPI-linked sustainability bonds

Increasing investment and supporting development of the market for these instruments may be a relevant component of a net zero investment strategy where they have: robust criteria and standards specifically linked (by KPI, or use of proceeds) to a companies' alignment with net zero global emissions, and increasing investment in, and supporting development of, the market for these instruments. However, further work is needed to identify clear standards for these products. The PAII is keen to continue engagement with initiatives working on the development of these instruments and definitions, and consider how best to incorporate into the Framework.

2.7.5. Policy advocacy and market engagement

In considering alignment of listed equity and corporate fixed income, a number of barriers to undertaking alignment emerged that would benefit from action by policy makers, regulators or other stakeholders. Engagement with these stakeholders should be a core part of an investor's strategy to align portfolios. Key asks identified during the work of the PAII include:

- ☐ **Improving the availability of more granular sector and regional pathways towards net zero global emissions by 2050**. Governments and public institutions, such as the IEA, play a key role in promoting and providing these pathways.
- ☐ **Improving disclosure of information relevant to assessing alignment and investment in climate solutions**. Data availability is a particular challenge for corporate fixed income. Key data includes:
  - Reporting of scope 1, 2 and material 3 emissions
  - Reporting of performance against emissions reductions targets or measures towards those targets
  - Disclosure of revenues associated with EU taxonomy compliant activities (or equivalent) on a global scale
  - Disclosure of information relating to additional assessment criteria:
    - Long term objectives, and short/medium term emissions reduction targets
    - Investment plans for delivering targets
    - Governance and remuneration in relation to climate policy and targets
  - Reporting is required at parent company and subsidiary level, at a minimum in all sectors that are considered material to PAII

IIGCC responded to the consultation on the revisions to the EU Non-Financial Reporting Directive, which is being taken forward by the European Commission, to propose these reporting requirements be considered:

- ☐ **Increasing shareholder rights**. Given the importance placed on the role of stewardship in driving decarbonisation in companies, the ability for investors to utilise the levers they have as shareholders is key. As different regulation affects the ability of investors to use voting in different jurisdictions, it will also be important for investors to engage with the policy makers to align and increase shareholder rights in various jurisdictions.
- ☐ Given the limited coverage, availability and rigour of methodologies and products (benchmarks, indices, funds) based on the alignment criteria, there is also an opportunity **for data and service providers (credit rating agencies; advisory services; methodology and data providers) to offer assessments and products based on alignment criteria, and investors should engage with their service providers to encourage the offering of such products.**

More generally it is critical for governments to provide the policy frameworks that drive companies to achieve net zero. This includes sectoral policies that clarify the transition pathway per sector in line with economy-wide net zero emissions, including a timetable for phasing out fossil fuel subsidies and key technology changes, as well as enhanced cross-economy measures such as a strengthened carbon pricing and market-based measures. Investors should advocate for rapid implementation of these policies at national, regional and international level.

QUESTIONS FOR CONSULTATION:

8. Given the large number of assets in a portfolio, and the need to provide a practicable approach for investors, are high impact NACE (and associated BICS/GICS) codes the best option to define the relevant scope for alignment for listed equity and corporate fixed income portfolios?

   If not, what alternatives could be used?

9. Do you agree that divestment should not be the standalone strategy for achieving the portfolio emissions reduction target, and increasing % of aligned assets?
10. Do you agree with the thresholds for a company to be considered net zero; aligned to a net zero pathway; transition potential?
11. Are there other methodologies in the market that provide robust assessments of one or more of the criteria for assessing alignment that are tools that can be recommended for investors using this framework?

Further work in Phase II

- Develop specific voting and escalation approaches for laggards and leaders against a set of criteria
- Engage with proxy advisors to ensure integration of climate change into standard guidance over time and, in the interim, development of an 'off the shelf' Paris aligned voting service
- Develop more detailed guidance or recommendations on timeframes and thresholds for activities and sectors that are permissible within net zero pathways
- Engage with initiatives working on development of transition bonds and other relevant instruments to consider whether these can be incorporated into the Framework

2.8. Asset Class Alignment: 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 [70/80/90%] portfolio emissions (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

2.8.1. Scope and Objectives

The Framework for this asset class is relevant to individual direct investments, direct investments in assets pooled through a fund structure, and investments in listed real estate companies. In the case of real estate funds, both closed ended and open-ended funds are available in the market and relevant are included in the scope of this framework. Derivatives such as mortgage backed securities are an additional investment vehicle through which investors have exposure to real estate assets but have not been explicitly considered for this framework. Furthermore, all types of real estate, commercial, residential and industrial, should be considered within the scope of an investor's efforts to align to the Paris Agreement.

Aligning a real estate portfolio means improving the efficiency of buildings and making more use of renewable energy to reduce the emissions associated with buildings in line with pathways to global net zero emissions by 2050. Therefore, the Framework proposes that investors should assess the alignment of real estate assets with appropriate net zero pathways for emissions reduction and energy use, and increase allocation towards aligned issuers while taking action to increase the alignment of non-aligned assets through investment or management plans, and engagement with tenants and listed companies.

As with other asset classes, it is important to assess forward-looking alignment of emissions and energy intensity associated with real estate assets. This will allow an investor to determine whether assets are consistent with net zero pathways and, thus, implement a strategy accordingly.

2.8.2. Undertaking alignment: Assessment

Investors **should assess the current and future alignment of assets with a net zero pathway**. In the case of real estate, it is noted that **both carbon intensity and energy intensity are relevant as pathways towards net zero emissions goals**. Projections of future alignment should take into account:

- 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.

Due to the fixed location of buildings and their operations, it is relevant to assess the differentiation in decarbonisation and energy intensity pathways to 2050 for buildings by region. These differences relate to current building stock, a country's energy mix, and other factors.

Carbon reduction pathways should include scope 1, 2 and relevant scope 3 emissions. Scope 3 emissions in the 2019 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.

As there are no clear methodologies to assess embodied carbon at present, it is not considered as within the scope of this framework at this time. However, the PAII recognises that there may be a trade-off (particularly in between retrofits to achieve reduced energy and carbon use but which may involve higher emissions from the embodied carbon of materials). Addressing this potential trade-off supports the need for the development of broadly available embodied carbon methodologies and data. As methodologies become available for assessing embodied carbon Framework could be updated.

As a general principle for the Framework, purchased offsets should only be considered as a last step in an emissions reduction hierarchy and are not encouraged, unless there is no technologically and economically viable alternative. There may be a short-term role for offsets in particular circumstances. There are substantial opportunities to increase the efficiency of buildings and utilise renewable energy which should be the primary mechanism through which investors achieve decarbonisation pathways for real estate (see also Annex 1 on offsetting).

Methodologies for assessing assets' alignment: real estate

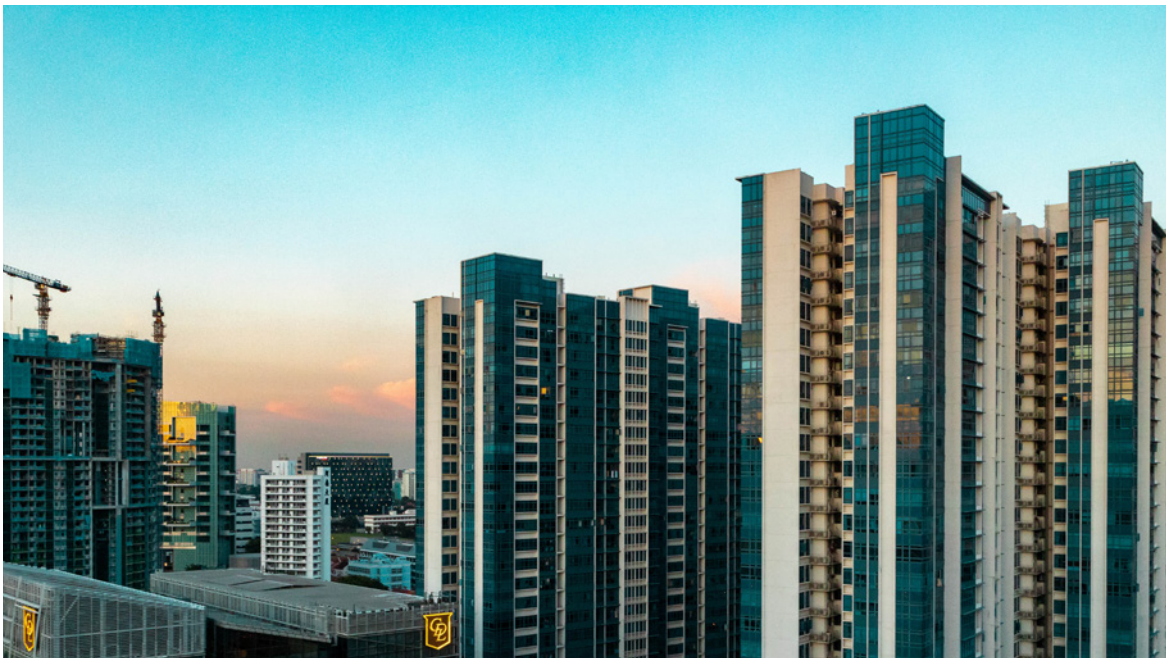
The working group consensus was that the Carbon Risk Real Estate Monitor (CRREM)[26] or an equivalent energy and carbon efficiency standard should be used to assess alignment of real estate assets in a portfolio. The CRREM tool has been developed to monitor the energy performance of single properties as well as of portfolios and whole companies, benchmark their performance and assess their 'stranding risk' due to regulatory changes, potential shifts in energy costs and refurbishment measures. The tool aims to provide the industry with appropriate science-based carbon reduction pathways at building, portfolio and company level and with risk assessment tools to cost-effectively manage carbon mitigation strategies. Although the tool is framed as a risk assessment tool, it allows investors to identify investments that are inconsistent with a 1.5°C pathways[27], whilst taking geographical and differences by building type into account.

The PAII working group identified a wide variety of building certifications, standards and ratings available in the market at both national and international level that address a broader range of sustainability issues in a building than just GHG emissions. The UK Green Buildings Council 'Paris Proof' standard, EU taxonomy and Climate Bonds Initiative criteria were also considered. The group considered the currently available standards and labelling (e.g. BREEAM, Energy Performance certificates (EPC), LEED) were not necessarily designed to assess Paris alignment of real estate portfolios. However, assessing whether a building with a green building standard could be considered 'Paris aligned', the PAII suggests that it would be necessary to demonstrate that there is consistency with the key features of alignment as set out in this document, including:

- A forward-looking, energy efficiency and carbon reduction assessment that uses or is comparable to the CRREM model
- Indication that the building and/or portfolio is on track to having emissions that are consistent with what is required for globally reaching net zero emissions by 2050
- Alignment regarding other factors such as disclosure, accounting, and the role of offsets

The working group noted that BREEAM is incorporating a 'net zero' component based on the CRREM standard into its assessment.

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 approach.



2.8.3. Undertaking Alignment: Implementation

Similar to listed equity and corporate fixed income, **investors should aim to increase the % of AUM that is invested in assets that are net zero or expected to align to a net zero pathway.**

An advantage of the CRREM tool is that it allows investors to assess assets based on current and expected emissions and intensity performance over time based on the current status of the building. However, the tool also enables investors to include information on expected retrofit and efficiency investments that can be taken into account in assessing the future alignment of a portfolio. This provides the basis on which to show the pathway of a portfolio and inform portfolio management decisions, including acquisition of new assets based on expected performance.

A Paris aligned real estate portfolio is, therefore, one that:

- Assesses the percentage of real estate assets that are aligned with the Carbon Risk Real Estate Monitor (CRREM) or equivalent 1.5°C energy or carbon intensity pathway, and
- Has a clear time-bound management and investment strategy and emission reduction targets supported by strong environmental, social and governance (ESG) policies to increase the percentage of 1.5°C aligned assets over a reasonable timeframe (5 years) to achieve a portfolio consistent with the 1.5°C energy intensity or emission reduction pathways

Therefore, to align a portfolio real estate investors should:

- ☐ Collect the necessary data to assess a portfolio using the CRREM tool or equivalent standard
- ☐ Set a five-year goal for increasing the proportion of assets aligned to a net zero pathway
- ☐ Develop a clear 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. Relevant components may include improving the efficiency of buildings through retrofits, making more use of renewable energy, and demand-side energy management
- ☐ These plans need to be adopted and implemented by all relevant stakeholders, and translated into agreements with the relevant parties involved in the management of real estate assets
- ☐ Screen new investments using the CRREM model or equivalent standard to assess alignment

For buildings where data is missing or not currently available there are two potential approaches for analysing a real estate portfolio's alignment with the CRREM emissions reduction pathways:

1. Include only those buildings for which the investor has operational control (i.e. whole building emissions are retrievable), with the remaining buildings to be included step-by-step as data gathering improves. This may require the investor to define operational control not only as a contractual definition, but also for any situation in which the investor is able to work with tenants and retrieve data and agree on future plans.
2. Include all buildings in the analysis, using estimates and approximations to cover areas where data is missing. The availability of estimates will likely differ significantly depending on the region.

The extrapolation function in the CRREM tool for missing data is useful if the data available represents both common area and tenant energy use. If only common area energy data is available, then this will likely not be useful for extrapolating full building energy use. Other ways to estimate missing energy data may be possible, but methods should clearly be described and given a qualitative evaluation.

The PAII recommends option 2 to ensure the widest possible coverage and to encourage action to secure data of the required quality.

It was also noted by the working group that the offices used by the staff of some real estate investors may not be held within the real estate portfolio. If a real estate investor or portfolio is seeking to be Paris aligned, then it should be expected that the investor takes up opportunities to also align their own buildings (whether owned or leased), though it is recognised that there may be limitations to this in some circumstances.

2.8.4. Engagement

A **Paris aligned investment strategy for real estate also includes engagement to support alignment. For listed real estate companies, this should follow the principles of the engagement approach set out in the listed equity and corporate fixed income section** regarding assessment of current and forward-looking alignment (integrating the CRREM assessment as the basis of engagement) and have a timebound, escalating engagement and voting policy for the company if progress towards alignment is not made.

For assets that are directly owned, **engagement with tenants is a key component to support alignment**. Investors should engage with tenants to:

- ☐ Improve the process of data collection for energy use, including as part of smart meter roll-outs by encouraging or even requiring tenants to share energy use data with building owners. (The PAII believe data privacy issues can be appropriately addressed)
- ☐ Facilitate actions and investments that reduce energy costs for tenants and owners, cut carbon emissions in line with science-based net zero goals. Such measures can also improve indoor air quality, improve tenants' facilities, reduce worker sick-days and create jobs for technology and installation companies
- ☐ 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 reaching global net zero emissions by 2050, including relevant targets for energy use in occupied buildings
- ☐ Strengthen the role of green leases, encouraging tenants to work with the many real estate associations that have developed green lease initiatives to guide investors and tenant green lease clauses
- ☐ Strengthen cooperative policy engagement to improve the policy framework around investments in building retrofits

Noting that the number of tenants in some investors' portfolios can make it difficult or costly to carry out in-depth tenant engagement, investors should prioritise based on the level of stranding risk and size of exposure to assets.

GRESB[28] assesses public and private real estate portfolios on approaches to tenant engagement. The 2020 GRESB Real Estate Assessment evaluates the coverage of portfolios that have tenant ESG engagement programs, tenant satisfaction surveys, ESG requirements in standard lease contracts, and portfolios that provide tenant fit-out guides, minimum standards, and procurement assistance. **Paris alignment should include reporting, disclosure, and positive scoring on the GRESB tenant engagement indicators related to climate and energy use**.

2.8.5. Policy advocacy

The PAII notes that achieving the level of energy intensity and associated emissions reductions in real estate is extremely challenging, and that it may not be currently feasible for all buildings to be aligned to the CRREM pathways given the level of emissions reduction and energy efficiency required particularly in the late 2030s and 2040s.

Therefore, the PAII calls on policymakers to cooperate further with investors. Key policy asks identified during the working group process include:

- ☐ **That policymakers integrate 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**
- ☐ **That policymakers should also facilitate improved energy use data disclosure and data sharing initiatives**
- ☐ **Carbon pricing and/or additional incentives** to promote retrofits and new builds that meet the required energy efficiency for a net zero global emission pathway

Investors should have a clear strategy for engagement with listed companies and tenants, policy advocacy, and provide transparency on the actions undertaken.

Box 4: How should asset managers apply the Framework

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). Large multi-client asset managers, which operate a variety of mandates, may not be free to adopt alignment strategies or policies covering all of the assets under their management. The extent to which Paris aligned investment opportunities can be provided will depend on asset owner demand for segregated mandates or pooled funds that fit the Paris aligned model.

However, the PAII considers that all types of asset manager can adopt the long-term objective of **aligning assets under management and investment strategies to the goal of achieving global net zero emissions by 2050**.

Where asset managers are carrying out full management of a single client portfolio, all elements of this framework can be applied.

For asset managers with multiple clients and for specialist asset managers, **components of the Framework such as policy advocacy, stewardship and engagement should be implemented across the business**.

Asset managers should then adopt the remaining components across all funds that they manage to the extent possible. Where asset managers have segregated mandates, some existing mandates will be able to evolve and apply new criteria based on the Framework, especially where there is an individual client to agree this with. However, it is likely to be significantly more complex to revise mandates where there are a large number of unit holders. However, asset managers should look at the flexibility available in relation to engagement and responsibility approaches in order to adapt existing products to apply PAII recommendations to the extent possible.

Asset managers are also encouraged to develop new Paris **aligned products, funds and strategies across asset classes and educate clients regarding these offerings**.

Client engagement is an additional key component of a net zero strategy for asset managers, to ensure clients are aware of and encouraged to agree mandates that are Paris aligned, and invest in aligned funds and products. As an additional metric, **asset managers are encouraged to have an objective to increase the proportion of their assets under management which are managed in line with a net zero investment strategy**.

Some asset managers are specialists in low-carbon, green or sustainable investments and are, therefore, already managing products and portfolios which are consistent, or more aligned, with pathways to net zero than diversified managers or asset owners. The PAII encourages these **managers to follow the principle of maximising the contribution to alignment**, in line with this framework. To support consistency in the market these managers should also seek to make products and performance measurement consistent with the metrics and methodologies recommended here (e.g. climate solutions funds to use EU taxonomy criteria to the extent possible).

QUESTIONS FOR CONSULTATION:

12. Does Box 4 describe how asset managers can apply this framework?
13. What further detail or ‘use cases’ are needed to enable asset managers to utilise the Framework?

Annex 1: Emissions accounting and offsetting

There are still significant challenges in undertaking accurate GHG accounting for portfolios. However, the PAII considers it important for investors to set objectives and measure the GHGs associated with portfolios over time in order to assess whether actions are having expected impacts on the carbon intensity or carbon reductions from a portfolio.

At the whole portfolio level, investors should set targets based on the 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.

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)[29], 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. It is important for investors 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 2.6, when considering the alignment performance of a sovereign issuer, the PAII consider 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, fixed income or real assets. Aggregating these emissions within a target could result in significantly over-rewarding small changes in sovereign alignment in 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 SSA.

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 on a consistent basis 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 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 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 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.

At the same time, maximising the avoided emissions associated with a portfolio is a potentially interesting measure to assess and incentivise investors to allocate capital to the most impactful climate solutions. For example, investing renewable energy in India is more beneficial to reaching global goals that investing in renewable in France given it displaces higher emissions technologies from the energy mix. However, avoided emissions methodologies have significant challenges and potential to provide perverse incentives towards certain investments. Therefore, as part of Phase II, PAII will consider methodologies that could capture relative impact of climate solutions investment.

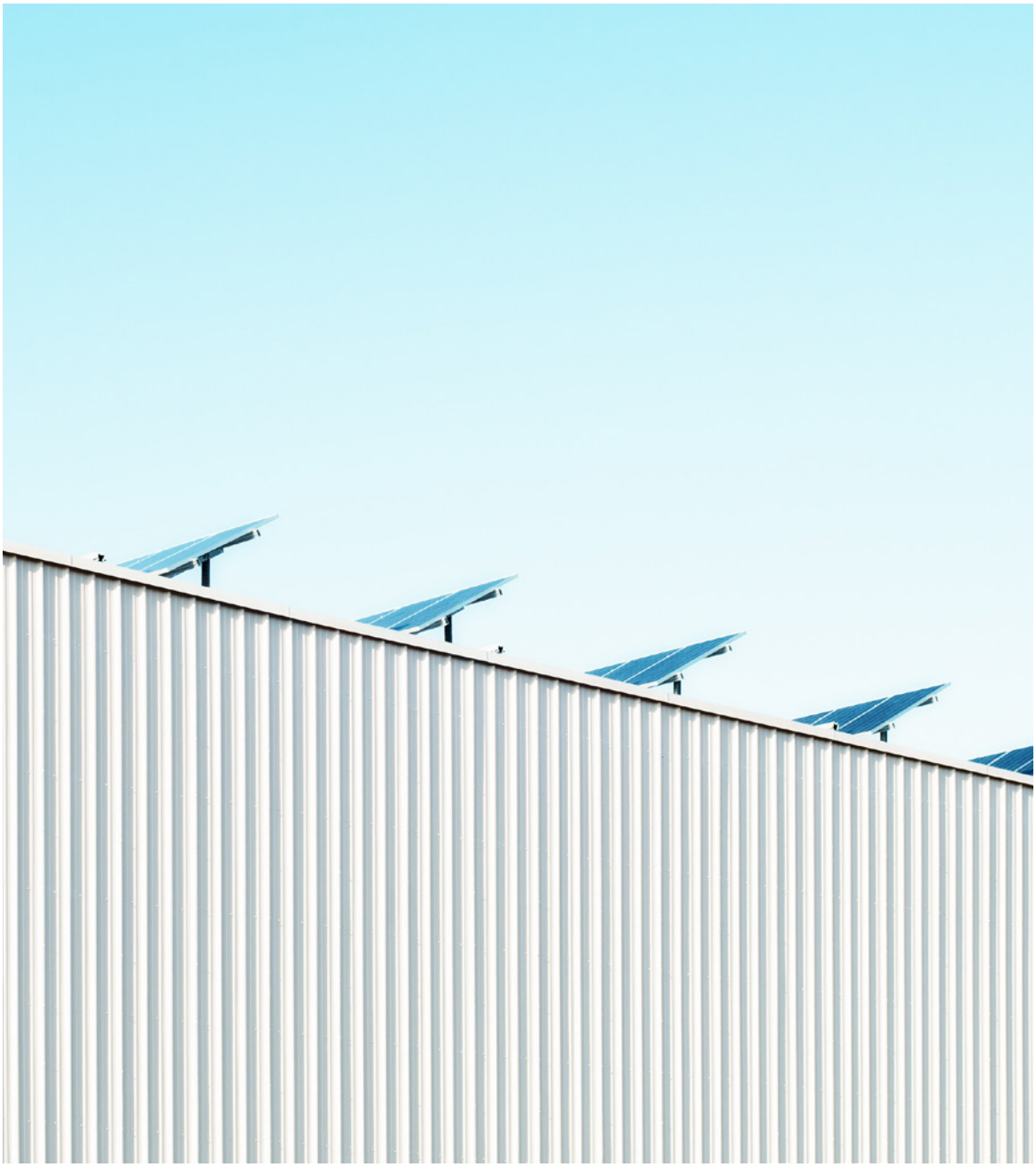
QUESTIONS FOR CONSULTATION

14. Do you agree with the approach taken to emissions accounting described in Annex 1? If no, please explain the approach you would recommend

15. Should the Framework provide a specific recommendation(s) on accounting methodologies to be applied by investors e.g. for re-baselining emissions intensity targets?

Further work in Phase II

- identification, or development, of categories/ definitions of allowable offsetting by sector
- assess the definition for material scope 3 emissions by sector, and identify the most robust scope 3 accounting approaches for reporting and estimating scope 3 emissions.



References

1 https://unfccc.int/climate-action/race-to-zero-campaign

2 IPCC (2018), Global Warming of 1.5°C. Global net zero emissions by 2050 represents a low overshoot scenario associated with a >66% probability of limiting temperature increase to 1.5°C is therefore recommended as the appropriate precautionary approach to achieving the 1.5°C goal of the Paris Agreement

3 https://www.iea.org/reports/world-energy-model/stated-policies-scenario

4 The lower threshold (70%) reflects an initial estimate of the potential emissions coverage within a portfolio of the companies targeted through CA100+ collective engagement initiative. However this coverage will vary depending on the investor and we are therefore seeking feedback on an appropriate minimum threshold.

5 PAII notes that many investors do not have the capability to assess expected returns under a variety of climate scenarios. For these investors, simplified approaches may be possible. For example, considering scenarios for a few key sectors using public projections e.g. how demand for oil and gas, electric vehicles and renewable energy change over time.

6 There are questions about whether Scope 2 emissions double count power sector Scope 1 emissions. This perhaps does not matter if the objective is to reduce emissions over time. As recommended in the listed equity and corporate fixed income working group, Scope 3 emissions could be included in total carbon intensity score if possible, but there is still considerable uncertainty about how to measure scope 3 consistently, and data quality is poor.

7 This metric is also relevant to the current challenges of incorporating scope 3 emissions into the primary metric and is therefore encouraged as an additional metric

8 Calculation from the SAA working group based on a straight-line reduction in emissions from the 2015 emissions level of 35bn tCO2 to zero in 2050. On this straight-line trajectory, emissions should currently be around 30bn tCO2. This compares to the estimated 37bn tCO2 emitted in 2019. A reduction of 30/37 or 19% is required to put us back on track

9 United Nations Environment Programme (2019). Emissions Gap Report 2019. UNEP, Nairobi

10 This is based on an estimate from an index company that 6% of the global equity benchmark is currently invested in climate solutions (on a revenue basis). Given the climate solutions segment has grown faster than the MSCI world in the last 5 years (15% pa vs 5%), we can estimate that it would have been around 3% in 2015

11 The full range of other optimisation considerations should also be incorporated – turnover, transaction costs, liquidity, and Solvency Capital charges etc

12 Aberdeen Standard Investments (2019) SAA: ESG's new frontier. It is recognised that some investors (e.g. some DC schemes) may be limited in the extent they can adjust portfolios in this way

13 There is no internationally accepted definition of 'fair share' in relation to differentiated pathways by country. However, various approaches are identified in the literature and used in assessment methodologies that can provide a reasonable basis.

14 https://www.germanwatch.org/sites/germanwatch.org/files/CCPI_2020_Background%20and%20Methodology.pdf

15 https://www.100resilientcities.org/

16 https://www.cdp.net/en/cities/cities-scores/

17 United Nations Environment Programme (2019). Emissions Gap Report 2019. UNEP, Nairobi

18 Most appropriate percentage to be determined through the consultation process

19 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

20 IIGCC 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

21 PAII recognises that intensity performance should be consistent with overall absolute emissions reductions in line with the 2050 goal. It may be relevant for companies to provide information on absolute as well as intensity based metrics

22 This threshold set is equivalent to TPI management quality indicators level 2 'Building Capability'

23 Any type of emissions reduction target or goal is an acceptable minimum, even if it does not yet cover all scopes, all parts of the company, or is not yet consistent with net zero

24 For example, a European power generation company with substantial thermal coal generation would have to make immediate and rapid progress from the minimum threshold to align to a net zero pathway. A Chinese car manufacturer could improve its performance against the criteria in slower time

25 GICS Industry Groups: Utilities; Energy; Materials; Transportation; Food, Beverage & Tobacco; Automobiles & Components

26 https://www.crrem.eu/

27 The 1.5°C pathway utilises the MAGICC and MESSAGE models, with a >50% chance of limiting warming to 1.5°Cs, as set out in Rockström, J., Gaffney, O., Rogelj, J. et. al. (2017) A roadmap for rapid decarbonization. Science, Volume 355 Issue 6331

28 GRESB 2020: https://documents.gresb.com/generated_files/real_estate/2020/real_estate/reference_guide/complete.html#performance-tenants-and-community

29 https://carbonaccountingfinancials.com/files/downloads/1911-pcaf-report-nl.pdf?6253ce57ac

Legal Disclaimer

This Report has been prepared by the Institutional Investors Group on Climate Change, the European membership body for investor collaboration on climate change and the voice of investors taking action for a prosperous, low carbon future.

No Financial Advice:

The information contained in this Report is general in nature. It does not comprise, constitute or provide personal, specific or individual recommendations or advice, of any kind. In particular, it does not comprise, constitute or provide, nor should it be relied upon as, investment or financial advice, a credit rating, an advertisement, an invitation, a confirmation, an offer, a solicitation, an inducement or a recommendation, to buy or sell any security or other financial, credit or lending product, to engage in any investment strategy or activity, nor an offer of any financial service. While the organisations have obtained information believed to be reliable, they shall not be liable for any claims or losses of any nature in connection with information contained in this document, including but not limited to, lost profits or punitive or consequential damages. This Report does not purport to quantify, and 2°ii or IIGCC makes no representation in relation to, the performance, strategy, prospects, creditworthiness or risk associated with the Framework, strategy, or any investment therein, nor the achievability of any stated climate targets. The Report is made available with the understanding and expectation that each user will, with due care and diligence, conduct its own investigations and evaluations, and seek its own professional advice, in considering investments' financial performance, strategies, prospects or risks, and the suitability of any investment therein for purchase, holding or sale within their portfolio. The information and opinions constitute a judgment as at the date indicated and are subject to change without notice. The information may therefore not be accurate or current. The information and opinions contained in this report have been compiled or arrived at from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made by IIGCC as to their accuracy, completeness or correctness.

Exclusion of liability:

To the extent permitted by law, we will not be liable to any user for any direct, indirect or consequential loss or damage, whether in contract, tort (including negligence), breach of statutory duty or otherwise, even if foreseeable, relating to any information, data, content or opinions stated in this Report, or arising under or in connection with the use of, or reliance on the Framework or this Report.

IIGCC

The Institutional Investors Group on Climate Change

PARIS ALIGNED INVESTMENT INITIATIVE:

Net Zero Investment Framework for Consultation

Report design by Jory & Co