Principles for Responsible Investment

UNEP FINANCE INITIATIVE

Inaugural 2025 Target Setting Protocol

U.N.-CONVENED NET-ZERO ASSET OWNER ALLIANCE

MONITORING REPORTING AND VERIFICATION TRACK

In partnership with:

WWF

GLOBAL OPTIMISM

This Document was written by the members of the U.N.-Convened Net-Zero Asset Owner Alliance. Members include:
Udo Riese (Allianz), Claudia Bolli (Swiss Re), Sylvain Vanston (AXA), Thomas Liesch (Allianz), Peter Sandahl (Nordea), Marcus Bruns (Storebrand), Jean-Francois Coppenolle (Aviva), Helena Charrier (CDC), Thiviya Rajendran (Aviva), Peter Loow (Alecta), Aaron Pinnock (COE), Lise Moret (AXA), Sadaf Stutterheim (Zurich), Ben Carr (Aviva), Michel Leveillee (CDPQ), Gallus Steiger (Swiss Re), Johanna Koeb (Zurich), Ditte Seidler Hansen (PD), Bertrand Millot (CDPQ), Vincent Damas (CNP), Pauline Lejay (ERAFP), Elisa Vergine (Generali), Emilie Westholm (Folksam), Johannes Jogi (Folksam), Jan Kaeraa-Rasmussen (PD), Divya Mankikar (CalPERs), Anne Faivre (CDC), Florent Rebatel (CDC), Anna Viefhues (AMF), Eric Jean Decker (AXA), Zelda Bentham (Aviva), Pascal Coret (CDC), Patrick Peura (Allianz), Sona Stadtelmeyer-Petru (Allianz), Anil Gurturk (Kenfo), Adam Matthews (COE), Stephen Barrie (COE), Jens Norell (AMF), Russ Bowdrey (Aviva), Yun Wai-Song (Scor), Justin Travlos (AXA), Thibaud Escalon (AXA), Thomas Rouland (AXA), James Corah (CCLA), Allison Vanlint (CBUS), Nicole Bradford (CBUS), James Spencer (CBUS), Rosalind McKay (CBUS), Laureen Tessier Haygarth (CDC), Laurent Deborde (CDC), Abou Ali Magued (CNP), Charles-David Tremblay (CDPQ), Charly Bastard (CDPQ), Francois Humbert (Generali), Francesco Sola (Generali), Jacopo Cardinali (Generali), Johannes Blankenheim (Kenfo), Børrild Troels (MP Pension), Martina Englmann (Munich Re), Alfred Wasserle (Munich Re), Silke Jolowicz (Munich Re), Pascal Zbinden (Swiss Re), Jake Barnett (Wespath), Rashed Khan (Wespath), Fred Huang (Wespath), Candice Dial (Rockefeller), Adam Phillips (UNJSPF), Claudia Limardo (Zurich), Danielle Brassel (Zurich), John Scott (Zurich), Sue Reid (Mission2020), David Knewitz (WWF), Hannes Peinl (WWF), Jan Vandermosten (WWF), Matthias Kopp (WWF), Ed Baker (UNPRI), Sagarika Chatterjee (UNPRI), Remco Fischer (UNEP FI), Elke Pfeiffer (UNPRI), and Jesica Andrews (UNEP FI).

The Alliance would also like to express its gratitude to the following reviewers/commentators:

Iren Levina, Ph.D.
Portfolio Alignment Team, COP26 Private Finance Hub

Jerome Hilaire, Ph.D.
Potsdam Institute for Climate Impact Research

Jakob Thomä
Managing Director, Two Degrees Investing Initiative

Glen Peters
Research Director, CICERO

Johan Falk
Co-founder and Head of Exponential Roadmap Initiative

Magnus Jiborn, Ph.D.
Head of Research, Global Challenges Foundation

Nate Aden
Senior Fellow, World Resources Institute & Science Based Targets Initiative

Antitrust and Regulatory Disclaimer

The Alliance and its members are committed to comply with all laws and regulations that apply to them. This includes, amongst others, antitrust and other regulatory laws and regulations and the restrictions on information exchange and other collaborative engagement they impose.

Note to readers

A growing number of financial institutions, including the world's largest investment managers, banks, and asset owners, are making commitments to set Paris Agreement-aligned portfolio targets. Members of the United Nations-Convened Net-Zero Asset Owner Alliance are involved in a number of these initiatives. With this report, the Alliance seeks to contribute to the next phase of target setting by global investors. The document provides details on a series of approaches, strategies and frameworks for the process of portfolio-level target setting across asset classes, sectors and investment management actions. Members of the Alliance have also made commitments to other initiatives including the UN Global Compact Business Ambition for 1.5°C, the Science Based Targets Initiative Finance (SBTi-Finance), the Paris Aligned Investing Initiative (PAII) of the Institutional Investors Group on Climate Change (IIGCC) and the Investor Agenda Investor Climate Action Plans (ICAPs). The Alliance has coordinated with SBTi-Finance and offers compatible methodological approaches as well as builds on the comprehensive Net-Zero Investment Framework draft provided by the PAII while offering quantitative insights necessary for 5-year target setting.

Contents

Acronyms

AFOLU	Agriculture, Forestry and Other Land Use
AO	Asset owner
AOA	Asset Owner Alliance
BECCS	Bioenergy with carbon capture and storage
BICS	Bloomberg Industry Classification System
CDR	Carbon Dioxide Removal
CO_2e	Carbon Dioxide Equivalent
COP26	26th United Nations Climate Change Conference of the Parties
CRREM	Carbon Risk Real Estate Monitor
DFI	Development Finance Institution
EAF	Electric Arc Furnace
EBA	European Banking Authority
EDFI	Association of European Development Finance Institutions
EIOPA	European Insurance and Occupational Pensions Authority
ESG	Environmental, Social and Corporate Governance
ESMA	European Securities and Markets Authority
ETC	Energy Transition Commission
EV/EVIC	Enterprise Value/ Enterprise Value Including Cash
FI	Financial Institution
GHG	Greenhouse Gases
GICS	Global Industry Classification System
IEA	International Energy Agency
IGCC	Investor Group on Climate Change
IIASA	International Institute of Applied Systems Analysis
IIGCC	Institutional Investors Group on Climate Change
IPCC	International Panel on Climate Change
ISF	Institute for Sustainable Futures
MRV	Monitoring Reporting and Verification
NACE	Statistical Classification of Economic Activities in the European Community
NDC	Nationally Determined Contribution
NDPE	No deforestation, no peat, no exploitation policies
NOC	National Oil Companies
OECM	One Earth Climate Model
OGCI	Oil and Gas Climate Initiative
PACTA	Paris Agreement Capital Transition Assessment
PAII	Paris Aligned Investing Initiative
PCAF	Platform for Carbon Accounting Financials
PIK	Potsdam Institute for Climate Impact Research
PRI	Principles for Responsible Investment
RMI	Rocky Mountain Institute
RTS	Regulatory Technical Standards
sbt	science-based target (not associated with a validation initiative)
SBTI	Science Based Targets Initiative
SEI	Stockholm Environment Institute
SRC	Stockholm Resilience Centre
SAA	Strategic Asset Allocation
TPI	Transitions Pathway Initiative
ULCOS	Ultra–Low CO2 Steelmaking
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environment Programme Finance Initiative
UTS	University of Technology Sydney
WEF	World Economic Forum
WEF MPP	World Economic Forum Mission Possible Platform
WRI	World Resources Institute
WWF	World Wildlife Foundation

Inaugural 2025 Alliance Target Setting Protocol

The Alliance is proud to launch the Inaugural 2025 Alliance Target Setting Protocol. The members of the MRV track developed the contents within this Protocol throughout 2020. On 13 October 2020, at the UNEP Global Round Table, the Protocol was issued for public consultation. The Alliance sincerely appreciates the input it received during the month long consultation. The Alliance has since revised this Protocol based on the input received from the public. The Alliance aims to continue to enhance this Protocol to increase coverage and depth, the public may expect an updated version to be released annually.

Foreword

It has been 5 years since 195 national governments came together in Paris to adopt the first-ever binding global climate deal. Cities, regions, states, and the private sector played a crucial role galvanizing support and building momentum for the Paris Agreement, and have continued to scale efforts to support a stable and thriving planet. Action to implement the Agreement – and to align policies, business plans and investments with its goal of achieving net zero emissions by mid-century – has spread across the globe.

In September 2019, at the UN Secretary General's Climate Action Summit, national governments again took the stage to announce plans and highlight progress in making the Paris Agreement a reality. And again, they were joined by private sector leaders who are attuned to the existential risks of inaction on climate as well as the unprecedented opportunities tied to building a thriving net zero emissions economy. Notably, the groundbreaking U.N.-Convened Net-Zero Asset Owner Alliance was launched and became the founding investor initiative of what has become the "Race to Zero" campaign. In little more than a year since then, the Asset Owner Alliance has grown to 33 investors with over USD 5 trillion in assets under management who have pledged to make their portfolios net-zero emissions by 2050.

Beginning in January 2021, Asset Owner Alliance members will take another unprecedented step: to issue their 2025 interim targets. Issuing transparent, rigorous and realistic targets, and then committing to report against them in the next 4 years, is at once an extraordinary – and also essential –demonstration of ambition by private sector leaders who exist at the pinnacle of our financial systems. The 33 investors of the Asset Owner Alliance are leading the way and igniting a tidal wave of action across the globe.

This Protocol covers the detailed methodologies which asset owners will use to calculate, allocate and set targets to reduce the carbon in their portfolios. The Protocol covers multiple asset classes, and encompasses even the hardest-to-abate sectors. Its quantitative targets are in line with the Intergovernmental Panel on Climate Change (IPCC) 1.5-degree Celsius 'no' and 'low' overshoot scenarios. By setting targets for 2025 pursuant to this Protocol, asset owners are taking the most reliable paths to keeping the temperature below 1.5-degrees Celsius, and avoiding reliance on unproven "negative emissions" technologies. Alliance members will further issue sector targets that cover the highest emitting sectors such as Oil and Gas, Transport and Steel. Taking a sectoral approach means that these investors will be stepping up their work to move high carbon companies to make the changes required for the net-zero transition. This is in line with the Marrakesh Partnership, Race to Zero and Science-Based Targets initiative's Sector Decarbonization Approach, among others. The Protocol also provides guidance for asset owners to set interim financing targets and enable their collective capital to boost the investments needed to transition to a net-zero emissions world. Finally, the Protocol supports Alliance members' efforts to align their policy advocacy with the net zero objective – engaging governments to help ensure that industries, and indeed the global economy, have supporting policies in place to enable a rapid and smooth transition.

This Protocol, and the individual investor targets that will follow, represent the first time major investors are making such transparent commitments, from pension funds to private insurance companies, to sovereign wealth funds.

More financial actors, and companies across the globe, must follow by publishing their own rigorously science-based and accountable targets. The net-zero emissions world is one that we can and must achieve, together. .

Photo credit: Jimena Mateo

Christiana Figueres

Founding Partner, Global Optimism, & Former Executive Secretary,
United Nations Framework Convention on Climate Change

Executive Summary

The 2025 Alliance Target Setting Protocol sets out the Alliance's approach to individual member and collective target setting and reporting for the period 2020–2025. The Alliance aims to be as **transparent and as robust** as possible. Thus, this document has been circulated for public comment prior to final publication. The Alliance aims to provide its members with access to the approaches and methods that best support and align with the target setting and the Alliance Commitment. In this sense, the available methods and approaches are evaluated and assessed, and recommended to the members if the Commitment can be fulfilled through them.

The authors acknowledge that asset owners have fiduciary (or equivalent) duties to their members and beneficiaries. These duties require asset owners to act in the interests of beneficiaries and members', to act prudently, and to exercise care, skill and caution in pursuing an overall investment strategy. They require asset owners to invest on the basis of credible information, analysis, scenarios and models, and to retain the flexibility to adapt in response to changing circumstances.[1]

Wherever possible the Alliance recommends members use **science-based** ranges, targets and methodologies, noting that data and methodological constraints persist. Members are responsible for employing the **recommended science-based criteria** outlined herein or explaining why they chose an alternative target or methodology from the range of options discussed below. The Alliance will support Alliance members to develop a deep and practical knowledge of scenarios derived by the IPCC, acknowledging at present that scenarios remain largely inaccessible to the non-climate expert portfolio managers looking to adjust portfolios for the benefit of their beneficiaries.

The Alliance is committed to driving **real world impact, primarily through engagement with corporates and policymakers** as well as **contributing capital required to finance the transition.** Given the complex nature of leveraging ownership and financial strategies to drive real world change, and tracking impacts of these actions, a 4-part target setting structure is recommended.

Scope and Coverage of the Protocol

Targets are set on the **asset owner's own Scope 3 emissions** (sometimes referred to as "portfolio emissions" or financed emissions). In addition to setting Scope 3 emissions targets, Alliance members are encouraged to set net-zero targets on their own Scope 1 and 2 emissions, as possible. The Alliance further recommends that members set targets on **Scope 1 and 2 emissions for their underlying holdings** and on **Scope 3 of underlying holdings** for 'priority sectors'[2] when possible as detailed in the chapter on sector-level targets. At the portfolio level, Alliance members should track Scope 3 emissions, but are not yet expected to set targets until data becomes more reliable.[3]

Alliance commitments require Alliance members to publish interim targets every 5 years. This reporting schedule is in line with Article 4.9 of the Paris Agreement which requires signatories to submit updated emissions reduction plans every five years.[4] National governments who have signed up to the Paris Agreement will communicate these updated emissions reduction plans, also known as Nationally Determined Contributions (NDCs), in 2025, 2030, 2035, 2040, 2045 and 2050.

1 The authors further acknowledge that collaborative engagement of shareholders may, depending on the facts of the individual case, be subject to regulatory requirements or restrictions in certain jurisdictions. It is up to the individual Alliance members to determine whether a specific course of action is possible or feasible in this regard. The Alliance does not expect its members to act in a certain way where this would not be possible or feasible with a view to regulatory requirements.

2 Identified from those with high Scope 3 emissions or otherwise large emissions contributions as Oil and Gas, Utilities, Steel, Aviation, Shipping and heavy and light duty road transport.

3 Comparisons of Scope 3 data reported by similar companies indicate the largest degree of divergence in reported emissions. See Busch, T., Johnson, M., Pioch, T. and Kopp, M. (2018) 'Consistency of Corporate Carbon Emission Data' University of Hamburg: ec.europa.eu/jrc/sites/jrcsh/files/paper_timo_busch.pdf.

4 UNFCCC (2015) Paris Agreement: unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf

Alliance members who join the Alliance and issue targets after 2020 may reduce by 5%-pts. per annum from 2020 for their 2025 sub-portfolio targets. Alliance members who chose earlier base years for their target setting shall consider whether a similar, additional adjustment of -5%-pts p.a. is appropriate.[5,6] Alliance members will report their emissions reduction targets and associated progress in **CO_2e**.[7] Members are encouraged to disaggregate GHG emission data wherever possible.[8] It is also recommended that Alliance members explain and adjust for large organic and inorganic portfolio changes.

Engagement Targets

- Engagement with 20 companies with a focus on highest emitters or those responsible for 65% of emission in portfolio (either Direct, Collective, or via Asset Manager)
- Contribute to
  - Sector - Engagement with corporates in target sectors
  - Asset Manager - Each member to participate in at least one engagement with the pre-identified (largest) 4 Asset Managers
  - Alliance position papers

AOs to set action targets on policy advocacy

Sector Targets

- Intensity-based reductions on Alliance priority Sectors (O&G, Utilities, Steel, and Transport – Aviation, Shipping, Heavy and Light Duty Road)
- Scope 3 to be included wherever possible
- Sector specific intensity KPIs recommended
- Sectoral Decarbonization Pathways used to set targets

1.5 degree
Net-Zero by 2050
Real World Impact

Sub-portfolio (later Portfolio) Emission Targets

- -16% to -29% CO_2e reduction by 2025 (per IPCC 1.5°C SR scenarios) on Listed Equity and Publically Traded Corporate Debt, with the same recommended for Real Estate and/or CRREM national pathways used
- Covers Portfolio Emissions Scope 1 & 2, tracking of Scope 3
- Absolute or intensity-based reduction against 2019 base year recommended

Financing Transition Targets

- Report on progress on climate-positive investments
- Focus on renewable energy in Emerging Markets, Green Buildings, Sustainable Forests, and Green Hydrogen, among others
- Contribute to activities enlarging the low carbon investment universe and building solutions

Figure 1: **The 4-part Target Setting Structure**

5 This is in line with IPCC 1.5°C reductions required for 2015–2020 as well as an equitable annual share of the 2020–2025 Alliance reduction target average.
6 The Alliance fully acknowledges that global emissions were not reduced in years before 2019
7 Greenhouse gases which contribute to climate change are CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, and NF_3. The predominant gas being Carbon Dioxide (CO_2). CO_2 equivalent or "CO_2e" means the number of metric tons of CO_2 emissions with the same global warming potential as one metric ton of another greenhouse gas.
8 Members should seek to understand whether carbon emission reductions in the portfolio are achieved by transferring assets to other investors or by emissions reductions in the asset itself.

'Sub-Portfolio' Targets.[9] Sub-portfolio targets cover asset classes where credible methodologies and sufficient data coverage exist today. Later, once full coverage is reached, these will be termed simply 'Portfolio targets'. Where sufficient data exists, Alliance members should set targets across their listed equity, publicly traded corporate debt and real estate portfolios. The Alliance **assessed the IPCC's 1.5°C pathways**[10] and identified an asset class-level emissions reduction target range of -16% to -29% by 2025 (see Chapter 5 for further details). Alliance members may choose the most feasible pathway for portfolio target setting taking into account the impact on the real economy and other member-specific considerations and constraints. Alliance members will set targets on an absolute or intensity-basis (see sub-portfolio target section for details on appropriate metrics).

Sector Targets. Sector targets help link portfolio-level reductions to the efficiency requirements and **real-world outcomes**. Alliance members' may also refer to these targets, amongst other sources, to inform their stewardship, policy and allocation activities in these sectors. **Intensity-based, sector-specific targets** for high emitting sectors reflect the specifics of each sector, their respective energy transition trade-offs with other sectors in the global economy, and the role they are expected to play in the transition to a net-zero economy (e.g. sector specific intensities across transport sector segments, a coal phase-out pathway for power utilities). The Alliance will review emerging sector-specific pathways for inclusion as reference points in the Protocol, so long as these are compatible with carbon budgets and assumptions derived from scientific assessments.

The Alliance will start with the highest emitting sectors for both Sector specific Targets. Alliance members will start by setting sectoral targets for:

i. **Oil & Gas;**
ii. **Utilities;**
iii. **Transport –** civil aviation, shipping and road transport; and
iv. **Steel**.

Engagement targets. Engagement targets track our activities and progress with individual corporates. The engagement targets provide Alliance members with a set of tools, by which they may drive change at the company and sector-level in the real economy. These targets are a necessary component of the target setting exercise for each Alliance member. To define their 2025 Engagement Target(s), individual Alliance members should identify either **20 companies with a focus given to the highest emitters or those responsible for 65% of their portfolio owned-emissions**[11] **which do not already have Paris-Aligned business transition commitments** and set either Direct, Collective, or Asset Manager action targets to engage the identified group of high emitting companies. The Alliance encourages members to define asset class and/or sector-level emissions targets in conjunction with engagement targets, given that engagement activities are expected to play a prominent role in achieving sub-portfolio and sector targets. Members will define their own engagement targets by selecting joint and/or individual and/or outcome-based KPI in this/these area(s) from the common KPI framework (as described in the Engagement Targets Chapter). Each member should decide whether to report on multiple engagement KPIs, while setting targets on a more limited number of KPIs. Alliance members will coordinate closely with other initiatives such as Climate Action 100+ to ensure effective marshalling of resources and clarify of message with companies.

Financing Transition targets. "Financing Transition" provide ample long-term contribution to

9 The Alliance will not give any recommendations or instructions to their members which precise measures need to be taken to achieve the targets as stated in this document nor will the Alliance members exchange any information on transaction basis.

10 The Alliance has analysed all scenarios and recommends use of scenarios with limited overshoot of global temperature rise of 1.5°C, i.e. with limited necessary removal of atmospheric carbon to bring the temperature back to below 1.5°C. These sets of scenarios are usually described by their representative pathways P1, P2 and P3. This is considered 'best available' science. See Rogeli, J. et al (2018) *'Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development'*.

11 Owned-emissions refer to share of emissions from an equity ownership perspective. For example, this would mean that if an investor owns 1 share in a high emitting company, but 20 shares in a mid-range emitter such that the mid range company was a greater source of the investor's total portfolio emissions, then the investor would engage the mid-range emitter where they have greater leverage through their ownership, rather than an large emitter, which is likely to be entered into engagements with other investors who own a larger share of the high emitter.

the creation of a net-zero economy, not simply the decarbonization of the current economy or a specific sector. Setting financing transition targets therefore require a less quantitative approach than other targets. Reference to financing transition targets encourages Alliance members to use the resources and capabilities available to them to grow the supply side of net-zero solutions. In particular, Alliance members should explore opportunities to **support the growth of investment into Green Buildings, Renewable Energy in Emerging Markets, Sustainable Forestry and Agriculture, Green Hydrogen Fuel development**, among other growing market segments linked to the net-zero transition. Public reporting on financing transition targets will be conducted at the Alliance level via shared communications. Members are also encouraged to report individually to the public on their progress against these targets. **The Alliance will focus on enlarging the scale, pace, and geographic reach of net-zero compatible technologies**. Alliance members contribute to financing transition targets by conducting roundtables,[12] investing in the supply side of low carbon solutions and establishing working relationships with Development Finance Institutions (DFIs) or other partners to enlarge geographical coverage of investable solutions. Alliance members may invest in assets which increase portfolio carbon emissions initially but enables an investor to encourage or finance low carbon transition actions in the company, particularly allowing for such investments in emerging markets.

Policy engagement targets. Policy engagement targets support all of the above efforts and addresses factors beyond the control of Alliance members. The Alliance's policy work has 3 focus areas:

i. embedding net-zero by 2050 in the post-COVID19 economic recovery framework, **Nationally Determined Contributions (NDCs)** and national emission reduction plans;
ii. **sector policies** to promote an accelerated energy transition; and
iii. promotion of **mandatory climate reporting** and business transition plans at investee companies. Alliance members will identify their policy priorities and strategies for advocating for regulatory and policy measures that will accelerate the transition, working closely with existing initiatives such as The Investor Agenda and the Inevitable Policy Response.

Alliance recruitment target. The Alliance recruitment target aims to achieve a minimum of 200 Alliance members or USD25 trillion in assets under management across the group in the mid-term.

The Alliance will publish an annual qualitative progress **report**, and a more detailed report on quantitative achievements every 5 years.

12 When conducting roundtables, care will be given to ensure that the Alliance members are not required to share information that would amount to insider information and that members comply with all antitrust and other regulatory laws and regulations. Additionally, no insider information will be shared at these roundtables.

1. Introduction: asset owner contributions to global ghg reductions

1.1. The Alliance Commitment: What we want to achieve

The members of the Alliance have made the following commitment:

"The members of the Alliance commit to transitioning their investment portfolios to net-zero GHG emissions by 2050 consistent with a maximum temperature rise of 1.5°C above pre-industrial temperatures, taking into account the best available scientific knowledge including the findings of the IPCC, and regularly reporting on progress, including establishing intermediate targets every five years in line with Paris Agreement Article 4.9.

In order to enable members to meet their fiduciary duty to manage risks and achieve target returns, this Commitment must be embedded in a holistic ESG approach, incorporating but not limited to, climate change, and must emphasise GHG emissions reduction outcomes in the real economy.

Members will seek to reach this Commitment, especially through advocating for, and engaging on, corporate and industry action, as well as public policies, for a low-carbon transition of economic sectors in line with science and under consideration of associated social impacts.

This Commitment is made in the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met."

Monitoring, Reporting and Verification. In order to deliver on this commitment, the members of the Alliance will develop, issue and report against their decarbonisation targets every 5 years. The Monitoring, Reporting and Verification (MRV) track drives this effort. Members of the MRV track have reviewed large amounts of known, available scientific guidance, commissioned scientific guidance, and available methodologies[13] against their own portfolios. The 2025 Target Setting Protocol is the result of this process and is published on behalf of the Alliance. It sets out the Alliance's recommended approach to target setting and reporting on progress towards real world emissions reductions in line with established science and members' fiduciary duty.

13 SBTi, PCAF, IIGCC PAII, CRREM, 2dii, were explored.

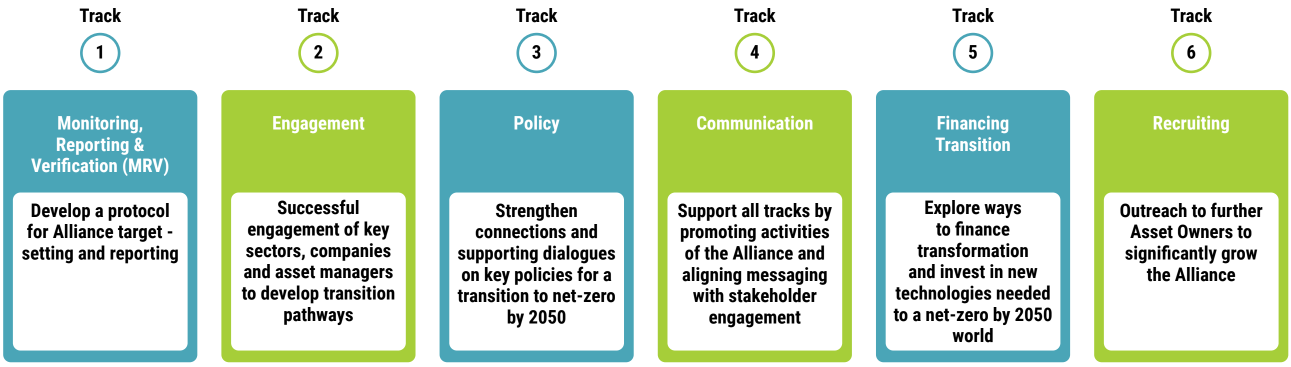


Figure 2: The 6 Alliance work tracks

1.2. Approach to 2025 Target Setting

The Alliance is committed to supporting the real economy in its transition to a net-zero world while being guided by science. A range of scientific, academic, and technical experts are engaged in and contribute to the Alliance's work. This report was produced by the technical leads within the Alliance membership with input from our global networks.

The Alliance's work provides science-based recommendations for portfolio alignment with net-zero targets. Alliance members should set targets based on recommendations outlined in the Protocol and should explain any necessary deviations. Despite the firm root in science, scaling down global climate, energy, or economic models to the level of a portfolio or economic sector is riddled with challenges. Therefore, while a science-based recommendation may be an appropriate guidepost for the average asset owner, the composition, structure, investment risks and opportunities, and return targets of a given asset owner vary significantly.

1.3. Objective of this Protocol

The publication of the Protocol sets out to address two objectives:

1. Maximise the impact of *communication with external audiences*. The Alliance aims to be reliably transparent and proactive in explaining our role, views and how we are addressing key issues and limitations of portfolio decarbonisation beyond our control. Our open approach to communication also means that we seek to learn from and build on external feedback received through public dialogue.
2. Provide a best practices playbook, which will guide and support Alliance members in implementing Alliance-wide approaches harmoniously.

1.4. Transparent, and Unique Targets best suited to Encourage Real World Reductions

Each Alliance member is unique and may identify unique levers that exist within their institutions for accelerating decarbonisation in the real world. They also differ in investment scope, strategies, internal governance structures, current exposure to certain high-emitting sectors etc. This Protocol was constructed to allow Alliance members to employ the combination of approaches that best supports their unique decarbonisation and engagement strategies within their fiduciary duty to meet risk adjusted returns. In this way the Alliance members aim to have "*transparent, and unique*" targets, which suit individual institutions, but which can also be aggregated and against which progress can be tracked.

1.5. How we operate (Alliance Governance)

The Alliance is convened by the United Nations Environment Programme Finance Initiative (UNEP FI) and the UN-backed Principles for Responsible Investment (PRI). It is supported and advised by Mission 2020 and WWF. To join the Alliance, asset owner CEOs make a public commitment to align their portfolios and engage in the Alliance. A Steering Group made up of the 7 founding asset owner members of the Alliance guide the strategic direction of the organisation. The Steering Group meets at least quarterly and, with secretariat members UNEP FI and PRI,[14] have voting rights to determine the group's strategic direction. It is chaired by one C-suite member. Strategic content reviewed by the Steering Group is submitted by the 'tracks' which are Working Groups comprising staff from all Alliance members. Any Alliance staff member, regardless of their steering group status, can take up a leadership or content development role on one or several of the 'tracks' or working groups including the working group lead role, as well as propose additional work areas. The content developed by these colleagues is then submitted to the Steering Group for review, discussion and approval.

The Monitoring, Reporting and Verification (MRV) track is co-chaired by two (2) Alliance member representatives, with sub-track working groups providing support on various aspects of content. Overall, over 25 asset owner organisations and over 100 members of their staff, several external experts, and parallel initiatives have contributed to the design of the recommendations contained in this document.

The Alliance Steering Group initially approved the 2025 Target Setting Protocol for public consultation in October 2020 and in December 2020 a revised version was approved as the Inaugural 2025 Target Setting Protocol for the Alliance. Approval by the Alliance Steering Group means that the methods, argumentation and standpoints are generally accepted by the Alliance and that the published document represents views that the Alliance is ready to engage with as an organisation.

Members are expected to issue individual targets according to the Protocol within 12 months of joining the Alliance, unless a reporting period is less than 3 months away. The maximum time window between joining Alliance and issuing a target is 15 months. In setting a decarbonisation target, Alliance members are strongly encouraged to follow the recommendations outlined in this Protocol. They are also encouraged to be ever more ambitious in their individual targets (i.e. setting sectoral targets on additional sectors beyond those identified at present as Alliance priority sectors) and use a combination of engagement and investment to support the decarbonization of the real economy.

1.6. Collaborating Initiatives

The Alliance aims to be a collaborative platform. It seeks to fill a gap connecting investor ambition and investor action on the global net-zero emissions target set in the Paris Agreement. It is not a developer of methodologies, a target validation initiative or an engagement facilitation network. Instead, the Alliance aims to link such initiatives and be grounded in the credibility of each Alliance member commitment to net-zero. With these public commitments, Alliance members hope to raise the level of ambition for action to transform the real economy. To amplify the impact of our work, we collaborate with the following initiatives:

1.6.1. Race to Zero COP26 Campaign and the Climate Ambition Alliance launched at COP25

In December 2019, at COP 25, the Alliance became a founding member of the Climate Ambition Alliance. The Climate Ambition Alliance includes investors, companies, banks, cities and regions committed to achieving net-zero emissions by 2050 at the latest.

In June 2020, the COP26 presidency launched the Race to Zero Campaign which supports all non-state actors to issue net-zero targets. The Alliance collaborated on the design of Race to Zero's minimum criteria for net-zero targets and is a part of the Race to Zero Campaign through its membership in the Climate Ambition Alliance.

14 Limitations apply.

1.6.2. COP 26 Private Finance Hub

In February 2020, the COP26 team together with the UN Special Envoy for Climate Action and Finance and Advisor to the UK Prime Minister, Mark Carney, launched the "Private Finance" agenda. The Alliance is in regular contact with the Private Finance Hub to engage on methodological developments and support the Hub's effort to guide private sector finance towards net-zero commitments.

1.6.3. Science-Based Targets Initiative

The Alliance and the Science-Based Targets Initiative - Finance entered into a working collaboration in June 2020. SBTi-Finance, underpinned by the Partnership for Carbon Accounting Financials (PCAF) methodology, supports the validation of financial institution climate targets. The Alliance and the SBTi-Finance will collaborate to:

i. understand the available methodologies for financial institutions in target setting;
ii. align their frameworks/Protocol; and
iii. collaborate on 1.5°C pathways required for investors.

The Alliance and SBTi-Finance share a mutual subset of members. SBTi-Finance and the Alliance agree to ensure that the work required by both initiatives is aligned and that efforts are harmonized to enable asset owners and other investors to engage productively with the two initiatives.

1.6.4. Partnership for Carbon Accounting Financials

The Alliance and PCAF entered into a working arrangement in September 2020. PCAF is working to establish a carbon accounting standard for loan and investment portfolios.[15] Measuring and disclosing the GHG emissions associated with the lending and investment activities of financial institutions is foundational to creating transparency and accountability and to enabling financial institutions to align their portfolios with the Paris Agreement. PCAF methodologies underpin SBTi-Finance approaches. The Alliance has concluded a working arrangement with PCAF to work together collaboratively to develop new methodologies, such as on sovereign debt, as part of the MRV track.

1.6.5. IIGCC's Paris Aligned Investing Initiative

IIGCC's Paris Aligned Investing Initiative (PAII) brings together asset owners and asset managers to explore methodologies and approaches for investment strategies and portfolios for aligning financial systems with the Paris Agreement. IIGCC was invited to the Inaugural MRV track workshop in February 2020 and has made a presentation of its work to the Alliance. Several members are contributing to both initiatives. The Alliance considered IIGCC's PAII Net Zero Investment Framework in preparation of the Protocol and is utilising outcomes from the PAII project as the foundation of the work outlined in this document. The Alliance has also submitted a shared response to the IIGCC consultation. There is a common understanding of the levers which investors have at their disposal to accelerate collective efforts to limit global warming to 1.5 degrees. The scope of the PAII is somewhat broader and accommodates a range of asset owner and asset manager characteristics. The Alliance proposes more specific target setting guidelines building on the PAII approach.

1.6.6. 2dii's Evidence for Impact

The 2 Degrees Investing Initiative (2dii) Evidence for Impact initiative aims to support the Alliance and offer criteria and tools for tracking the impact of investor decarbonisation efforts in the real economy. By signing up to the Alliance, investors indicate their willingness to trial the EU Horizon 2020 InvECAT tool, a tool measuring impact and designed in partnership with 2dii. 2dii has also initiated a working group to further develop a climate impact measurement tool of which several Alliance members are a part.

15 carbonaccountingfinancials.com/about#our-mission

1.6.7. The Climate Science Community

In order to be able to set sector targets, the Alliance required sector pathways from the scientific community that could be readily applied in the investment decision making process. This meant that climate models needed to be translated into the sector classification schemes commonly used by investors, including MSCI's Global Industry Classification system (GICs), the Bloomberg Industry Classification System (BICS) and others. This process required several months of detailed dialogues with the Potsdam Institute for Climate Impact Research (PIK) International Institute of Applied Systems Analysis (IIASA), Stockholm Resilience Centre (SRC), Stockholm Environment Institute (SEI), World Economic Forum Missions Possible Platform (WEF MPP) and the Energy Transition Commission (ETC), World Resources Institute (WRI), Transition Pathway Initiative (TPI), Exponential Roadmap authors, private consultancies, COP26 sector teams and others. These dialogues identified the One Earth Climate Model (OECM) as the most effective and readily available tool for establishing such pathways. The University of Technology Sydney Institute for Sustainable Futures (UTS/ISF), the OECM model developer, with reviews from SBTi, PIK, RMI, SRC, ETC, WWF, WRI, Expo Roadmap, Rocky Mountain Institute (RMI), and COP26 sector teams engaged in an effort to adjust the model outputs into financial sector classification schemes. Cambridge Econometrics, and the Investor Leadership Network (ILN)'s 1.5°C model and the IEA's 'Well Below 2 Degrees' models were also included as comparators in this analysis.

1.6.8. Climate Action 100+

Climate Action 100+ (CA100+) launched in December 2017. Delivered through five partner organisations PRI, AIGCC, IGCC, IIGCC, and CERES, CA100+ is an investor initiative aiming to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. Over 500 investors with over $52 trillion in AUM are engaging 160+[16] companies to request the companies to: reduce emissions in line with Paris Agreement targets; improve governance and strengthen climate-related financial disclosures in line with TCFD recommendations. The target companies include 100 'systemically important emitters', accounting for two-thirds of annual global industrial GHG emissions, alongside more than 60 others with significant opportunity to drive the clean energy transition.

The Alliance is working to partner with CA100+ to support the net-zero focus, collaborate on sector specific decarbonisation pathways, and support collective investor action. Collaborative engagement enhances investor influence,[17] builds expertise, and improves efficiency of the engagement process by sharing the workload, so the Alliance recommends its members join the CA100+ group.

1.6.9. WEF Mission Possible Platform (and its partners)

The World Economic Forum through its Mission Possible Platform has demonstrated that net-zero is possible for the so called 'hard-to-abate' sectors. Mission Possible has organised corporate leaders into 'industry groups' which are exploring sector pathways to net-zero supported by the Energy Transition Commission (ETC) and Rocky Mountain Institute (RMI). In February 2020, the Alliance began engaging the platform and its contributing partners. The Alliance is working to align sector pathway reduction outcomes and engagement efforts with companies and bottom up analysis with the WEF's real economy industry working groups.

16 As of September 2020.

17 Collaborative engagement will be undertaken with proper respect of antitrust laws and regulations or applicable regulatory requirements.

1.6.10. Task Force on Climate-Related Financial Disclosures

The Task Force on Climate-related Financial Disclosures (TCFD) recommendations are designed to solicit consistent, decision-useful, forward-looking information on the material financial impacts of climate-related risks and opportunities, including those related to the global transition to a lower-carbon economy. They are adoptable by all organisations with public debt or equity in G20 jurisdictions for use in mainstream financial filings. The TCFD is also exploring a 'Temperature Alignment' metric and tool. The Alliance supports this objective and has set out a supportive call to Methodological Providers to begin to develop tools to address gaps which exist in emissions and temperature assessments to date.[18] TCFD also provides guidance on climate scenario analysis, including guidance to draw on a range of scenarios. Further, the PRI's reporting framework has climate indicators incorporating TCFD and the Alliance is co-ordinating on PRI reporting.

1.6.11. The Investor Agenda and PRI's Inevitable Policy Response

The Alliance will also coordinate with The Investor Agenda network which is focusing on policy-maker engagements and investor climate action expectations. It has also engaged with PRIs IPR which can provide policy related scenario intelligence to Alliance members, as well as many other organizations, too numerous to list in this document, including NGOs, regulators and data service providers in order to drive change. We invite all interested organisations to contact us to discuss impactful collaboration opportunities.

18 Alliance Call for Comment issued April 2020. unepfi.org/net-zero-alliance-call-for-comment-alliance-methodological-criteria/

2. Theory of Change: our potential management actions

Asset owners have a unique role to play in today's financial landscape. They have long-term horizons and invest across a wide range of asset classes and sectors. As such, they are acutely vulnerable to the systemic disruptions that climate change will cause in ecosystems, societies and economies. They also have a key role to play in catalysing decarbonisation of the real economy as well as in boosting climate-resilience and accelerating the energy transition by providing the capital necessary for business transformation.

The five years since COP21 have seen an unprecedented surge in investor concern over the need for accelerated climate action. Partly in response to investor pressure, climate targets have begun to appear in regulatory frameworks, public policy, corporate reporting and the various other spheres of influence that investors have at their disposal including via their portfolio construction and individual company-level investment decisions.

The number of climate-related pledges and targets in the investment industry has increased and the concept of aligning investment portfolios with a 1.5°C decarbonisation trajectory has gained significant interest and attention. Investors, data providers, academia and other stakeholders are focusing their efforts on how this can be achieved and measured, as well as on the strategies and mechanisms best suited to balancing risks and opportunities associated with the energy transition.

2.1. Investor impact

In general, investors have stewardship rights and responsibilities to ensure that boards of companies are accountable for their oversight of financial capital as well as environmental, social or governance (ESG) parameters applied in the day-to-day running of investee companies. Investors also have an impact on companies' access to capital, and can influence the management of assets they invest in or finance, which in turn have a direct impact on these parameters in the real economy. Hence, investor impact can be described as the impact an investor's activity has on a company's activity, project or asset which in turns leads to measurable outcomes in the real world.

Kölbel, Heeb et al (2019) describe three mechanisms that investors can use to impact companies; *engagement*, *capital allocation*, and *indirect impacts*. These mechanisms can impact company activities in two ways, either by changing the *level* of the company activity or by changing the *quality* of the company activity. The latter relates to improving the ESG performance of a company's activity whereas the former relates to increasing the net positive impacts a company's activities have in the real world.

Caldecott (2020) argues that in order for a financial service or product to make a difference to the real economy transition to environmental sustainability the activity must, among other things, make a clear and measurable difference by either enabling company adoption of sustainable practices, or reducing or increasing the cost of capital for green or polluting activities.

The important role of institutional investors and financial markets in limiting global warming is widely recognised. Article 2.1c in the Paris Agreement commits all signatories to; *"Making financial flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development"*. Achieving the commitment set out in Article 2.1c would require a combination of allocating capital differently across the economy, allocating capital to assist the decarbonization of individual companies particularly in hard-to-abate sectors and also driving change in individual company behaviours across all economic sectors.

Mechanisms and strategies available to investors

There is currently limited empirical evidence showing how investor climate pledges, strategies and actions contribute to emission reductions in the real economy. This is partly due to methodological uncertainty and also the relatively short period over which such investor activities have been undertaken. There are several mechanisms and strategies available for investors wanting to reduce the emissions intensity or absolute emissions profile of their investment portfolios. It is, however, important to understand the difference between reducing emissions in an investment portfolio and reducing emissions in the real economy. While all these mechanisms and strategies may contribute to lowering investment risks, meeting customer demands or supporting climate targets, they do not contribute equally to lowering emissions in the real economy.

Lütkehemöller et al (2020) identify, based on existing literature, the following factors that influence the likelihood of creating impact: the level of control over the investee company, reaching critical mass by investors coming together, the size and recognition of the investor taking action, how easily an investor's action can be offset by other investors, the cost for the company of the requested reform by the investor, the investee's previous experience with sustainability issues and its reputational concerns, and finally, how liquid the market is. The Alliance seeks to draw on the most effective, legally compliant strategies to enable change and to benchmark progress to show the global investment community how investors can drive real world emissions reductions.

2.1.1. Engagement

Company engagement with respect to climate issues is a structured dialogue with a company that has the intention of improving the company's sustainable value creation and to support its transition to low carbon and net-zero business strategies. Engagement is possible as a shareholder as well as a bondholder and may include submitting shareholder resolutions and voting at AGMs. Additionally, bondholders have influence during due diligence. Engagement may directly lead to a company changing its behaviour and is a powerful tool for investors to achieve real world impact. It is the mechanism through which the impact on real world emissions is most likely to materialise.

Engagement is the mechanism where the most empirical evidence can be found to prove its effectiveness. Kölbel, Heeb et al (2019) list five different empirical studies that analyse the extent to which companies comply with shareholder engagement requests. Results from all of these studies show a success rate between 18–60% depending on the approach taken and data used. More importantly, these studies list three important factors that may influence the success of an engagement: the cost of the requested change for the target company, the degree of investor influence and the company's level of ESG experience. These findings corroborate what other studies have found and investor experience to date.

Meaningful engagement efforts require significant resources and perseverance from the investor as it can take several years to achieve the intended outcome, depending on the issue at hand. This also highlights the importance that investors set clear objectives, timelines and escalation tactics as part of their engagement strategies and connect it to their voting practices. Given this consideration, and that the success of an engagement largely depends on the level of control the investors have over the investee company, a positive change is more likely if investors come together in collaborative engagement efforts.[19] Collaborative initiatives such as Climate Action 100+ have shown progress in recent years resulting in improved climate-related pledges and strategies from targeted companies many of which have now made commitments to net zero.

Engagement is not limited to companies in public equity and bond markets. It can also be pursued in other asset classes and towards different stakeholders. Engaging with tenants is an important part of a decarbonisation strategy for investors with direct real estate holdings in order to drive emission reductions from a whole building or neighbourhood perspective. Engagement can also focus on sectors and on policy advocacy to drive broader change in the real economy. For asset owners, engagement with asset managers is important to drive change across the investment value chain. In this type of asset owner-led engagement, agency problems may arise, where the incentives and actions of the agents—the asset managers—do not align perfectly with the interests of the asset owner. For example, Bebchuk et al. (2017) suggest that in relation to investor stewardship "*investment managers can be expected to underutilise the tools they have to engage with corporations*". This tendency reinforces the importance of an asset owner-based theory of change,

19 Collaborative engagement will be undertaken with proper respect of antitrust laws and regulations or applicable regulatory requirements.

asset owner-led engagement with corporations, and asset owner-led engagement with asset managers, supported by advocacy with policy makers.

2.1.2. Capital allocation strategies

The primary focus of capital allocation strategies is to re-allocate capital between companies, sectors and asset classes based on certain restrictions and parameters linked to investment goals aligned with climate targets.

Divestments

Divestment is when an investor divests from a company or sector due to its specific characteristics, most often as the company's business model or the whole sector is not aligned with the values or financial targets of the investor. It can also be part of an escalation tactic and a last resort in an engagement strategy where the requested change has not materialised. Divestment can be applied to several asset classes but is generally most applicable to listed equities and bonds.

Although widely adopted by investors, divestment is sometimes critiqued as an abdication of stewardship responsibilities. Divestment limits the opportunity to impact positively on company behaviours and, critics argue, does not lead to measurable outcomes in the real economy. Advocates often argue that divestment strategies can increase the cost of capital, lower the market value of targeted companies and contribute to reputational risk for companies and sectors with poor ESG practices or unsustainable business models which can incentivise companies to change behaviour. Although such indirect impacts on corporate conduct and the cost of capital possible in theory, there is currently limited empirical evidence to support this assertion at present. Furthermore, if adopted, divestment strategies should be previously evaluated as to their compatibility with antitrust and other regulatory laws and regulations

Even though indirect impacts such as reputational risk have weak empirical evidence, several studies show that using these approaches can impact asset prices and incentivise companies to improve their ESG practices. For example, Cojoianu et al (2019) find that cumulative oil and gas divestment pledges (not limited to investor pledges) in a country are negatively related to new capital flows to oil and gas companies. However, the size and likelihood of the change to materialise seems to be strongly dependent on reaching a critical mass of investors applying the same divestment strategy, how easily the action can be offset by other investors and the company's cost to improve their ESG practices – the higher the cost to improve the less likely it is to happen. Lütkehemöller et al (2020) argue that divestment is more likely to create a larger impact in less liquid private markets and in the corporate lending market.

Investors wanting to contribute to emission reductions in the real economy could conduct selective divestments as part of their engagement strategy or as part of a broader strategy where the contribution to the real economy comes from how the proceeds from the divestment is used. If the proceeds are used in such a way that they contribute to a change in the financing cost or liquidity for activities considered to yield positive impacts on the real economy it could be argued that a divestment strategy can contribute to real world change.[20]

It should be noted that the growing focus on sustainable investments, new low-carbon benchmarks and the implementation of new regulatory initiatives, such as the EU Taxonomy, may lead to increased re-allocations away from high-emitting and polluting sectors as a risk mitigation strategy and thus shed new light on capital reallocation as an effective mechanism to change company behaviours.

Sector weighting and best-in-class strategies

Sector weighting and best-in-class strategies can take different forms and shapes but normally relates to re-allocating capital within or between sectors based on companies' ESG and climate performance. In a broader application these considerations could be extended to the asset class level and be part of the investor's strategic asset allocation (SAA), subject to their fiduciary duty and investment goals to generate risk adjusted returns.[21]

20 Over 1,200 institutions with USD 14 trillion in AUM have joined the Divest/Invest initiative. The Alliance welcomes greater collaboration with Divest/Invest committed institutions. divestinvest.org/

21 Strategic asset allocation is a portfolio strategy whereby the investor sets target allocations for various asset classes and rebalances the portfolio periodically. The target allocations are based on factors such as the investor's risk tolerance, time horizon, and investment objectives.

Understanding a company's performance relative to its peers in the same sector allows an investor to identify the most 'carbon efficient' companies and re-allocate capital from the worst to the best performers. The likelihood of such strategies contributing to emission reductions in the real economy remains uncertain as the empirical evidence is limited. The rationale is similar to other capital alignment approaches where the argument is that these 'best-in-class' leaders would enjoy a lower cost of capital and higher market values as they are recognised for their positive contribution to climate targets, and in reducing climate value at risk, by a growing group of investors. Poor performers would meanwhile see their cost of capital increase and market values decrease, and hence be incentivised to improve their ESG performance.

The likelihood of these strategies contributing to measurable impacts in the real economy depends on the proportion of investors applying the same strategy (i.e. achieving critical mass) and the cost for the company to implement the necessary reforms to improve their performance.[22]

Investing in climate solutions

Decarbonising existing industries is not enough to limit global warming to 1.5°C and reach net-zero around 2050. Significant investments into climate solutions are required and will also be a prerequisite for certain industries to decarbonise. Climate solutions are investments in economic activities that contribute substantially to climate change mitigation. These are solutions that reduce greenhouse gases by avoiding emissions and/or by sequestering carbon dioxide already in the atmosphere, or investments in climate change adaptation that contributes to enhancing adaptive capacity, strengthens resilience and reduces vulnerability to climate change.

The impact rationale is that increasing investments into climate solutions could contribute to improving the liquidity and lowering the cost of capital for green activities. Whether this holds in practice depends on several factors. For example, investors are more likely to reduce real economy emissions if they target companies that are already constrained in their growth prospects by external market conditions such as access to financing (Kölbel, Heeb et al, 2019).

Investors can also contribute to a broader change by collaborating with actors across the whole financial value chain to enhance the supply side of finance into climate solutions, increase liquidity and lower financing costs across sectors through systemic change.

It is important to note that investing to foster climate solutions in hard-to-abate sectors may result in increased portfolio emissions through the allocation of capital to carbon intensive industries. As climate solutions are deployed by the investee, emissions should reduce during the investment holding period, but this is likely to cover a multi-year period as the industrial solutions required are lengthy to implement. Should the investor decide to retain these investments, the net increase in portfolio emissions may persist beyond 2025. This illustrates that investment in certain climate solutions may have a positive decarbonisation impact on the planet, but slow the rate of investors' portfolio decarbonisation.

2.2. The Alliance commitment and our work to contribute to real world outcomes

The net-zero commitment made by each member of the Alliance has several distinguishing features, including a strong emphasis on emissions reductions in the real economy. Transformation in the real economy is a must if we are to reach the ambitions set in the Paris Agreement. Holding a large proportion of low-carbon assets or divesting out of high-emitting ones will not be enough. As members of the Alliance we have come together not only in an effort to reduce emissions from our investment portfolios but also to ensure that these efforts lead to measurable outcomes in the real economy, which would also contribute to lower investment risks and create new investment opportunities.

22 In all cases, Alliance members will implement their respective strategies with proper respect of antitrust laws and regulations or applicable regulatory requirements.

Although impressive progress has been made in recent years, translating complex climate models into investment portfolios is not straight forward. The limited availability of reliable data is a key issue which provides for asymmetrical information and challenges for investment decision making. The significant increase in climate risk mitigation strategies, regulatory measures and disclosure requirements are all important and contribute to a better understanding of the financial stability. However, relying on these measures to actively contribute to emission reductions in the real economy is, as described in the previous sections, highly uncertain and the empirical evidence is limited. That does not mean that these measures are not worthwhile or necessary. Investors have other objectives and restrictions to consider that go beyond real world impact. All strategies and mechanisms asset owners have available (engagement, capital reallocation, investing in climate solutions etc.) will contribute to improving the long-term risk-return characteristics of the portfolio.

Each Alliance member has its own unique characteristics which must be carefully considered. Asset and liability management (ALM) constraints, regulation, market conditions, risk-return appetite and investment objectives all differ between members and regions. This will impact how investment portfolios can be changed and which strategies and mechanisms can be implemented.

It is not the role of the Alliance to set descriptive restrictions or control the strategies deployed by each member to contribute to the overall objectives. Instead, each member selects the strategies and uses the mechanisms that, based on their own unique circumstances, will contribute to the commitment and objectives of the asset owner. The freedom for each member to select and implement its strategy is important to avoid that antitrust laws and regulations are breached. It also ensures that members can select engagement strategies suitable to them with view to the requirements of applicable regulatory laws and regulations. Transparent reporting will become important and members must be able to argue for how their strategies which reduce portfolio emissions also contribute to real world impact, even though the impact and evidence may still be difficult to measure or disclose.

As asset owners, we have a unique role at the top of the investment value chain and we acknowledge the responsibilities and opportunities that come with this role. We further acknowledge that significant issues, limitations and constraints exist and that we do not have all the answers to these. But it is our belief that progress is more important than perfection and that we cannot wait. We need to start taking action now, despite the limitations. As methodologies and data availability improve, we will refine and adjust our strategies.

3. Scope covered by the 2025 target setting protocol

3.1. Four-part target setting structure to real world contribute to GHG emissions reductions most effectively

As described in the sections above, reducing GHG emissions and having real workd impact in a global, diversified investment portfolio is a complex challenge – no simple solution exists.

The members of the Alliance MRV track reviewed a large number of known and available methodologies for target setting.[23] While several approaches exist, no single stand-alone methodology was determined to be suitable to drive GHG emission reductions in the real economy on a long-term basis. Furthermore, it is generally thought that a multi-faceted approach is likely to be more successful in addressing a challenge as complex as the net-zero transition.

Given this background, the Alliance decided on a 4-part approach in the 2025 Target Setting Protocol. The implementation of each part will have a particular impact on investee companies and emissions. When combined, the four parts enable an asset owner to contribute to the desired transformation towards a net-zero economy. Implementing all 4 parts of the Protocol will have the greatest impact. Alliance members are recommended to set targets on all 4 parts. The minimum expectation is that Alliance members will set targets on three.

The 2025 Target Setting Protocol consists of 4-parts:

23 Alliance Methodological Criteria Call to Comment; unepfi.org/net-zero-alliance-call-for-comment-alliance-methodological-criteria/

Engagement Targets

- Engagement with 20 companies with a focus on highest emitters or those responsible for 65% of emission in portfolio (either Direct, Collective, or via Asset Manager)
- Contribute to
  - Sector - Engagement with corporates in target sectors
  - Asset Manager - Each member to participate in at least one engagement with the pre-identified (largest) 4 Asset Managers
  - Alliance position papers

AOs to set action targets on policy advocacy

Sector Targets

- Intensity-based reductions on Alliance priority Sectors (O&G, Utilities, Steel, and Transport – Aviation, Shipping, Heavy and Light Duty Road)
- Scope 3 to be included wherever possible
- Sector specific intensity KPIs recommended
- Sectoral Decarbonization Pathways used to set targets

1.5 degree
Net-Zero by 2050
Real World Impact

Sub-portfolio
(later Portfolio) Emission Targets

- -16% to -29% CO_2e reduction by 2025 (per IPCC 1.5°C SR scenarios) on Listed Equity and Publically Traded Corporate Debt, with the same recommended for Real Estate and/or CRREM national pathways used
- Covers Portfolio Emissions Scope 1 & 2, tracking of Scope 3
- Absolute or intensity-based reduction against 2019 base year recommended

Financing Transition Targets

- Report on progress on climate-positive investments
- Focus on renewable energy in Emerging Markets, Green Buildings, Sustainable Forests, and Green Hydrogen, among others
- Contribute to activities enlarging the low carbon investment universe and building solutions

(T1) Targets at the Sub-Portfolio level will develop into an overarching "portfolio target"[24] when sufficient coverage is reached. This target draws a ring fence around all emissions in an Alliance member's portfolio (for which there are currently existing assessment methodologies) and ensures emissions reductions over time across the portfolio.

(T2) Specific sector targets on high emitting sectors reflect the specifics of these sectors, their trade-offs with other sectors in the global economy, and the role they play in the transition to a net-zero economy. Sector targets anchor investors' portfolio emissions reductions requirements to emissions reductions requirements in the highest emitting sectors of the real economy. Sector targets define Alliance members' climate risk appetite in sector exposures. These targets also help limit exposure to stranded assets and direct capital towards climate change leaders within a sector. Additionally, sector-level emissions targets clearly define a shared expectation on the pace of business transformation across a similarly situated group of companies.

(T3) Engagement targets are incorporated into our dialogues with companies, sector organisations and asset managers. In addition, asset owners have a role advocating for regulatory measures with policy makers to accelerate the transition. Engagement targets support the Alliance's theory of change, which is to use the power of collective ownership to encourage real economy actors in high emitting sectors to reduce their emissions. Pooling engagement forces, resources, and capacity enables the building of a coherent and persuasive voice of shareholder and bondholder capital. Companies position themselves relative to their peers, customers and supply chains, so the Alliance engages with an entire sector and sector-specific value chains to support companies in their business transition efforts. As a result of the importance placed on engagement, **the Alliance requires all members to set engagement targets.**

24 The sub-portfolio targets will become an overarching portfolio target whenever Alliance methodologies cover a sufficient proportion of asset classes within the portfolio (see sub-portfolio target setting on a concrete planning on asset class coverage).

Financing transition, allocates the capital required to transition to net-zero. Financing for the transition includes investment in the supply side of "net-zero solutions". Members of the Alliance are willing to provide capital for the transition but members also fear an increasing price bubble on these assets if demand is acutely quantified. Thus, the Alliance aims to increase the supply side of low carbon assets. The available options are numerous, and include exponential technologies in renewables, green hydrogen, energy storage systems, carbon capture solutions as well as near zero emission buildings. The financing target leverages the financial might of asset owners to de-risk and finance the technologies and research and development that will accelerate the net-zero economy transition.

The current Protocol focuses on an asset owner's Scope 3 emissions as this constitutes roughly 97% of their emissions. Thus, portfolio emissions or Scope 3 is the appropriate starting place for driving real world action. In the next iteration of the Protocol Scope 1 and Scope 2 will be considered.

3.2. Portfolio Covered by Commitment

Alliance members detailed in a Guidance document issued September 2019 that the Alliance commitment should cover "*all assets under management (and on balance sheet) managed by the asset owner while exercising asset allocation in fiduciary duty*", this includes:

- inhouse managed money;
- third party managed money (e.g. ETFs, mutual funds, active/passive);
- shareholder money; and
- policyholder money (in cases where the asset allocation is carried out by the asset owner).

but excludes:

- money managed by group owned asset managers for third party clients. This is not considered asset owner money as it does not appear on the balance sheet of the asset owner. The Alliance still recommends that members engage third party investment partners in discussion on net-zero ambitions and associated target setting.[25]

3.3. Asset classes covered in the Protocol

For the period 2020–2025, Alliance members cover listed equity and publicly traded corporate debt and real estate holdings, adding additional asset classes as these become available

The Protocol requires members to cover certain asset classes wherever methodologies and data are available. Asset class coverage will grow over time. Each Alliance member can define a larger scope for coverage if the member feels comfortable to set targets on this wider scope. The roll-out to further asset classes will depend on several criteria: data availability, data transparency & accuracy as well as established methodologies.

25 Alliance members may include unit linked products when they retain full investment discretion for these products.

Alliance members identify the following main asset classes across member portfolios:

Asset Class[26]	Coverage
Listed Equity	2020–2025 Protocol, issued 2020
Publicly traded Corporate Debt	2020–2025 Protocol, issued 2020
Real Estate (equity)	2020–2025 Protocol, issued 2020
Infrastructure incl. Renewables (equity)	2020–2025 Protocol, issued 2021
Sovereigns, Sub-Sovereigns & Multinationals	2020–2025 Protocol, issued 2021[27]
Private Equity	As methodologies & data availability develop
Unlisted (private) Corporate debt	As methodologies & data availability develop[28]
Mortgages	As methodologies & data availability develop
Covered bonds	As methodologies & data availability develop
Other	

The long-term target is to develop methodologies for target setting in most asset classes listed above. Sub-portfolio targets will be referred to as simply 'portfolio targets' when available methodologies and data cover >85% of assets. While the methodology for listed/ publicly traded versus unlisted (private) equity and corporate debt should be consistent, the Alliance decided to start with publicly traded companies. The reason for starting with publicly traded companies is that data is more readily available than for unlisted assets. Data for the real estate sector are also considered robust enough to enable target setting, although comprehensive efforts will be required by members to gather relevant tenant-owned emission data.

Alliance members are considering that Sovereign Debt and Infrastructure constitute the next priority asset classes to be covered by the Protocol created by the end of 2021.

3.4. Temperature alignment methods

The Alliance sees large potential in temperature alignment methods to incorporate systematically forward-looking data. As these methodologies are still evolving and there is no recognised global standard, it is too early to set temperature-related targets. The Alliance expressed the need for better and more aligned methods in a spring 2020 Call for Comment.[29] As these methodologies evolve, we will consider when it may become appropriate to utilise these approaches to guide engagement dialogue with companies as well as provide an indication of portfolio alignment. Until that time, the Alliance will rely, when helpful, on temperature scoring methodologies to identify portfolio leaders and laggards.[30]

3.5. Portfolio Company Alignment Methods (e.g. CA100+ Benchmarking)

The Alliance recognises the value of the work of many other initiatives, including the Science Based Targets initiative, Transition Pathway Initiative, the Paris Aligned Investor Initiative's Net Zero Investor Framework, CA100+'s corporate benchmark and The Investor Agenda Investor Climate Action Plans Expectations. The Alliance looks forward to collaborating further as this Protocol, and these initiatives, develop.

26 Please refer to the comprehensive review of alignment methodologies catalogued and contrasted by Institut Louis Bachelier in The Alignment Cookbook - A Technical Review of Methodologies Assessing a Portfolio's Alignment with Low-carbon Trajectories (2020)

27 The Alliance also seeks to align and build on the efforts of the IIGCC PAII Framework which discusses Sovereigns.

28 PACTA methodologies have been presented as potentially suitable for this asset class and will be explored in next phase for applicability.

29 Methodological Criteria of Call for Comment available at: unepfi.org/net-zero-alliance-call-for-comment-alliance-methodological-criteria/

30 Please also refer to the Measuring Portfolio Alignment Report for further discussion; tcfdhub.org/wp-content/uploads/2020/10/PAT-Report-20201109-Final.pdf

4. Translating net-zero into pathways

4.1. Balancing high ambition, science and the real economy

Members of the Alliance have committed to 1) transitioning their investment portfolios to reflect net-zero GHG emissions in the real economy by 2050 and 2) achieving this especially through advocating for, and engaging on corporate and industry action, as well as public policies, for the low-carbon transition of economic sectors in line with science and under consideration of associated social impacts. Defining net-zero pathways must take both goals into account, while also considering implications for a Just Transition.

The integration of the commitment via engagement is considered a core component to assure that not only the Alliance members' portfolios transition to net-zero, but that the Alliance members also have an impact on the real economy. A decarbonisation of portfolios could be easily achieved by selling carbon intensive investments. However, it is highly questionable if such actions alone would have a positive impact on the real economy. Additionally, it might undermine Alliance members ability to engage with corporates and effect emissions reductions in the real economy. There are also sectors of the economy and corporates where engagement will ultimately have limited to no impact. As such, an Alliance members' sole reliance on an engagement strategy might not allow them to achieve net-zero emissions by 2050, while at the same time expose their portfolios to high transition risks.

This is particularly important as only few corporates today have announced net-zero commitments and, of those who have, fewer have articulated intermediary targets for 2025. Nevertheless, we expect that today's efforts by corporate pioneers will turn into a groundswell over the next 5 years as momentum is building in the real economy. We note that 50 of the systemically important emitters in the Climate Action 100+ cohort have set self-described net-zero goals which is an indication of the progress which is possible.

We also expect that, by 2025, Governments will have further advanced by turning their net-zero pledges into policies supporting the real-world economy in its transition.[31]

Thus, the 2025 interim target must be ambitious enough to signal an Alliance member's expectations while taking into account that the real economy is only just beginning its net-zero transition.

Further, asset owners are not created equal in terms of business mix, regulatory aspects, investment goals and management approaches. Therefore, a one-size-fits-all approach is not productive. Alliance members have:

1. Different starting points in terms of portfolio carbon emissions,
2. Diverse liability constraints,
3. Diverse sector allocations which may not reflect the global investment universe and may be geographically concentrated,
4. Different maturity profiles for the credit portfolio—constraining the ability to reinvest in greener alternatives,
5. Different levels of new business and growth,
6. Varying investment approaches and turn-over restrictions (active management versus buy and hold strategies).
7. Varying objectives: Including that some investors may invest in the decarbonization of hard-to-abate sectors while others may prefer to avoid such sectors

31 The Alliance notes that jurisdictions considering net-zero legislation account for over 50% of global GDP, there is still a need for binding legislative and/or regulatory targets to ensure progress. Alliance welcomes further government action in this respect. eciu.net/analysis/briefings/net-zero/net-zero-the-scorecard

Thus, in the short-term, some Alliance members may choose lower range reduction targets (following an 's' shaped curve, rather than a linear pathway to net-zero) in order to support the transition and exercise active ownership. Such Alliance members would stay invested in select high emitting companies that respond positively to engagement and have set ambitious decarbonization goals coupled with robust transition plans.

Over the medium term, it is expected Alliance members' carbon profiles converge in line with science as the above investment constraints become less of a barrier, and importantly, governments as well as corporates make progress in addressing the challenges of climate change.

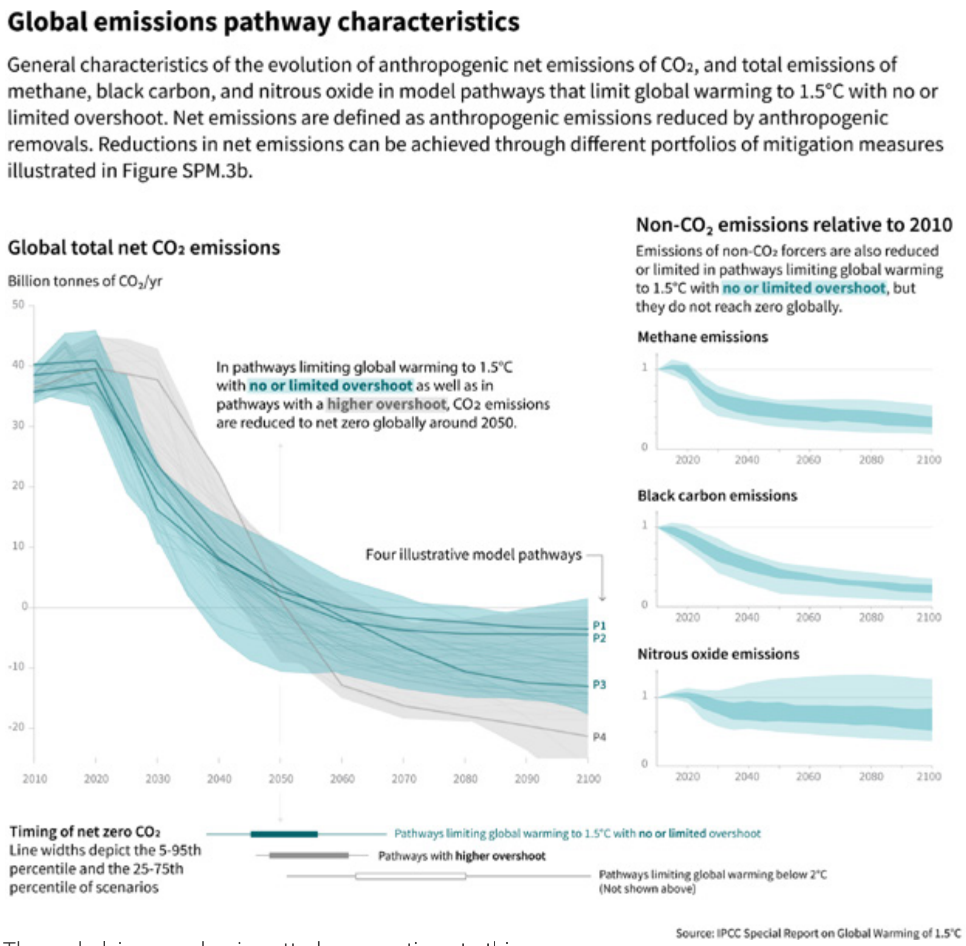
4.2. Scenario-derived emission trajectory considerations for sub-portfolio targets

The Alliance assessed IPCC SR1.5°C pathways to inform individual members in their target setting approach for portfolio emissions reductions. To limit global reliance on atmospheric carbon removal, it found emissions reductions for the period 2020 to 2025 should range at least between -16% to -29% (after removing any overlap with 2°C scenarios emissions reductions for the same period) as outlined in the criteria below.

The Alliance commitment refers to "*net-zero GHG emissions by 2050 consistent with a maximum temperature rise of 1.5°C above pre-industrial temperatures, taking into account the best available scientific knowledge including the findings of the IPCC*." To this end, we heavily consulted several academic institutions on the scenarios and conclusions of the *IPCC Special Report on Global Warming of 1.5°C to inform the recommended emissions reduction range.*.[32]

Additional efforts were also undertaken to ensure that Alliance targets have been informed by the best-available science. The following sections describe how scientific climate, energy and other models were used to inform Alliance decarbonization rates.

32 IPCC (2018) 'Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty:' ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/.



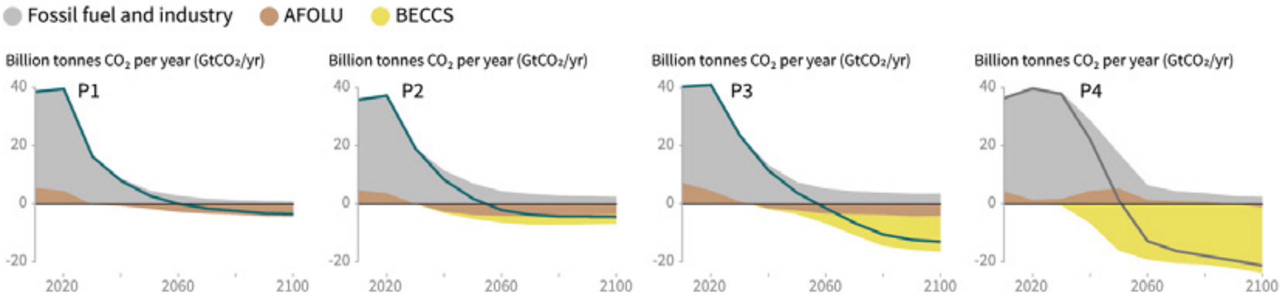
The underlying, academia-vetted assumptions to this are:

- Use of *no and low overshoot scenarios* only (often referred to as P1, P2, P3 type scenarios)
  - **Noting that AR6 scenario results** are expected to be roughly in line with SR15 scenarios.
- CO_2 trajectories provide the blueprint for all GHGs; the Alliance's goal is net-zero 2050 for all GHGs, which is more ambitious than the climate scenarios, which largely see net-zero for non-CO_2 GHGs later than 2050. However due to data reporting practices at present, data is typically reported in CO_2e. Thus, the Alliance will need to set targets on CO_2e. This has the effect of somewhat balancing out the net-zero end date between GHGs given practical constraints for tracking GHG emissions reductions as CO_2e.
- Global pathways are sufficient when portfolios are diversified regionally and by sector.
- When scenarios did not provide data for 2015, 2025, 2035 etc the data was linearly projected, a method that was supported by colleagues consulted at CICERO, PIK, among others.
- To be less sensitive to the assumptions and narratives of individual scenarios, the Alliance will rely on the median of a sub-set of scenarios.
- Filtering scenarios which foresaw significant reductions from 2015–2020 as emissions reductions did not occur during these years as these scenarios earlier predicted (aside from the impacts of the Covid-19 pandemic).
- Acknowledging that scenarios with high temperature overshoot (P4-type pathways) have an interquartile range of -4.2% (75% quartile), -12.6% (50% quartile), -18.6% (75% quartile) and rely on usually more than double the amount of carbon emissions removed from the atmosphere. The Alliance therefore derived a floor value of -16% from the median emission reduction in so-called "Lower 2°C Scenarios" which rely on limited carbon removal.

Characteristics of four illustrative model pathways

Different mitigation strategies can achieve the net emissions reductions that would be required to follow a pathway that limits global warming to 1.5°C with no or limited overshoot. All pathways use Carbon Dioxide Removal (CDR), but the amount varies across pathways, as do the relative contributions of Bioenergy with Carbon Capture and Storage (BECCS) and removals in the Agriculture, Forestry and Other Land Use (AFOLU) sector. This has implications for emissions and several other pathway characteristics.

Breakdown of contributions to global net CO_2 emissions in four illustrative model pathways



P1: A scenario in which social, business and technological innovations result in lower energy demand up to 2050 while living standards rise, especially in the global South. A downsized energy system enables rapid decarbonization of energy supply. Afforestation is the only CDR option considered; neither fossil fuels with CCS nor BECCS are used.

P2: A scenario with a broad focus on sustainability including energy intensity, human development, economic convergence and international cooperation, as well as shifts towards sustainable and healthy consumption patterns, low-carbon technology innovation, and well-managed land systems with limited societal acceptability for BECCS.

P3: A middle-of-the-road scenario in which societal as well as technological development follows historical patterns. Emissions reductions are mainly achieved by changing the way in which energy and products are produced, and to a lesser degree by reductions in demand.

P4: A resource- and energy-intensive scenario in which economic growth and globalization lead to widespread adoption of greenhouse-gas-intensive lifestyles, including high demand for transportation fuels and livestock products. Emissions reductions are mainly achieved through technological means, making strong use of CDR through the deployment of BECCS.

For the period 2020 to 2025, considering that the real economy might only have reached peak emissions in 2020, Alliance Members may apply any of the above pathways so as to balance their own portfolio taking into account the real impact on the economy and other member-specific considerations and constraints, as well as to take into consideration their own assumptions around the future development of CDR or BECCS. The members are expected to be transparent as to the nature of the targets they choose (absolute or intensity or a combination of both) and how these targets relate to the above mentioned pathways (including assumptions on CDR/BECCS).

As part of the Alliance aspiration to further advance the Protocol, Alliance Members are welcomed to explain why certain targets do not fit their overall investment approach. The best available proxy—as described above—is to take guidance from global pathways for the entire economy. This assumes the Alliance member has a geographically balanced portfolio. If this is not the case, they may choose to adjust their target to reflect their investable universe more appropriately. Another adjustment may be driven by the fact that some AOs have higher or lower carbon intensity per their respective investment strategy or may opt to invest in the decarbonization of hard-to-abate sectors. This may require the Alliance member to adjust up or down. An Alliance member which is above or below average carbon intensity with respect to its peers with similar investment strategies may want to adjust their sub-portfolio targets. It is their responsibility to apply pragmatic, science-based principles to their selection, explain their reasoning for how net-zero can realistically be achieved without large overshoot or unrealistic BECCS assumptions, and in doing so, preserve their reputation and credibility.

The Alliance further recognizes that it intends to undertake that which is realistically within its control to catalyse emissions reductions. However, the rate of technological or policy change cannot be confirmed. It is noted that targets set considering the no and low overshoot scenarios above may not be attainable with an engagement-only approach without **appropriate related government policy and corporate actions.**

4.2.1. Adjusting for Pre-Existing Targets (and Reductions Achieved)

Alliance members with pre-existing, public targets are able to translate their base year to an earlier one if scientific pathways have been considered for years prior to 2019.

A number of Alliance members already have public quantitative, absolute or intensity-based emission reduction targets with reference to a different base year and may wish to incorporate the emission reduction achieved prior to 2019 in their Alliance targets. Alliance members may opt to use a different base year, but should consider the decarbonization trend line as described above and whether an additional -5%-pts per annum is appropriate for their portfolio and market environment. To this end, Alliance members are recommended to add -5%-pts for every year[33] they add prior to the 2019 base year, when possible. However, it should be noted that the Alliance acknowledges that -5%-pts per annum is not in line with actual global emission trends in the last years.

Furthermore, some Alliance members may have i) invested in hard-to-abate sectors which are only starting on their path to decarbonisation resulting in emission reduction materializing more slowly over the next few years, ii) may have portfolios that are less intense in carbon and therefore comparatively more difficult to decarbonise, or ii) may have pre-existing public targets which cover a sub-portfolio asset class set different from that covered by this Protocol.

Finally, progress on decarbonisation which pre-dating Alliance membership must have been made public via a set target or evidenced publicly via public reporting if setting an earlier base year. To maintain consistency with the Alliance reporting cycle, public targets issued more than 5 years prior (i.e. before 2015) should not be considered more recent base years are recommended.

4.3. Scenario-derived emission trajectory considerations for sector targets

The Alliance will review for inclusion scientifically-derived, net-zero sector pathways wherever available.

"Sector decarbonization pathways" are a key tool in guiding the global economy towards net-zero emissions. These pathways can account for the different rates at which a given sector can decarbonize, and anchor this in their existing global emissions budget. They can also provide decision useful information on sector-specific R&D, technological development, decommissioning and in other areas. In practice, sectoral decarbonization pathways rely on a wide range of contested assumptions about the rate of technological change, costs and abatement curves, consideration of emissions allocations between sectors and other factors. A variety of models and scenarios can be reviewed and a range of values for that sector can be established as a model. Ultimately these science-based models can significantly aid, support and accelerate sectoral dialogues. For many years SBTi has worked with corporate target setting and established the "sector decarbonization approach", TPI also tracks corporate commitment and progress against decarbonization pathways, as do many other tools and providers.

However, given the relatively new nature of the net-zero objective, and the time required to develop credible models and scenarios, no known providers of sectoral decarbonization pathways for net-zero by 2050 were readily available for use by the Alliance as of Q1 2020. At the end of Q1 the Alliance brought together the actors indicated in section 1.6.6 above to translate the One Earth Climate Model, an energy systems model, into the financial sectors commonly used (GICS, BICS, NACE) by financial, corporate and political actors. These preliminary results will provide a first model indication against which Alliance members can assess corporate sectoral targets. The Alliance will also compare for and take the range of 1.5°C sector pathways wherever available. To date, the Alliance is aware of Cambridge Econometrics, Investor Leadership Network and a 1.5°C power sector pathway from SBTi. Comparisons have been noted in the Sector Targets chapter. We aim to compare to future IEA scenarios whenever possible.[34]

33 This is in line with IPCC 1.5°C reductions required for 2015–2020 as well as an equitable annual share of the 2020–2025 Alliance reduction target average.

34 Mission 2020 'Joint letter to the IEA:' mission2020.global/letter-to-IEA/

4.4. General Principles

4.4.1. Base and Target year

Base year and Target year are 2019 and 2024 respectively

The Alliance Commitment requires intermediate targets to be set every five years in line with the Paris Agreement Article 4.9. The Alliance aims to report publicly on progress in Q4 2025, and issue targets for Q1 2021. Members should consider the following target dates and underlying data in their work:

- Year of target-setting: Q1 2021
  - Data base year
    - emission data: year-end 2019 (as made available by CDP or similar data providers in H1 2020) or most recent data available
    - portfolio data: year-end 2019
- Target year: Q4 2025
  - Data target year
    - emission data: year-end 2024 (as made available by CDP / data providers in H1 2025) or most recent data available
    - portfolio data: year-end 2024

4.4.2. GHG Coverage (CO_2e)

Alliance members will report in CO_2e. Members are encouraged to disaggregate GHG emission data wherever possible.

The Alliance members commit to net-zero GHG emissions by 2050. The Alliance published guidance in September 2019 at its launch which provided the following guidance: "*We envision tracking of all GHGs. Reporting against CO^2 is required, reporting against non-CO^2 GHGs is encouraged and its mandatory inclusion will be considered in the future.*"[35]

However, CDP and similar providers typically produce data for underlying holdings in CO_2 equivalent (CO_2e), which translates the impacts of other GHGs (e.g. Methane "CH4", Nitrogen Oxides "NOx") into the climate impact of CO_2. Therefore, Alliance members will report on a CO_2e basis – as provided by CDP or similar data providers. Wherever disaggregation is available for non-CO_2 GHGs, Alliance members are encouraged to report on a disaggregated basis.

4.4.3. Emission Scope Coverage

Targets are set on the Alliance member's Scope 3 emissions (e.g. "Portfolio emissions")

For asset owners, Scope 3 emissions are equivalent to their "investment portfolio emissions". Alliance members are setting targets on their institution's Scope 3 emissions. Although it is beyond the scope of the Alliance's work, the Alliance supports and encourages members to set net-zero targets for their Scope 1 and Scope 2 emissions. Going forward in this document, all references to Scope 1, 2, and 3 refer to the emissions profile of the underlying investment holdings.[36]

35 unepfi.org/wordpress/wp-content/uploads/2019/09/AOA_FAQ.pdf

36 SBTi-Finance requires that FIs set targets on their own Scope 1 and 2. Alliance does not view this is material at present (roughly 3% of an FIs emissions are an FIs own Scope 1 and 2) and focuses efforts on an FI's Scope 3 or "Portfolio Emissions".

4.4.4. Emission Scope Coverage of the Underlying Equity

The Alliance recommends that Alliance members set targets on Scope 3 in sectors covered under Sector Target wherever possible. For sub-portfolio targets, members should track, but not yet set targets on Scope 3 emissions until data becomes more reliable.

Corporate data on Scope 3 is somewhat unreliable[37] and several data provider estimate Scope 3 emissions with a wide range of outcomes. The estimation methods and reported data can differ substantially. Several options for addressing Scope 3 were explored:

1. Completely exclude Scope 3 emissions from the first sub-portfolio targets.
2. Completely exclude Scope 3 emissions from the first sub-portfolio targets but recommend internal Alliance member tracking of emissions – as far as data is available.
3. Exclude Scope 3 emissions from sub-portfolio targets but recommend that it is include it in the Sector targets for the most relevant sectors.
4. Exclude Scope 3 from targets but include it in the reporting. Then, include it in targets as soon as the Alliance feels comfortable with the underlying data.
5. Include Scope 3 and explicitly comment that there is a lack of reliability in the data. Work with the providers on a methodology to calculate more robust data, which would level up our credibility. A backward revision of targets or data can be done once the Alliance feels more comfortable with the data.

The Alliance decided to employ both option 2 and 3 as listed above.

4.4.5. Internal Operationalisation

Alliance members should deploy the necessary operational capacity to make carbon emission data available across the organization. The data should include at least Scope 1 and Scope 2 and are recommended to be sourced from a credible and independent source. The disclosure of portfolio carbon footprints or carbon intensities should be in line with the recommended coverage made in the Protocol. The methodology used for doing the carbon footprint should be accessible and explained in enough detail such that it can be replicated by an independent institution given they have access to the same level of information. Members also commit to disclose the progress that they have made using a consistent methodology.

37 Busch, T., Johnson, M., Pioch, T. and Kopp, M. (2018) 'Consistency of Corporate Carbon Emission Data' University of Hamburg: ec.europa.eu/jrc/sites/jrcsh/files/paper_timo_busch.pdf .

5. Sub-Portfolio targets

Member's sub-portfolio targets should strive for carbon reductions in the range outlined above of -16% to -29% by 2025, using a FY2019 as baseline and FY2024 data as target year, covering listed equities and publicly traded corporate bonds and real estate asset classes, independently or in aggregate, for Scopes 1 and 2 of the underlying holdings. Where these targets are not established the asset owner should provide their explanation against their commitment to the net-zero goal for the real economy by 2050.

Sub-portfolio targets cover all sectors and asset classes where credible methodologies exist. These targets represent the Alliance member's direct commitment to decarbonizing their portfolios. Together with the sectoral targets, the sub-portfolio targets are the most significant quantitative component of the Alliance's target setting scheme and reporting rubric. Sub-portfolio targets aim to guide a decrease in the underlying emissions profile for a pool of investee companies. They enable an aggregate ambition and monitor progress, notably achieved through engagement and financing activities, against an asset class desired outcome. Alliance members will work to reach sub-portfolio targets on a sector-neutral basis. Members do not want to withdraw capital from the high emitting sectors but do want to provide the necessary capital for the transition as needed (so long as the sector activities are transformable to a net-zero economy). Capital should be directed towards those companies who are willing to transform their business models to align with a net-zero pathway.[38]

The carbon footprint of a company is often seen as a measure for transition risk. The Alliance members are aware of the many limitations to this approach. A company's carbon emission output is important but is not in itself an adequate measure of transition risk in a credit or equity portfolio. Absolute emissions or carbon intensity can be rough proxies for carbon risk, but climate risk assessment entails consideration of a broader set of metrics than simply carbon emissions. Transition risk is also influenced by industry specific fundamentals and opportunities for emissions abatement. Focusing on emissions can also miss business model nuances, with the choice of normalizing factors can lead to different conclusions.

The asset classes that should be included in the sub-portfolio target are listed equity, publicly traded corporate bonds, and real estate, because carbon emissions data are more readily available for these asset classes, the metrics supported by organisations around the world are readily available to be used by the Alliance and these asset classes represent a good starting point for Alliance members to work towards the 2050 objective. The carbon emissions[39] included in the first iteration of the Alliance portfolio target are the Scope 1 and Scope 2 of the portfolio companies (as the consistency of Scope 3 data is not robust enough to be used by members of the Alliance for target setting).[40] This can be revised backwards if the consistency of Scope 3 emissions improves in the coming years.

Alliance Members' Targets

The Alliance aims to provide its members with access to the approaches and methods that best support and align with robust target setting and the Alliance commitment. In this sense, the available methodologies and approaches are evaluated and must enable achievement of the 1.5°C degree target through real economy impacts, while setting concrete targets on a 5-year basis in line with our commitment. As described in the preceding section '*Scenario-derived emission trajectory considerations for sub-portfolio target*' should be set based on the chosen pathway. This reduction can be assessed with an aggregation of (i) real estate; (ii) listed equity; and (iii) corporate bond emission reductions,[41] or can be applied to each asset class separately. It can also be applied in aggregate or separately across Scopes 1 and 2.

---

38 At present, the Alliance relies on each Alliance member to make their own determination on a company's ability to meet a business model transition. Guidance included in the Engagement Chapter and from IIGCC PAII framework provides an early set of criteria which is aligned with Alliance criteria as described above.

39 By carbon emissions, it is implied throughout this document that this notion covers carbon and the equivalence of other GHG converted to CO_2.

40 However, Alliance members who believe they can set targets on scope 3 emissions are encouraged to do so.

41 In this scenario higher reductions in one asset class could offset a lag in the other.

The aggregation of corporate equities, bonds and real estate into a single portfolio target is feasible but depends on the metrics used to track emissions reductions by sub-portfolio type. The first publicly announced targets will focus on laying the groundwork for a broader scope of asset class to be included. The Alliance will continually improve the KPIs used to assess real-world impact of target setting across all asset classes.

In cases where Alliance members hold or buy assets that are emission intense or in hard-to-abate sectors with a well-defined strategy to decarbonise these assets, sub-portfolio targets may be adjusted to reflect these additional exposures with respect to the fact that the reduction of industrial emissions of this nature may be slower than the trajectories used to set portfolio-wide targets (which are sector agnostic planetary averages).

5.1. Listed Equity and Publicly traded Corporate Bonds

5.1.1. Key Metrics

Alliance members may set targets on the basis of absolute carbon emissions or emission intensity. The Alliance recommends reporting both absolute and intensity based KPIs.

It is not uncommon to associate carbon reduction targets (or other qualitative targets) with KPIs. The KPIs can be used to assess how well an Alliance member performs towards its objectives. The KPIs listed below are commonly used to assess progress towards portfolio decarbonization.

Alliance members are deeply committed to relying on the best available science to inform their targets and working to reduce portfolio emissions. In this context, both absolute and intensity metrics are useful for investors for the following reasons:

- Carbon intensity can be a useful tool as one among several climate-related metrics used to inform capital allocation decisions, in the construction of decarbonizing portfolios and in measuring progress on carbon emissions by portfolio companies. Therefore, carbon intensity can play a key role in setting the stage for achieving absolute emission reductions.
- In a given sector, absolute corporate emissions are highly dependent on the size of the corporate. Using a carbon intensity measure allows an investor to compare companies within an industry and select the most carbon efficient player in a given industry, independent of the size of a company.
- Alliance members may be expecting significant growth in their portfolios as a result of shifting capital, good returns, economic growth or simply because they manage products or plans that are in an accretive phase (contributions exceed withdrawals). The opposite may be true for other members. These variations of asset under management will highly influence absolute portfolio emissions and thus not reflect real decarbonization trends. Here, an intensity metric helps to better mirror the decarbonization efforts on the marginal dollar.

Notwithstanding the Alliance's overarching (absolute) net-zero ambition for 2050, we consider that intensity metrics and intensity-based targets can play an important role in the implementation and management of portfolio decarbonization within asset owners. Alliance members may therefore set absolute or intensity-based targets, particularly in the early years.

Reporting for both absolute and intensity-based is encouraged. If an intensity-based metric is utilised then Members should understand, on a disaggregated basis, the portion of the intensity reduction originating from asset purchases and disposals, and those originating from organic emission reductions generated by assets in portfolio and that originate from changes in financial metrics.

Using market cap is common for equity portfolios but as most members of the Alliance are also invested in corporate bonds, we recommend using enterprise value (or EVIC) to allocate emissions to the relevant parts of the balance sheet (equity/debt).[42]

42 This is also in line with the EU Benchmark Regulation linked to the EU Action Plan on Sustainable Finance and the European Banking Authority's Regulatory Technical Standards (RTS) consultation.

In general, we recommend that in all calculations nominators and denominators are closely aligned e.g. taking nominal value for bonds in an EV based calculation as the outstanding debt component in the EV of a company is also based on nominal value. Moreover, less volatile measures will lead to more stable results.

EV/ EVIC is closely linked to the financing sources of companies, hence directly linked to the role of investors. This logic can also be applied to real assets like real estate and infrastructure, thus allows a more uniform approach to the total portfolio. On the other hand, revenues are more closely linked to the production output of companies and thus to the source of emissions. In our long-term effort to expand this Protocol to all asset classes we see a slight preference for EV/EVIC based intensity metrics.

It is not the ambition of the Alliance to create a market standard—this will be done by standard setters & regulators in the next years (which might even lead to different market standards per region (US, EU etc.) in the beginning).

5.1.2. Total Carbon Emissions (absolute metrics)

This metric measures the Total Owned Carbon Emissions associated with the underlying investments of a portfolio. The Scope 1, Scope 2 and potentially Scope 3 carbon emissions are attributed based on the equity or debt ownership relative to the Enterprise Value or EVIC and for equities, Market Cap.[43]

Pros:

- Easily understandable and well known across the investment industry
- The metric can be used on a number of asset classes, including real estate, by using the asset value as the denominator
- Linked to the total absolute global carbon emission budget available in a 1.5 degree scenario.

Cons:[44]

- Portfolio growth can outpace the reduction in carbon emissions. Adaptations for M&A und unusual portfolio growth rates are necessary
- Difficult to compare portfolios, to each other or to a benchmark

Formula:

Weighted by EV	Weighted by Market Cap
$\sum_{i=1}^{n}\left(\frac{I_i}{EV_i} \times C_i\right)$	$\sum_{i=1}^{n}\left(\frac{I_i}{M_i} \times C_i\right)$
I: Current value of investment in issuer i	I: Current value of investment in issuer i
EV: Enterprise Value of issuer i	M: Market Capitalisation of issuer i
C: Carbon emissions of issuer i	C: Carbon emissions of issuer i

Other initiatives which are utilising similar metrics:[45]
TCFD, PCAF

43 The Alliance notes that market cap would not be a reasonable metric for calculating emissions for fixed income holdings.

44 The Alliance recommends the use of debt's nominal value.

45 tcfdhub.org/Downloads/pdfs/E09%20-%20Carbon%20footprinting%20-%20metrics.pdf

5.1.3. Carbon Intensity (intensity metrics)

If an Intensity-based metric is reported, it is recommended that either Revenue or EV/EVIC is used.

This metric represents the volume of emissions attributed to an Alliance member in relation to a specific financial metric. The carbon intensity can be expressed with different denominators as shown below.

Pros:

- As emissions data coverage improves and new asset classes are added, an intensity metric is more stable and better accommodates baseline adjustment
- The metric can be used on a number of asset classes, including real estate assets. If a member selects a combined target, this metric can still be created by using the asset value as the denominator or revenues
- This metric can be used to compare the emissions intensity level of different asset classes, portfolios or even members. It is also a useful metric to select, within the same sectors, the best players to rebalance a portfolio towards a low carbon tilt
- A quantitative analysis on variation factors can be performed on this metric

Cons:[46]

- The reduction/increase in emissions can be driven by volatility in the economic metric selected as the denominator
- Total emissions can still increase even if the carbon intensity measure used decreases
- Revenues in high emitting sectors are often directly linked to volatile commodity prices (e.g. oil, gas, and coal)

Formula:

Carbon Intensity by EV	Carbon intensity by Revenues
$\dfrac{\sum_{i=1}^{n}\left(\dfrac{C_i}{EV_i} \times I_i\right)}{\sum_{i=1}^{n} I_i}$	$\dfrac{\sum_{i=1}^{n}\left(\dfrac{C_i}{R_i} \times I_i\right)}{\sum_{i=1}^{n} I_i}$
I: Current value of investment in issuer i	I: Current value of investment in issuer i
EV: Enterprise Value of issuer i	R: Annual revenues of issuer i
C: Carbon emissions of issuer i	C: Carbon emissions of issuer i

Other initiatives which are utilising similar metrics:
EU's Financial Supervisory Authorities (EBA, ESMA, EIOPA, PCAF and TCFD)

46 We recommend the use of debt's nominal value for the value of an fixed income investment

5.1.4. Adjustments for growth for absolute emission targets

Where a member sets targets on absolute emissions an adjustment for extensive variation in portfolio size (either organic or inorganic) may be necessary.

For instance:

- In case portfolios grow significantly faster or slower than average GDP over time, a target adjustment could be made to account for this change. The climate models on which Alliance members base their CO_2e reduction targets usually work with assumed GDP growth based on World Bank data which suggests a 3% global average growth rate (see table at right).
- In the case where portfolios are structurally subject to significant variations in size, members can express footprint targets per million invested volume, thereby simultaneously encompassing inflows in their target setting scope, while neutralising the bias that would be caused by capital flows.

Region	Growth rate
OECD North America	**2.1%**
OECD Pacific	1.3%
OECD Europe	**1.5%**
Eastern Europe/Eurasia	2.5%
Middle East	3.4%
Latin America	2.8%
China	4.2%
Africa	4.4%
India	5.6%
Non-OECD Asia	3.6%
Global	**3.2%**

5.1.5. Adjustments based on Merger and Acquisitions (M&A) activities

M&A transactions may require an adjustment to sub-portfolio targets. For the adjustment, a linear reduction between base year and target year is assumed. The emissions of the acquired (or sold) portfolio are measured at transaction time and the adjusted portfolio will then have a new target. It is the responsibility of each Alliance member to decide whether a M&A transaction is large enough to justify a new target and to properly document the adjustment in case a new target is set.

For example, Company A sets targets with base date 31.12.2019 and absolute reduction of -25% in the 5 years to 31.12.2024, reducing emissions from the 100 point baseline figure to 75. Company A acquires Company B at 30.06.2021 with emissions of 35 at that date. As the time until 31.12.2024 is 70% of the initial 5 years, Company B needs to reduce emissions by 18% from 30.06.2012 to 31.12.2024 and the new joint emissions target is 103,9. See also the table below.

	Company A	Company B	Company A+B
Base date	31.12.2019	30.06.2021	
Target date	31.12.2024	31.12.2024	31.12.2024
Share in target timeline	100%	70%	
Reduction	-25%	-18%	
CO_2 emissions @base date	100	35	
Target CO_2 emissions	75	28.9	103.9

Communicating Adjustments for intensity-based targets

While far less applicable for intensity-based targets, all adjustments to targets must be communicated in a transparent way, explaining the reasons and the methods in detail.

5.2. Real Estate

5.2.1. Objectives and scope

Target Setting Protocol Summary

Term	Definition
Asset Class	The Alliance recommends that members set emissions reductions targets on "fully and jointly owned" Real Estate portfolios
Sectors	Commercial and Residential buildings
Scope	Targets are recommended to be set on Scope 1 and 2, plus, where possible, tenant related Scope 3 emissions from heating and electricity
Target	Includes both landlord controlled and tenant-controlled areas in line with the overall sub-portfolio target or Carbon Risk Real Estate Monitor (CRREM) 1.5°C national pathways. The output will be an emission target (per gross floor area) at the portfolio level. The recommended metric is CO_2e/m^2/annum or CO_2e/ft^2/annum
Approach	As a science-based scenario is required, the use of CRREM[47] 1.5°C pathways is recommended

5.2.2. Key Definitions

- **Residential buildings:** refers to private dwellings such as apartments and houses.
- **Commercial buildings:** includes properties related to trade, finance, retail, public administration, health, food and lodging, education and commercial services.
- **Fully-owned:** includes all assets that are held 100% in portfolio during the baseline year (2019).[48]
- **Joint Venture:** when an asset or assets are part of a joint venture, joint operation or are in joint ownership, participants are required to report on these assets. Joint venture partners with a stake of 25% or higher are considered to have significant influence over operational initiatives and can therefore drive implementation of performance improvements.
- **Operational control:** is defined by the asset owner having the ability to introduce and implement operating policies, health and safety policies, and/or environmental policies. (This recognizes the actual capacity of the asset owner to advance decisions which can lead to a reduction in the level of CO_2e emissions.)
- **Tenant Controlled:** where a single tenant has the greatest authority to introduce and implement operating policies and environmental policies, the tenant should be assumed to have operational control.[49]
- **Scope 1:** for the purposes of this asset class refers to direct emissions from onsite fuel combustion for space heating, water heating, cooking purposes in the full building.
- **Scope 2:** for the purposes of this asset class refers to indirect emissions from purchased energy (electricity, steam, heat and cooling) for space heating, water heating, space cooling, lighting, cooking, appliances and miscellaneous equipment (typically these are emissions related to tenant use).
- **Scope 3:** for the purposes of this asset class refers to direct, tenant-related emissions from electricity and heating (embodied carbon, downstream, upstream not included).

47 The Carbon Risk Real Estate Monitor (CRREM) is a European Horizon 2020 research and innovation project. The objective of CRREM is to accelerate the decarbonisation and climate change resilience of the EU real estate sector by providing appropriate science-based carbon reduction pathways at property, portfolio and company level. See: crrem.eu.

48 Final guidance is being elaborated but the working definition would include assets held 200 of 365 days.

49 For example, in the case of a full repairing and insuring (FRI) lease in England and Wales, the tenant has operational control meaning that the area is tenant controlled.

5.2.3. Setting Target

As a science-based scenario is required, the use of CRREM 1.5°C pathways is recommended.[50]

As such, an Alliance member can either set:

- a specific target for the Real Estate portfolio
  - using CRREM 1.5°C pathways; targets derived from the CRREM model allow asset owners to reflect the actual makeup of their real estate portfolios with respect to geographic location and building type (such as residential and commercial).
  - that is independent from the CRREM model but equally recommended as long as included in the range defined by the Alliance for the sub-portfolio target (i.e. a reduction in the range of -16% to -29%).
- an aggregated target which combines the different asset classes (listed equity, corporate bonds and real estate), that can be expressed in the form of:
  - an absolute reduction target; or
  - an intensity-based reduction target (metric suggested is CO_2e/amount invested).

The Alliance acknowledges that there is more than one way to measure intensity, and each metric has a different purpose. For intensity targets specifically set for the real estate portfolio, the $kgCO_2e/m^2$/annum is the recommended metric. However, if Alliance members wish to include the real estate portfolio in a combined target with other asset classes, the tCO_2e/asset value could also be utilized.

The Use of CRREM Pathways

CRREM offers the possibility to evaluate the progress of a portfolio's carbon reduction performance against reduction targets in line with the Paris Agreement (i.e. limiting global warming to 2°C / 1.5°C). CRREM offers several inputs to define a specific target for a real estate portfolio and allows for global and/or country-specific decarbonization rates.

The use of a specific target for real estate allows a better consideration of the specificities of the portfolio of each Alliance member. In this case, the member can define the target according to the geographic location of its assets (some countries are more advanced in terms of decarbonisation of the energy mix) and the assets type, which can be included in the real estate target via a bottom up approach. A member with 50% of the buildings in country A and 50% of the buildings in country B would have an aggregated target based on a 50% weight for the national pathway target for country A and country B, respectively. Additional adjustments could be made in similar ways for specific building types.

Individual member targets defined according to this approach can differ significantly as national decarbonisation targets differ significantly. As an example, the 2020–2025 emission reduction requirement in CRREM 1.5°C global pathway is 28% but national reductions vary between 15%–28% (residential) and 14%–32% (commercial).

Limitations are noted in the CRREM pathways as its current version coverage is limited to the EU and a selected number of additional countries. However, for the purposes of the Alliance with the current composition of asset owners the country coverage of the CRREM model was determined to be sufficient, via the tool or via the global pathway model, to be used by the member to define their specific target.

50 A different pathway provider can be used by the Alliance member as long as it is aligned with a credible net-zero by 2050 model or scenario which conforms to a 1.5°C carbon budget. The Alliance is not aware of any alternatives to CRREM at this time.

Coverage
Where an Alliance member cannot define a target based on the total floor area under management, the member should:

- Declare in a transparent way the percentage of its RE portfolio (in terms of percentage of total gross floor area) covered by the target.
- Declare what percentage of the emissions considered in the target are estimated.
- Define and communicate how they intend to reach full coverage over time (a clear timeline should be defined).
- For buildings where only common area/operational area is taken for target setting, tenant area of such buildings should be deducted from the target setting area under consideration.

As Alliance members should show a positive commitment to cooperate with tenants, all members are encouraged to track energy performance metrics and should ultimately seek to engage utilities on their supplied energy mix.

Further, while historic buildings can present specific challenges, it is the objective of the Alliance that all assets under management should be taken into consideration in the target setting process. If the member cannot make improvements for some specific buildings (ex. if retrofit does not make economic sense, or some characteristics of the building make it difficult to make important refurbishment works), this should be clearly explained by the Alliance member.

Data Availability and Estimation
Data is, as for all asset classes, a central component in the ability to set and achieve emission reduction targets. Significant differences exist between regions in terms of reported data availability for the carbon emissions and/or energy consumption, particularly when the asset is occupied by third party tenants.

Reported data is preferred over inferred (proxy-based) data, where it is robust (e.g. audited, publicly reported). Proxies may be used to cover lack of data provided these are transparent and based on robust and dynamic extrapolation rules that are revised regularly.

Estimation: When utility consumption annual data is partially unavailable or unreliable for an asset, estimation is allowed.

Where estimations are used, the Alliance member should;

- Disclose the estimation methodology used
- Disclose the proportion of total disclosed data that is estimated (based on both the floor area for which estimates are used)

Members who rely on estimated data should include a strategy to collect real data and replace estimated data with real data in the coming years. A revision mechanism should be considered to allow for evolution in the target as data quality improves.

5.2.4. Key levers for Emission Reductions in the Real Estate Asset Class

The levers available depend on the asset type and geographic exposure. Feedback suggests that the different levers can be considered according to the specificities of the assets.

Reallocation or divestment approaches are less feasible compared to liquid asset classes. Achieving emission reductions by selling low performing buildings and acquiring better performing ones should not be the primary lever to reach targets. Instead, the approach should be reducing the carbon emission of the existing portfolios.

The key levers should be:

- **Changes in the energy mix.** This lever can be readily applied unless the energy mix of the country/ portfolio already relies highly upon renewables.
- **Improving the buildings' energy performance** (this lever can require capital expenditure (CAPEX) and should ideally be based on building-specific retrofit plans that lead to net-zero by 2050 at latest). The suitability of this lever depends on the average age of the portfolio, as for more recent buildings the improvement can be marginal.
- **Tenant engagement.** The use of this lever depends on regulation and on the type of tenant. This approach is easier for buildings occupied by a single large tenant. In case of a wider, fragmented portfolio the engagement option to reduce emissions may be more challenging.
- **Policy advocacy and grid operator engagement** can be used with the intention to create obligations for the disclosure of energy consumption data from tenants and to align asset owner and tenants on a common goal of reducing the CO_2 emissions from the building. Alliance members should also evaluate the possibility of engaging with real estate industry associations to explain the needs from an asset owner perspective in terms of data availability and goal alignment with the tenants. For example, in France, regulation requires alignment between tenants and asset owners on decarbonisation targets.
- **Investing in new buildings which have lower emissions-intensity**. This lever can be used for a growing real estate portfolio, while it can be difficult in case of a stable or decreasing portfolio.
- **Divesting existing buildings which have higher emissions-intensity.** This lever can be difficult to use and, at best, only has indirect impacts on real world emissions reductions.

The ability to work with these levers and to understand how they will impact each Alliance member's decarbonisation is important. Efforts across the real estate sector will have significant regional differences and also depend on the owner structures. In particular, engagement initiatives will need to be member-specific at the local, national, or regional level.

5.2.5. Future Work

As a general principle, embodied emissions (e.g. from retrofits) should be included in target setting considerations. However, the availability of consistent and reliable standards and data is currently very limited. This can make it difficult to include embodied emissions in the first round of targets for Real Estate. Embodied emissions calculations (methodology, estimations, etc.) will be discussed further before being included in any sort of Alliance target.

Exposure through real estate funds etc. will also be investigated in the future and addressed on the basis of its materiality among Alliance members.

6. Sector Targets

When setting sector targets, Alliance members should set sector intensity-based targets for all Alliance priority sectors. If a priority sector represents less than a significant part of the member's portfolio, a member can choose not to apply a target to this priority sector. However, in exercising this judgement, an Alliance member should employ the recommendations herein or explain and justify the threshold for not applying a sector target. The identified threshold for each sector should be commensurate with both the member's portfolio size and the portfolio emissions profile, in absolute and relative terms.

The guidance for sector targets has four main objectives to:

1. Define an average carbon reduction pathway for key high emitting sectors;
2. Inform member's engagement efforts, identifying desirable emissions level outcomes;
3. Support investment decisions in companies implementing climate solutions designed to reduce their emission intensity; and
4. Inform portfolio construction, sectoral allocation and target setting at Alliance member-level.

6.1. Alliance priority sectors and link to engagement

Alliance members implementing sector targets will set sectoral targets in the first instance on Alliance priority sectors: (i) Energy, including Oil & Gas and Utilities; (ii) Transport (civil aviation, shipping and road); and (iii) Steel

Sector targets enable Alliance members to enhance the link between overall (absolute) portfolio emissions reductions and sectoral efficiency gains. Sectoral targets inform the need to invest in climate solutions, track changes in the underlying holdings in line with a net-zero trajectory, frequently as a direct or indirect result of engagement and policy actions. This is done by tying emissions reductions in the overall portfolio to real economy sector emitters held in the portfolio. Sectors, particularly so called 'hard-to-abate' sectors given their various roles in achieving a net-zero economy, have different sequencing in their role in the transition and thus varying rates of decarbonization over time. Ultimately it would be ideal to have sector targets for all sectors. Since this is not possible within the given time frame, we have decided to start with some of the highest emitting sectors in the economy which also typically represents the sectors with the highest carbon intensity in asset owners portfolios. These priority sectors also align with engagement track efforts. This list includes, but is not limited to:

- Oil & Gas
- Utilities, incl. coal (26–39% of global emissions)
- Transport
  - civil aviation (2–3% of global emissions)
  - shipping (2–3% of global emissions)
  - road transport (11–17% of global emissions)
- Steel manufacturing (5–7% of global emissions)[51]

The list of sectors will be extended in the future, focusing on high emitting sectors (e.g. cement,[52] aluminium, chemicals).[53] It should be noted that transport is a large component of the Oil & Gas sector's Scope 3 emissions, and the Alliance views this 'value chain' approach as a first step towards tackling Oil & Gas Scope 3 emissions. See Annex I for the NACE/GICS/BICS classification codes and their association to the sectors named above. In the first instance, Alliance members who set sectoral targets should set them in line with the engagement priority sectors described above. Alliance members who wish to set targets on additional sectors, are encouraged to do so.

51 Various sources including IPCC, WRI, and US Department of Energy
52 The sectoral pathway for Cement is also available from the OECM. Alliance members who wish to do so are encouraged to set Cement sectoral targets.
53 The Alliance is also considering agriculture and other sectors, as data becomes available.

6.2. How to set targets and scope of emissions

The global carbon budget[54] as referenced by the Alliance is the cumulative amount of GHG emissions permitted until the end of the century to keep within a 1.5°C threshold. The idea behind sector targets is to allocate the remaining carbon budget across economic sectors split by geographic locations until 2050 using a set of economic and technological assumptions compatible with a 1.5°C pathway.

It is difficult to make a causal link between asset owner engagement and the decarbonization of individual companies and sectors. Assessing the impacts of divestment on cost of capital for high emissions companies and associated emissions reductions is similarly hard to calculate. Given these challenges, in order to track decarbonisation progress across the investable universe the Alliance will track a constant, non-managed "representative" portfolio. The Alliance aims to start with the top 20 emitters from each of the priority sectors as part of a tracking exercise that will run in parallel with member actions.

As described in Section 7.3.1 below, a small number of models are known to provide sector decarbonisation pathways for both total CO_2e emissions on scope 1 and 2, and on a sector product/production specific level using an output intensity metric. This allows an Alliance member choosing to use the OECM to set two different types of sector targets.

The first is Product/Production specific sector targets, that for example can be measured in CO_2e per ton of steel produced or CO_2e per km of produced cars.

The second is Carbon Intensity-Based sector targets, using the same calculations as described on Section 5.1 for carbon intensity based on EV or Revenue.

Sample Data

Global	Unit	2018	2019	2020	2020	2025	2030	2035	2040	2045	2050
Subsector		Base year	[estimated]	[estimated]	[1.5°C]	Projection					
Specific ENERGY RELATED CO2 emissions per ton of steel	[tCO2/ton steel]	2.27	2.26	2.14	2.13	1.74	1.10	0.64	0.37	0.19	0.08
Deviation compared to 2019	[%]				-6%	-23%	-51%	-72%	-84%	-92%	-96%

OECD Europe		2018	2019	2020	2020	2025	2030	2035	2040	2045	2050
Subsector	Unit	Base year	[estimated]	[estimated]	[1.5°C]	Projection					
Total Materials / Steel											
Specific ENERGY RELATED CO2 emissions per ton of steel	[tCO2/ton steel]	2.06	2.07	1.96	1.93	1.55	0.97	0.60	0.34	0.19	0.08
Deviation compared to 2019	[%]				-7%	-25%	-53%	-71%	-83%	-91%	-96%

Company examples

	Ton CO2/ton steel
Company A	2,22
Company B	0,75
Company C	2,13
Company D	2,11

Average

1,80

Can either:
- set a percentage reduction target per sector (e.g. reduce with 23% from 1,80)
- set a target based on intensity levels needed in 2025 (reduce to 1,74 or 1,55 – dependent on where the majority of companies are located)

The first option can, for example, be measured by percentage reduction of relative emissions based on the emission reductions needed to be aligned with a 1.5°C-degree pathway. One of the positive things with using the product/production specific sectors targets is that these are largely independent of economic variables such as revenue and have no market or price volatility, making it easy to track the real emission reductions in isolation, and also comparing performance between companies.

54 The IPCC special report Global Warming of 1.5˚C (SR1.5) calls for a total carbon budget of 420 $GtCO_2$ to maintain 66% chance of staying below the threshold of 1.5˚C in global average temperature rise, adjusted to account for additional warming since the beginning of the industrial era (circa 1750).

However, we have seen that a lack of data availability or unreliable/weak data has been an issue for several asset owners. Carbon intensity-based sector targets on the other hand, have easily accessible data but is dependent upon economic variables (such as revenue), and only covers scope 1 and 2 in the sector decarbonization pathways.

Key results

Global Scope 1 and 2 emissions by financial sector in CO_2 equivalent (includes energy-related CO_2 and CH4 emissions only)	Scope 1		Scope 2	
	2025 [mio ton $CO_{2\,eq}$]	Required reduction 2019 – 2025 [%]	2025 [mio ton $CO_{2\,eq}$]	Required reduction 2019 – 2025 [%]
Energy (Oil & Gas, Coal)	24,660	-30%	328	-33%
Utilities	12,772	-37%	193	-24%
Transport (Aviation)	269	-34%	39.5	(1) see below
Transport (Shipping)	144	-6%	21.2	(1) see below
Transport (Heavy duty road/Freight)	1,912	-27%	127	(1) see below
Transport (light duty road/Passenger)	2,735	-32%	147	(1) see below
Steel	3,313	-22%	389	-37%
Cement	1,701	-13%	113	-50%

The table shows the key results for all analysed financial sector. Provided are Scope 1 and Scope 2 emission in CO_2 equivalent that includes energy related CO_2 and CH_4 emissions. Based on the methodology of Sector 1 and 2 emissions, the emissions cannot be added up. The calculation of Scope 3 emissions were not possible as this would require an analysis of all sectors.

(1) The implementation of new hydrogen and synthetic fuels and increased electrification increases Scope 2 emissions while Scope 1 emission decrease. The share of electric drives in road transport and the use of hydrogen and synthetic fuels in aviation and shipping is at almost zero on a global scale, therefore the emission increase from 2019 to 2025 cannot be provide in percent.

Use data points to set carbon-intensity targets in conjunction with absolute emission targets

For these reasons it is recommended to use product/production specific sector targets if data allows, and carbon-intensity targets in conjunction with absolute emission targets if appropriate data is not available. The reason for not recommending only setting targets on absolute emissions is to limit the risk of divestments and to stimulate emission reductions in the real economy.

The Alliance recommends setting targets on Scope 1 and 2, as well as tracking and reporting on Scope 3 data under either approach.

6.3. Sector pathways (various models)

The sectoral targets are being set using scenarios and sector pathways modelled to align with a 1.5°C carbon budget. The modelling approach provides a translation of technology development and technology use into transition and decarbonisation pathways for economic sectors. The 1.5°C models explored include:

i. One Earth Climate Model;
ii. Investor Leadership Network pathways; and the
iii. Cambridge E3ME.

The Alliance also examined the SBTi 1.5°C Power Pathway, the IEA Well Below 2°C scenario and the IEA NZE2050.

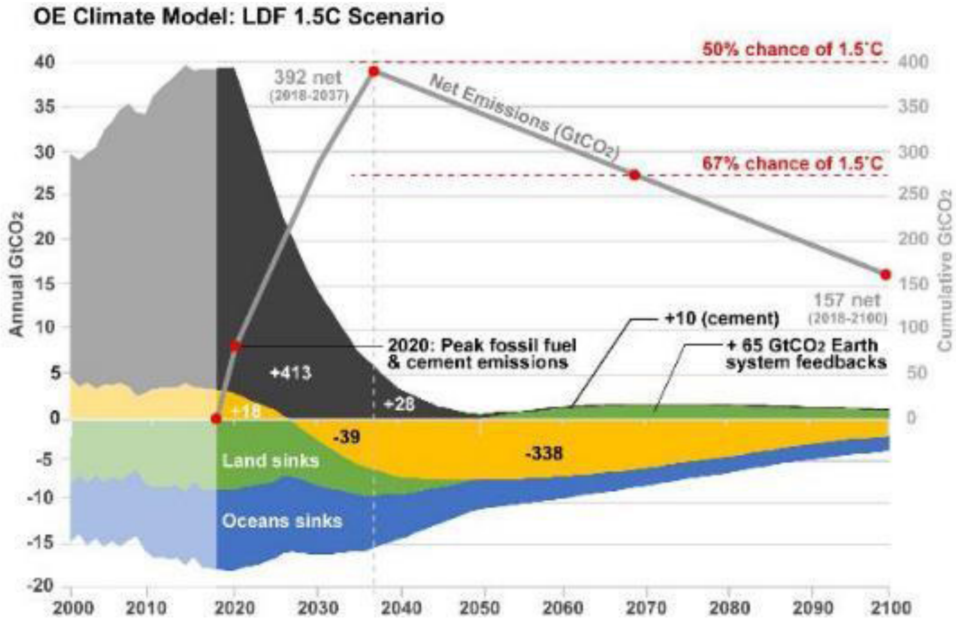
The pathways will be compared in order to establish a corridor of possible quantitative targets and will also be used to corroborate the portfolio target to make sure portfolio targets and sector targets are aligned and consistent.

It is challenging to identify multisector models which include information at the sector level which is granular enough for target setting purposes. The Alliance continues to call upon the scientific community and other providers to continue to advance such modeling.

6.3.1. Model: One Earth Climate Model

Beginning Q1 2020 and following a period of consultation with various climate modelling organisations, the Alliance has collaborated with the University of Technology Sydney, Institute for Sustainable Futures' OECM.[55] It has been used as a first reference case against which Alliance members could set sector targets at five-year intervals to 2050 across all economic sectors and geographic (including regional data for North America and the European region) regions.

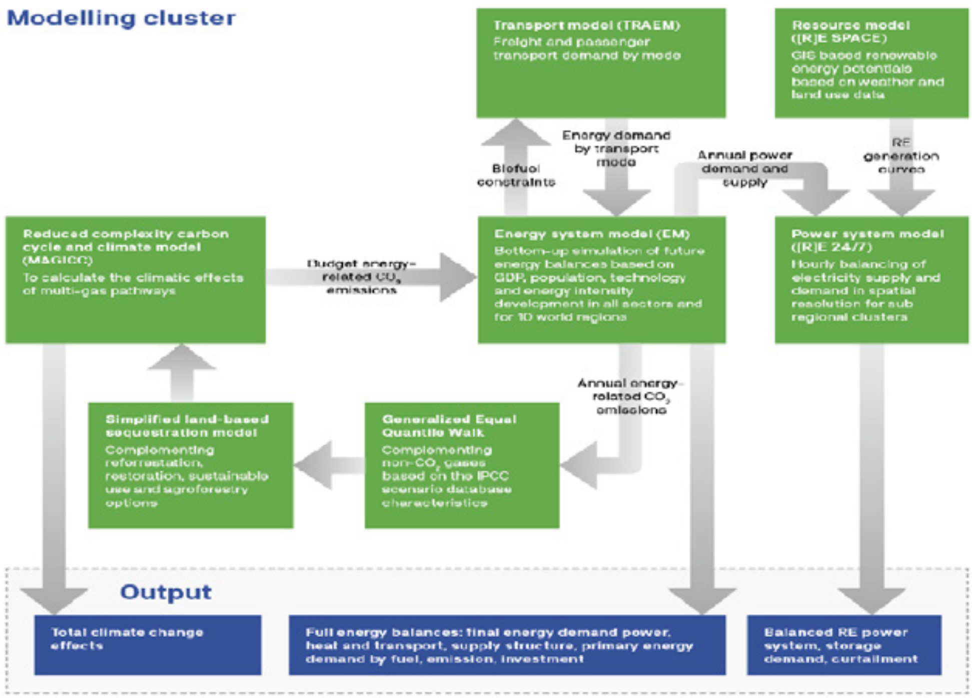
The OECM shows the 1.5°C target can be achieved through a rapid transition to 100% renewables by 2050, with renewables needing to hit 56% of the global power generation mix by 2030 under the model. The shift to renewable energy will need to be coupled with a major conservation effort to increase the resilience of natural ecosystems and boost food security. This includes a moratorium on land conversions by 2030 and nearly 400 $GtCO_2$ of 'emissions removed' via afforestation and land restoration (shown in gold below the zero line), which pulls carbon dioxide out of the atmosphere and stores it in trees and the soil.



The OECM is based on a modelling cluster that will provide sector specific 5-year targets compatible with a 1.5°C pathway. The model is based on the following assumptions:

- Development of a 100% renewable energy scenario;
- De-carbonization of the entire global energy sector within one generation (until 2050);
- Based only on technologies currently available or under development, excluding BECCS, CCS and nuclear energy. Note that the exclusion of CCS technology from the OECM model used to set sector targets might differ from the approach by other organisations including the International Energy Agency. OECM also includes methane emissions resulting from fossil fuels mining and extraction.

55 (OECM report forthcoming)



The OECM-derived net-zero pathways have been peer reviewed by a number of climate modelling organisations including the Energy Transition Commission, Exponential Roadmap, Potsdam Institute for Climate Impact Research, Science Based Targets Initiative, CDP, and WWF.

6.3.2. Model: Investor Leadership Network (ILN) Sector Pathways

The ILN scenario is built on a bottom-up, sector-by-sector assessment of greenhouse gas emissions and abatement potential based on extensive industry insights gained through a consultative process. The analysis began with the status quo of each emissions source and the constraints of emission reduction forecasts by the IPCC. The researchers then applied ten levers across the economy in light of technology readiness, implementation constraints and regional variations. Most of the technologies considered in this analysis are commercially available; only a handful still require material R&D.

6.3.3. Model: Cambridge E3ME

The Cambridge Econometrics E3ME model is a leading macro-econometrics model for comprehensive economic modelling of policy and technology scenarios. The Cambridge Econometrics scenario set is based on implementation of low-carbon policies, technological developments and substitution away from fossil-fuels to cleaner energy sources and biofuels. The E3ME model includes a close integration of the world's energy systems and the environment with two-way linkages between each component. The model output includes sector CO_2 pathways covering the period 2020–2025 across multiple geographies.

6.3.4. Other Models and Sector Pathways

We also seek to reference 1.5°C transition pathways from the Transition Pathway Initiative (TPI) which is based on the IEA Well Below 2°C Scenario (~1.8°C) as well as the IEA NZE2050.[56] However, given the limited level of data available and the shortened time frame of the IEA NZE2050 scenario it is not yet possible to implement sector targets on this basis.

At the time of writing, no detailed data for the IEA NZE2050 were available. For example, in the case of the final energy demand results for the industry, transport, and buildings sectors, only a graph was published and the values had to be estimated. The IEA has not published specific data for industry sub-sectors, such as the steel or cement industries. Furthermore, no data are available for the period after 2030 until 2050, except for the actual target of achieving "net-zero" emissions. The extent to which negative emissions are factored into this scenario is unknown.

The IEA NZE2050 is based on IEA's Sustainable Development Scenario (SDS), which sets out an energy future that simultaneously achieves the three main energy-related UN Sustainable Development Goals on access, air pollution, and climate change. Full access to electricity and clean cooking is achieved by 2030 and there is a substantial reduction in the three main air pollutants, leading to significant improvements in air quality and a reduction in premature deaths.[57] The NZE2050 accelerates the ambitions of the SDS with regard to energy-related CO_2 emissions, predominantly via increased renewable energy supply and energy efficiency measures. The NZE2050 aims to limit the global surface temperature rise 'without a large level of net negative emissions globally' to 1.5°C, with 50% probability.

6.3.5. Sectoral Intelligence received from Sector Participants

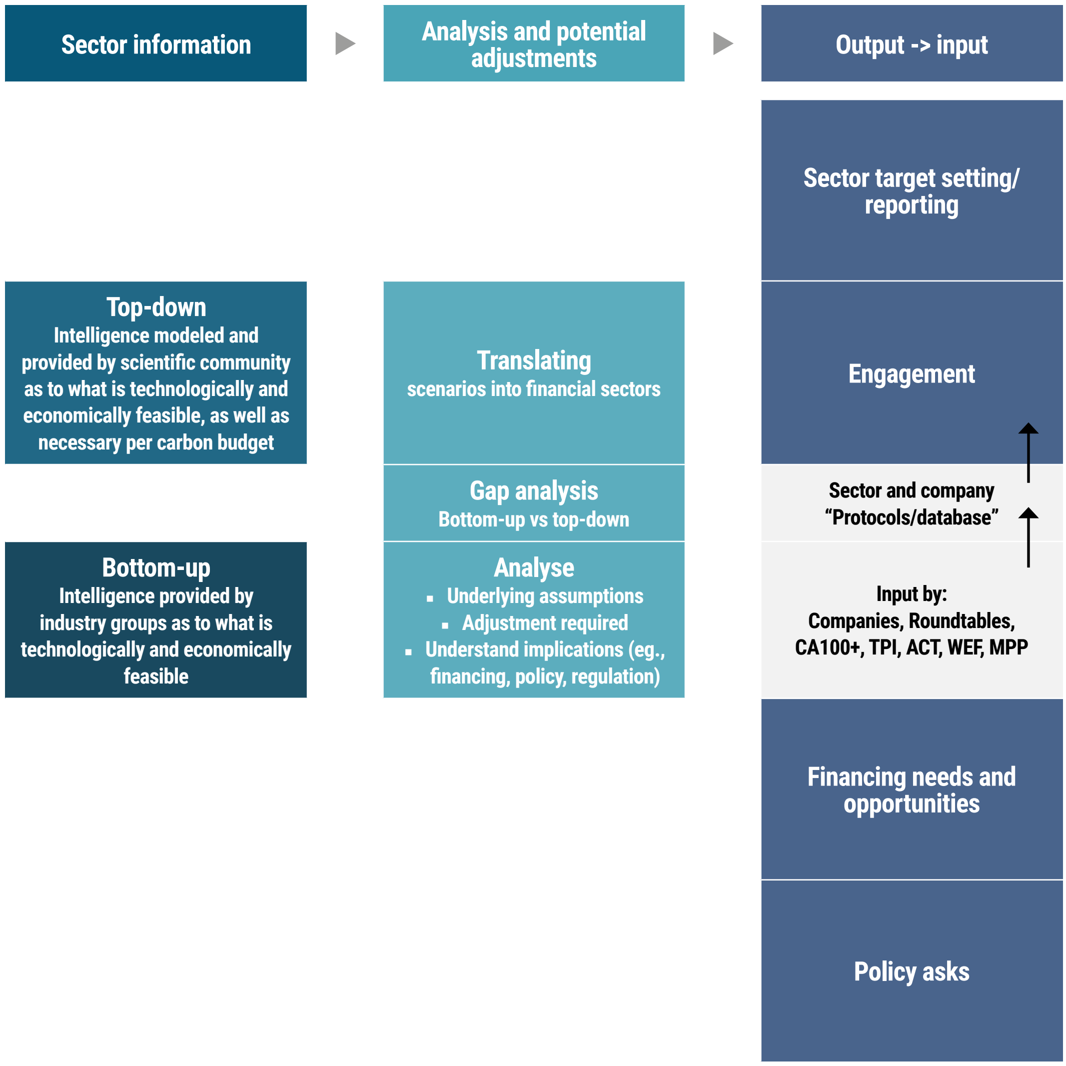
To reality check the top down sector pathways, the Alliance will also employ a bottom up approach. This includes, but is not limited to:

- **Sector dialogues**: As companies converge around intensity-based or CO_2 per production unit it is possible to begin to identify those who are 'on the mark' and those who fall short. Through sector dialogues, the "climate change sector leaders" will be used for reality checking the net-zero targets.[58]
- **Gap Analysis:** Transition Pathway Initiative (TPI) and other initiatives and data providers have collected targets for the high emitting sectors. This data will be used for a gap analysis where the selected high emitting sectors are today and will be compared to what science deems necessary to achieve net-zero pathways. The result will feed into sector, company and policy engagement.
- **Reference to other sector pathways:** Where sector pathways are not derived from an economy-wide model, but rather developed per sector, the Alliance will compare the individual sector pathways as well. For example, the Science Based Targets initiative has produced a 1.5°C pathway for the power sector. The results from these sector decarbonization pathways will be compared to the top down sector pathways 'corridor' derived from OECM, Cambridge E3ME, and ILN.

56 One Earth Climate Model Sector Pathways to Net-Zero

57 IEA WEO 2020, Chapter 4.1, page 125

58 Participation in WEF Mission Possible and Rocky Mountain Institute sector dialogues have been identified as one such avenue.



6.4. Challenges for asset owners when using these models for target setting

The OECM model provides sector decarbonization pathways for both total CO_2e emissions on scope 1 and 2, and on a sector production specific level using an output intensity metric (see specific targets in the Appendix). The other models (ILN, E3ME) consist only of a decarbonization pathway for total CO_2 emissions per high emitting sector. IEA NZE2050 does not yet provide sufficient level or granularity of data.

6.4.1. Product/Production specific and carbon intensity-based sector targets

For Alliance members that have access to product/production specific data, it is recommended to use these metrics for sector target setting. This could for example be the amount of CO_2e per ton of steel produced. Product/production is largely independent of economic variables such as revenue and have no market or price volatility, making it easy to track the real emission reductions in isolation and across companies within a sector on a like for like basis.

Data availability on a product/production specific level is known to be a challenge for some members in the short term. The Alliance believes that some product/production data will become available through implementation of the economic activity disclosures related to the EU taxonomy for example.

For Alliance members that do not have access to production level data, or can only source either unreliable or weak data at a product/production level, the Alliance suggests setting carbon intensity-based emission targets for the high emitting sectors instead. This carbon intensity-based emission target can either be based on revenue or enterprise value (EV/EVIC). An intensity-based target should be used in conjunction with an absolute emissions target, to limit the risk of divestments as a means for reaching the sector targets and in order to stimulate emission reductions in the real economy.[59]

In the meantime, the Alliance commits to play a role in making data accessible to the investment community through an open source data initiative taking place within 3 years.[60]

6.4.2. Constraints around Scope 3 Data

As mentioned above, since the sector decarbonization pathways that have been provided for the Alliance only include Scope 1 and 2 data, the recommendation is to set targets on Scope 1 and 2, as well as tracking and reporting on Scope 3 data.

Scope 3 is especially material for the oil and gas sector as these are inputs for many industrial production processes. Initially, the Alliance will focus on the demand side, setting sector targets for the transportation and steel sector, and asset class targets for real estate. Due to data availability and lack of consistent metrics for Scope 3 within the oil and gas sector, we do not currently recommend setting carbon-intensity based Scope 3 sector targets for oil and gas in the short term. To ensure that we have better, comparable Scope 3 data for the next target setting period, the Alliance will work to clarify the definition of Scope 3 emissions and provide open source data for the largest oil and gas companies within 3 years.

For the automotive sector, Scope 3 emissions can be addressed through product specific targets, such as CO_2e per km of produced automobiles.

The Alliance has discussed how to address Scope 3. For some sectors, like the automobile sector, Scope 3 metrics on the product/production level are available and in these cases the Alliance recommends use of these targets (as mentioned above).

6.5. Targets for Utilities

The Utilities sector covers emissions associated with the energy, transport, operations and maintenance of power/heat generating equipment and associated transport infrastructure (energy grid and pipeline infrastructure).

The Utilities sector, under the Alliance Protocol, includes the operation and maintenance of:

- Power plants/ co-generation plants
- Power grids (transmission to distribution)
- Energy service infrastructure e.g. smart grid storage
- Pipelines for gas transport

Issues:

- One of the sectors with the most significant exposure to climate-related risks is utilities, as this sector lies at the core of the energy transition.
- Plans for phasing out coal and the need to meet emission reduction targets set are an example of potential transition risks.
- Reliance on coal is one of the key transition risks for electric utilities. Uncertainty remains about when and at what pace the coal-fired plants will be phased out.

59 Please refer to calculations in sub-portfolio chapter.

60 OS-Climate has been identified as a possible entry point.

Way forward:

- Setting carbon emission reductions targets is a key area of engagement for investors with electric utilities.
- More transparency is needed on the retirement schedule of coal-fired plants (particularly on a national level) as the timing of this is important to understand the future financial impact on companies and the investments that will be needed to develop alternative generation sources. Retirement schedules should be aligned with scientific scenarios.
- Speed of development of renewables and other low-emission energy sources sets the pace of the shift away from fossil fuels.
- New technologies and supporting infrastructure need to be developed to achieve carbon neutrality such as battery storage and smart grids.
- According to the International Renewable Energy Agency (IRENA), electricity could become the main energy carrier, growing from a 20% to a 50% share of global final consumption by 2050, with renewable power able to provide the bulk of global power demand.
- Supported by a conducive regulatory and economic context, coupled with strong customer demand evidenced by growth in power purchase agreements (PPAs), hydro, nuclear, wind and solar PV will be significant sources of emission-free electricity.
- Fossil fuel-based gas (and in the future green and blue gases), existing and emerging electricity storage forms and demand-side management may also play an important role in enabling the low-carbon transition, balancing the volatility of renewable energy.

6.6. Coal phase out

All Alliance targets should therefore be in line with IPCC Special Report on Global Warming of 1.5°C findings on coal. The Alliance has produced a Position Paper on Coal[61] and target setting on utilities with reference to coal should conform with the guidance as indicated in the paper. The Alliance will allow for coal thresholds which are determined by either 'energy generated' or 'installed capacity'.

6.6.1. Examples of product/production targets

- t CO_2e/MWh
- mio. t CO_2/PJ

6.7. Targets for Oil & Gas

The oil and gas industry can be roughly broken down into three main segments: upstream, midstream and downstream. The Alliance sector metrics focus predominantly on upstream and downstream, as this is where the majority of emissions and mitigation actions are focused. Methane emissions resulting from fossil fuels mining and extractions are also be considered.

Upstream

Upstream businesses are involved in exploring for oil and gas reservoirs, developing the sites and then extracting the fossil fuels. There is a high degree of collaboration across the industry. Many extraction projects are joint ventures between national oil companies (NOCs), who often control the rights to the largest reserves, and publicly listed oil companies (supermajors, majors and independents) who may have better access to technology or capital, as well as often owning downstream businesses that will receive and refine the products between partners. The NOCs account for ~80% of global oil and gas reserves; whilst they are often uninvestable on public markets they are vital to the energy transition.[62]

61 unepfi.org/wordpress/wp-content/uploads/2020/11/Net-Zero-Asset-Owner-Alliance-Thermal-Coal-Position.pdf.

62 The Alliance will consider mechanisms for understanding whether NOCs can be included in Sovereign Debt methodologies and to what extent they can be engaged.

Midstream

Midstream businesses are responsible for moving extracted raw materials to refineries to process the oil and gas. They include shipping, trucking, pipelines, and storage operations. Whilst there are not insignificant emissions associated with these operations, ultimately decarbonisation of the energy sector will rely on the transformation of the upstream and downstream sectors.

Downstream

Downstream businesses refine raw materials into products for sale, converting oil and gas to products such as gasoline, heating oil, lubricants and plastics. All the supermajors are integrated, meaning they have both upstream and downstream assets.

The sector has a range of climate and environmental problems, not least because the fossil fuels it produces, and that the global economy is dependent on, are one of the main global sources of GHGs. The sector itself must fundamentally transform if we are to achieve the goals of the Paris Agreement, with companies either winding down and returning value to shareholders or pivoting and driving the transition to a low carbon energy system. In a net-zero world only a small proportion of residual oil and gas demand will remain, as feedstock to various petrochemical products, or for use as fuels combined with CCUS or natural carbon sinks.

Especially notable climate-related issues are:

- Many companies continue to invest in the expansion of oil and gas production, locking them into assets that are incompatible with the goals of the Paris Agreement. This exposes them and shareholders to stranded asset risk, as well as continuing to emit at unsustainable rates. Supermajors (notably European supermajors) are starting to pivot their business models to become providers of low carbon energy, but the rest of the sector and NOCs must follow.
- Climate risk is inadequately priced into markets.

6.7.1. Examples of intensity Targets

- Operational carbon intensity (scopes 1 & 2); mio.tCO_2e/PJ
  - Not currently split out, but should be available as part of the sub-metrics used to get the overall Carbon Performance score
- Portfolio carbon intensity (scopes 1,2 & 3); tCO_2e/TJ
- Average methane intensity of aggregated upstream gas and oil operations; %
  - The methane intensity refers to the methane that gets lost in the atmosphere when producing oil and gas, as a percentage of the gas sold
  - IIGCC recently wrote to the EU pushing for a target of 0.25% intensity of upstream supply covering all gas sold in the EU by 2025, striving to achieve 0.2% where possible, as an interim objective on the pathway to net-zero emissions
  - Most O&G companies report on this, and Oil and Gas Climate Initiative (OGCI) members are also committed to reporting on average methane intensity
- Percentage of sanctioned/unsanctioned CAPEX outside 1.5°C Scenario; % of total Capex

Carbon Tracker have done initial analysis using IPCC's no-CCS 1.5°C scenario

6.8. Targets for Transport

The Transport Sector, under the Alliance Protocol, includes civil aviation, shipping and road transport. Civil aviation includes; passenger planes and airline services/airplane operation. Shipping includes; ships and shipping line services/ ship operation. Road transport includes; light and heavy-duty vehicles, car services/ car operations, and truck/bus services or operation.

Issues:

- Transportation is responsible for as much as 24% of direct CO_2 emissions from fuel combustion.
- As world urban populations grow demand for transport will increase.
- With the exception of the current year, emissions from aviation and shipping have recently been increasing at a faster rate than for any other transport mode. But energy demand and emissions have also continued to rise for all modes of road transport (cars, trucks, buses and two- and three-wheel vehicles). Increases have been particularly rapid in heavy-duty road freight transport. As a result, the road share of total transport emissions has remained relatively stable at nearly three-quarters of total transport emissions since the turn of the century. This apparent lack of progress highlights the need for greater international policy focus on these hard-to-abate subsectors.
- Challenge is road transport emissions continued to increase despite progress in electrification: the number of electric cars on the world's roads exceeded 7 million in 2019, and fleets of electric buses and trucks are being procured in more and more cities around the world. Therefore, continued growth in emissions is due largely to:
  - Car buyers continue to purchase larger, heavier vehicles, not only in the United States but increasingly in Europe and Asia. This trend is common to all vehicle markets and has led to a slackening – or in some cases even reversal – of national rates of fuel consumption improvements. The worldwide market share of SUVs rose 15 percentage points between 2014 and 2019, to make up 40% of the global light-duty vehicle market. Shares in North America and Australia were particularly high, around 50%.
  - Rising global GDP in 2019, together with the proliferation of online commerce and rapid (i.e. same-day and next-day) delivery, which continues to raise road freight demand.
- Increasing demand for SUVs and for goods leads to greater freight transport activity.
- Global transport sector energy intensity (total energy consumption per unit of GDP) dropped by 2.3% in 2019 after falling an average 1.4% per year between 2000 and 2018. However, according to the International Energy Agency, the energy intensity (total energy consumption per unit of GDP) must drop by more than double the annual average rate of decrease since 2000 – to put transport efficiency on track with Sustainable Development Scenario (SDS).

Way forward:

- Transport sector is dependent on the ability of the *Energy* and *Utility* sector to provide sufficient amounts of renewable electricity, bio and synthetic fuels to supply airlines, shipping lines and road vehicles for passenger and freight transport.
- The key responsibility for the *Transport* sector is to move to electric vehicles, biofuels and renewable produced synthetic fuels. The manufacturer of road vehicles, planes and ships are required to phase-out internal combustion engines (ICE) over the next two decades.
- The market share of electric road vehicles – for passenger and freight transport – need to increase from currently around 2% globally to 30% by 2030. The increased electricity demand needs to come from renewable generated electricity.
- A rapid electrification of road transport fleets has crosscutting benefits for *Energy* and especially for the *Utility* sector as increased numbers of electric vehicles will come with higher storage capacities for electricity and significant demand side management possibilities to integrate high shares of variable solar and wind generation.

6.8.1. Examples of product/production targets

- g CO_2/pkm
- MJ/pkm
- g CO_2/tkm
- MJ/tkm

6.9. Targets for Steel

The Steel Sector covers steel manufacturing from mining to the product steel and doesn't take into account emissions from secondary steel products e.g. construction materials.

Steel manufacturing, under the Alliance Protocol, includes the following:

- Mining iron ore;
- Primary steel processes; and
- Manufacture of basic iron and steel

Issues:

- On average, 1.9 tonnes of CO_2 are emitted for every ton of steel produced. According to the International Energy Agency, the iron and steel industry accounts for approximately 5–7% of total world CO_2 emissions.
- As world population grows demand is only predicted to increase.
- Even though producers of steel develop a spectrum of new technologies from dealing with waste gases to rethinking core metallurgical equations experts say large-scale decarbonization of the industry remains decades away.
- Challenge is to deliver so-called "Green Steel" at a competitive price.
- In principle there are technology routes to lower emissions from steel making but society would have to accept higher cost of steel production.
- The biggest challenge is finding a less polluting way of extracting iron from its ore, as it involves the use of carbon for the chemical reaction that is required but hopefully one day green hydrogen can be used instead.
- Challenge with green hydrogen-based steel is that clean green hydrogen production is expensive and would require a huge expansion of renewable energy generation capacity.

Way forward:

- To reduce the carbon footprint, we need to avoid CO_2 in the steel production by using either scrap or other reducing agents (e.g. gas based or green hydrogen).
- Use end-of-pipe technology which is carbon storage or usage.
- A well-established alternative to blast furnaces is the electric arc furnace (EAF) that melt down scrap instead of using raw materials. EAFs are less expensive and pump out less CO_2 than blast furnaces they already account for about one quarter of global steel output.
- Some companies are trying to make green hydrogen-based steel economically viable (e.g. Swedish Steel group SSAB is building a €150m pilot facility that would make it the first to manufacture the metal without fossil fuels)
- Ultra–Low CO_2 Steelmaking (ULCOS), a consortium formed by 48 European companies and 15 European organisations, is working on an R&D project that is focused on finding opportunities to produce steel using techniques that have at least a 50% reduction of CO_2 emissions.

6.9.1. Examples of product/production targets

- tCO_2/ton steel

NOTE: Alliance is exploring specific treatment for Methane, Tar Sands, and Fracking. It aims to review and engage all relevant initiatives including the UNEP Oil and Gas Methane Partnership, which aims to implement a comprehensive measurement-based methane-reporting framework. The Alliance will also continue to work with a range of initiatives to advance sectoral decarbonization pathways, including a focus on non-linear approaches and technology 'breakthrough' points where significant emissions reductions are rapidly achieved.

7. Engagement Targets

Alliance members have committed to "*engaging on corporate & industry action for a low-carbon transition of economic sectors, in line with science and under consideration of associated social impacts*" and to emphasising "real world impact". Therefore, Engagement targets are perhaps the most important mechanism asset-owners have for contributing to a net-zero economy transition and should be set in conjunction with sub-portfolio and sector targets. **Engagement targets are, therefore, a necessary component of the target setting exercise for each Alliance member**.

To implement the net-zero engagement commitment, members can:

- participate in engagement activities that are jointly pursued through the Alliance engagement track (together with collaborating initiatives);
- and/or perform other engagement activities (in house or via other collaborations) that are aligned with the Alliance's aim of driving companies to commit to net-zero greenhouse gas emissions across their value chains by no later than 2050.[63]

Alliance members Net-Zero expectations of all companies in their portfolios

- To commit to net-zero greenhouse gas emissions across their value chains by no later than 2050 and be supportive of the transition to a net-zero greenhouse gas emission world by 2050;
- To define interim GHG reduction targets that are in line with reaching net-zero emissions by 2050;
- To develop and implement plans for their businesses to remain viable in a climate neutral economy, with meaningful consideration of associated social impacts;
- To support adoption and implementation of governmental policies facilitating the transition to net-zero emissions;
- To prepare for and not disrupt price mechanisms on greenhouse gas emissions;
- To take action and make progress on efforts to lower GHG emission intensity of their operations and products, and to disclose about it in line with the four core elements of TCFD disclosure: governance, strategy risk management, metrics and targets;
- To enter direct time-bound engagement dialogue with Alliance members and/or other investor initiatives to discuss efforts to decarbonise their business by 2050.64

These individual and joint engagement activities can take four different forms:[65]

- Bilateral corporate engagement with a company or collaboratively in the framework of the CA100+ initiative or any other engagement initiative ensuring that the Alliance ambition is met;
- Sector and value chain engagement, engaging simultaneously with numerous companies from the same sector or value chain;[66]
- Publishing position papers on an issue or sector, which can be used to anchor and leverage Net-Zero engagement activities;
- Engaging with Asset manager, to evaluate their efforts to understand and manage the risks

63 For a detailed view of Alliance members' corporate net-zero expectations, please refer to the engagement track strategy paper and subsequent documentation.

64 However, companies should not discuss nor share information which could trigger antitrust or other regulatory laws and regulations or amount to insider information.

65 The Alliance members are of different size, geography, and business nature, therefore they have different engagement strategies, and operations, thus a one-size fits all approach does not fit, and the Alliance identifies a set of ways in which the members can set and report on targets.

66 In all cases, collaborative engagement will be undertaken with proper respect of antitrust laws and regulations or applicable regulatory requirements.

of climate change, while also taking action to influence transformational activities in climate change mitigation in line with the long-term interests of their customers.

These engagement **activities seek to achieve a common outcome**:

- The intent of Alliance engagement activities is to increase, over time, the percentage of portfolio companies that are aligned with the Alliance's corporate net-zero expectations.
- This outcome is approached using a "portfolio coverage science-based target", irrespective of individual attribution for this outcome.
- In addition, the Alliance is also:
  - considering the development, over time, of more granular KPIs for assessing portfolio progress;
  - monitoring and advocating for the development of scalable methodologies and guidelines for attributing engagement outcomes; and
  - assessing a 5-years stock take of SBT portfolio coverage in key Alliance sectors
- With that aim in mind, indicators are being developed by each engagement stream to enable members to refine their monitoring of engagement outcomes, and that of the Alliance as a whole. These indicators and guidelines will be refined and tested, over time and in relationship with industry frameworks (e.g. PRI reporting framework, CA100+ reports, IFC Operating Principles for Impact Management), regulatory frameworks (e.g. EU ecolabel and other RI labelling schemes or rules), and academic guidance. Developing the ability to robustly forecast these KPIs would then be critical to extending the use of these indicators from a monitoring purpose to a target setting purpose.

By focusing on collective goals and the delivery of positive real-world outcomes (the Net Zero expectations and its expanded coverage), through enhanced collaboration on identified three engagement levers among investors, the AOA engagement activities are consistent with the PRI Active Ownership 2.0 framework.[67]

To define their 2025 engagement target(s), individual Alliance members should:

First, Alliance members should identify either 20 emitters with focus given to those generating the most emissions or those responsible for 65% of emissions in their corporate bond/equity portfolio ("owned emissions") and set either direct, collaborative, positions or asset manager action targets, with a focus on non-aligned emitters.[68]

To that aim, Alliance members should

- select one or more of the four contributions to net-zero engagement activities that are most relevant for their engagement activities, style and resources; and/or
- define their own outcome based KPI from the common KPI framework below.

67 PRI Active Ownership 2.0, available at unpri.org/download?ac=9721

68 Non-aligned refers to those which do not already have Paris Aligned commitments, or do not have a concrete set of mid-term reduction targets. Alignment with PAII or CA100+ benchmarking criteria is encouraged.

7.1. Engagement KPIs[69]

7.1.1. KPIs linked to Alliance member contribution to joint Alliance engagement activities

Corporate and sector engagement contributions:

Number of additional collaborative engagements (e.g. via CA100+ or any other engagement initiative) supported by the member through the Alliance:

- Background. This KPI aims to capture the additionality of the Alliance membership to collaborative engagement.
- Definition. Additional engagements are any kind of support in collaborative engagement e.g. taking a leadership role or active participation. It notably includes contribution to the creation of a sector engagement protocol (i.e. establishing the asks) or consistently contributing to a sector round table by either representing their institution as a member of the Alliance or helping co-organise the engagement.

Asset management engagement contributions:

Number of AMs engaged on climate change policies and practices through the Alliance

- Background. This KPI aims to capture the additionality of the Alliance membership to joint asset management engagement activities.
- Definition. The Alliance member expected contribution to the AM engagement process as defined in the Alliance Asset Manager Guideline, which is an Alliance internal document.

Note. Engagement is to be prioritised by the track during the target setting period and it will include the four largest asset managers by AUM.

Position papers engagement contributions:

Number of contributions to Alliance position papers

- Background. This KPI aims to capture the additionality of the Alliance membership to joint publication of position papers.
- Definition. Contribution to a position paper is defined as the material participation to its development through the engagement track.

Note. It is estimated that the track will produce 2–3 positions per year, beginning with Coal, integration of climate change in International Accounting Standard, Oil Sands, Arctic, Deforestation and negative emissions technology (CCS, offset markets).

69 In all cases, Alliance membrs will implement their strategies with respect antitrust laws and regulations or applicable regulatory requirements.

7.1.2. KPIs linked to Alliance member engagement activities that contribute to achieving net-zero commitments

Corporate and sector engagement contributions:

Number of corporate engagements aligned with the Alliance's net-zero corporate expectations led or supported (directly or by explicit request given to an AM).

- Background. This KPI aims to capture all bilateral corporate engagement activities that contribute to more companies implementing the Alliance net-zero corporate expectations.
- Definition. The net-zero corporate expectations are defined in the Alliance engagement strategy and will be further circulated in a standalone document. Engagements that do not meet this level of ambition should not be included. Engagement performed through the Alliance can be included. They can be specified by members through the definition of a sector engagement protocol (individually or via other initiatives), or the participation in a sector round table (individually or via other initiatives). Engagement performed through the Alliance can be included, but would need to be indicated to the AOA to avoid their double counts if the AOA aggregates targets.

Asset management engagement contributions:

Number of asset managers engaged with based on their on climate change policies and practices in line with Alliance AM expectations

- Background. This KPI aims to capture a member's engagement activities with asset managers that are aligned with the Alliance AM expectations.
- Definition. The Alliance AM expectations are defined in the Alliance Asset Manager Guideline, which is an Alliance internal document. Engagement performed through the Alliance can be included.

Position papers engagement contributions:

Number climate position papers published in line with Alliance corporate expectations

- Background. This KPI aims to capture a member's contribution to building reference climate positions.
- Definition. Position papers are public documents which define either independently or through collaborations, the member's position on topics (i.e. that encompass multiple corporates and may have policy implications) of key relevance to the net-zero agenda. The positions must include a clear reference to the net-zero/1.5°C goal. The positions that a member has co-authored through the Alliance can be included.

7.1.3. Cross-cutting outcome through Net-Zero Portfolio Coverage (optional for target setting, compulsory to report on a 5-year basis)

Engagement contributions:

Portfolio science-based target[70] coverage in key Alliance sectors

- Background. Investee companies are beginning to set their own science based targets. Portfolio coverage is the portion of an asset owner's portfolio which is covered by a company target. This KPI aims to capture progress over time and scale on the outcome of engagement activities, i.e. a growing implementation by portfolio companies, setting their own net-zero or science-based targets.

Methodological note to members:

The Engagement Track of the Alliance has defined its consolidated activity targets for 2020 and will proceed to defining an annual roadmap and targets. This document should guide members when defining KPIs linked to Alliance member contributions to joint Alliance engagement activities.

Engagement activities are also integrated into the reporting framework. The general reporting framework architecture is summarized below:

- individual target-setting, monitoring and reporting by a member (asset owner),
- consolidated target setting, monitoring and reporting by the Alliance.

Each member can decide to report on multiple KPIs identified in the engagement framework above, while setting targets on a more limited number of KPIs.

When defining targets, Members are advised to consider the additionality and outcomes of their engagement activities. This may lead members to focus significant resources on developing background positions, sector, company and asset manager research.

70 Science based targets as verified by the SBTi as well as corporate targets that can be shown to be based in scientific scenarios will be accepted (reference to appropriate sector pathways should be included in the latter case). Verified targets are encouraged.

8. Financing Transition Targets

8.1. Alliance Financing Transition Overview and overall Strategy

The Alliance Financing Transition Track focuses on enhancing the supply side of climate solution investments in general but also specifically on growing climate solution investments within the Alliance members' investment portfolios.

Sector decarbonization of the real economy, and with this investment portfolios, can be achieved by a combination of the following approaches:

- **Decarbonisation of companies** (equity, corporate bonds), properties (real estate equity and debt) or projects (infrastructure) in the investment portfolios of an asset owner – investors with influence via engagement with companies, sectors, initiatives, policy.
- **Reallocation within one sector**, best-in-class strategy – understanding a company's "carbon emission performance" relative to its peers in the same sector allows an investor to re-allocate capital to the best performers.
- **Sector weighting, reallocation across sectors** – sector emission and emission intensity pathways need to be understood and may feed into the investor's strategic asset class allocation (SAA).
- **Investing in climate solution investments** – climate solutions are investments in economic activities that contribute substantially to climate change mitigation. These are solutions that reduce greenhouse gases by avoiding emissions and/or by sequestering carbon dioxide already in the atmosphere, or investments in climate change adaptation that contributes to enhancing adaptive capacity, strengthens resilience and reduces vulnerability to climate change.

The Alliance Financing Transition Track focuses on the latter approach, enhancing climate solution investments.

Asset Owners have a fiduciary responsibility to seek the maximum risk-adjusted returns on their investments. Risk/return expectations of climate solution investments must fulfil such requirements. This means among other criteria that no investments in the green transition and climate solutions should be conducted if they are expected to give a loss or perform significantly worse than other investments. The Alliance therefore strives to collaborate with public finance institutions like DFIs or policy to work on blended finance, de-risking and enlarging the supply side.

8.2. Scope of Financing Transition Track

Main goals of the Financing Transition Track (as described in the forthcoming Track's Strategy document) include:

1. **Enhance the supply side with regard to climate solution investments by**
   - commonly working on building new vehicles together with DFIs, governments, and asset managers, for example, via blended finance vehicles for climate solution investments as well as considering carbon removal instruments
   - analysing and working on de-risking together with the other Alliance tracks
   - supporting the policy track in making climate solutions more financially attractive by more appropriate pricing of externalities

2. **Enhance the transparency on the demand side / with investors by**
   - screening existing platforms and vehicles
   - developing a digital road map
   - building up sector and asset class expertise and providing guidance especially with respect to new technologies
   - fostering knowledge and opportunity sharing (while complying with anti-trust regulation) e.g. on new technologies, analysing carbon removal instruments and others
   - understanding general financing needs per sector and region
   - working together and / or facilitating round tables with the sectors, other Alliance tracks (especially engagement track) and other initiatives (eg. WEF, ETC, RMI, CA100+, etc).
3. **Grow Alliance investment portfolios' investments in climate solution investments alongside decarbonizing by**
   - reporting on this progress
   - developing a principle-based climate solution investment reporting framework reviewing existing methodologies and criteria e.g. the green bond principles, EU taxonomy, real estate certificates and others

8.3. Definition of "Climate Solution Investments"

The Alliance Financing Transition Track focuses on enhancing the supply side of climate solution investments in general but also specifically for the members investment portfolios.

To enable consistency across the Alliance membership, a definition for "Climate Solution Investments" has been created taking into account publicly available definitions:

> Climate Solution Investments are investments in economic activities **considering to contribute substantially to climate change mitigation** (solutions substantially reducing greenhouse gases by avoiding emissions and/or by sequestering carbon dioxide already in the atmosphere) or/and **climate change adaptation** (where that activity substantially contributes to enhancing adaptative capacity, strengthening resilience and reducing vulnerability to climate change). Economic activities making a substantial contribution to the first two objectives (climate change mitigation or adaptation) must be assessed to ensure they do not cause significant harm to all remaining environmental or social objectives.

The Financing Transition track decided to track both direct solutions and adaptation technologies as definitions of Climate Solution Investments.[71]

8.4. Financing Transition Targets and Reporting

In summer 2020, the Alliance facilitated an inventory on Climate Solution Investments.

The purpose of the inventory was:

- to understand the base line of climate solution investments for the Alliance
- to understand the Alliance expertise in specific climate solution investments and
- to kick off the discussion on the Alliance members preferred respectively currently implemented metrics regarding climate solution investments

As a result, the Alliance will introduce a principle-based individual Alliance members' assessment on climate solution investments which will feed into the Alliance reporting.

Financing Transition Targets ensure that Alliance members use the resources and capacities available to them to grow the supply side of net-zero solutions, via the means as described in section "Scope of Financing Track". The Alliance members are asked to build on their network to governments, asset managers, industry and other stakeholders to contribute to this overarching target.

Particularly asset owners should explore supporting the growth of Green Buildings, Renewable Energy in Emerging Markets, Sustainable Forestry, Green Hydrogen development, among others.

71 This is also in line with the EU Taxonomy (however, this alignment does not mean that the EU Taxonomy should be applied in all cases, notably non-EU members which do not need to comply with EU Taxonomy approaches)

In general, the financing transition track targets are two-fold. In case an Alliance member decides to set a target for "Financing Transition" the member will report on progress in investments in climate solutions and at the same time the Alliance member will contribute to enlarge the universe and build solutions.

Financing transition - Target setting

Targets	1. **Report on progress on positive trend in climate solution investments** (without a specific quantitative progress target) **and** 2. **Number of contributions to activities enlarging the universe and building solutions** eg. dialogues with DFIs, AMs and other stakeholders building vehicles, conducting round tables increasing the supply side of low carbon investments
Level of target setting	▪ **On Alliance level** for external publication ▪ Internal yearly AOs individual reporting for information, tracking and consolidation
Reporting on progress...* *details to be discussed	▪ Invested/committed value in climate solution investments ▪ Avoided emissions (as data availability and quality allows) ▪ Portfolio revenue share in green/brown activities respectively EU taxonomy compliant (as data availability and quality allows) Report on OECD and non OECD countries

8.5. Alliance Collective Reporting on Progress Target

Public reporting on Financing Transition will be conducted on Alliance level.[72] If desired, members are free to report individually to the public.

It is required that all Alliance members which chose this target individually contribute to the overall collective targets via the Financing Track – as stated in the section "Scope of Financing Transition Track".

Alliance members are asked to report their investments in a standardized way such that the Alliance may summarise and publish aggregate figures. Members will decide whether their individual figures can be published by the Alliance. For the time being, the Alliance will report on progress on a climate-positive trend, and if possible in a quantitative way – without a specific numerical progress target.

Common reporting on positive trends may include:

- **invested/committed value** in climate solution investments e.g. green buildings, renewable energy, carbon sinks to remove greenhouse gasses (GHGs) from the atmosphere (Carbon Dioxide Removal) or "net-negative emissions"
- **associated emissions avoided** (as data availability and quality allows)
- **revenue share in "green/polluting" activities respectively EU taxonomy compliant reporting** (as data availability and quality allows; note Members outside EU are not asked to follow this particular framework in detail)

Transitioning bonds or projects may qualify for a climate solution investment in cases where concrete plans are available how the companies/projects align with a Net Zero pathways and/or the Paris Agreement.

Reporting will disaggregate information on OECD and non-OECD countries. Trends in polluting/green assets along with the EU taxonomy will also be of interest going forward. We will progress on this effort as data availability grows as well as examine how to treat Alliance members not located in the EU. For clarity, here we are considering the portfolio revenue share from green/grey/polluting activities. The "climate positive trend" then being a flow of revenue share from polluting to green. This would be built up from a granular level. For example, an energy firm is 20% polluting (from some legacy coal power plants) and 80% green (wind farm building and operation).

72 When conducting roundtables, care will be given to ensure that the Alliance members are not required to share information that would amount to insider information and that members comply with all antitrust and other regulatory laws and regulations. Additionally, no insider information will be shared at these roundtables.

The attractiveness of this approach is that it can be implemented using data from major providers, and that it not only captures portfolio construction choices (to allocate to obviously green assets/ projects) but also captures the outcomes of successful engagement to transition firms' activities.

8.6. Enlarging the universe and building solutions Target

8.6.1. Key Metrics

a. Conduct round tables or platforms on selected asset classes/sectors/new technologies to increase the supply side of low carbon investments and work on increasing transparency for investors

With a focus to enlarge geographic-coverage and upscale new (but mostly known) technologies, the Alliance should conduct at least 3–5 annual roundtables on a sector or asset class basis by 2025.

In a first step, the Alliance will determine which asset classes and sectors are the most promising for financing transition and focus upcoming work on providing ways to help overcome current barriers, bring relevant stakeholders to the table and help scale up investment opportunities in those areas.

The **work on selected asset classes/sectors** includes, but is not limited to, conducting annual roundtables[73] (sector/asset class; **at least 3–5 until 2025**) to connect stakeholders (e.g. Alliance member, sector leaders cross value chain, policy, financial institutions, etc.) **and together work on solutions to increase the supply side of low carbon investments**. Beyond the roundtables, further work will be done by performing deep dives into the value chain and identifying stakeholders. Collaboration with the Engagement and Policy Track on Sector Roundtables in envisioned to enable a cohesive and coherent approach across the Alliance efforts.

New technologies need to be scaled in order to decarbonize sectors like heavy transport, aviation, shipping, cement and steel production that cannot be (fully) electrified. On a technical level PTX and E-fuels (hydrogen, methanol, ammonia) and CCS/CCUS are already known technologies that has not yet reached a decisive level of economies of scale. This also means that the most cost-effective solutions have not yet emerged.

Identified solutions and investment opportunities in (new) technologies and their upscaling will be displayed in a digital map providing investor relevant information in an open-source manner. This digital map may be hosted by the Alliance, with reference to available information and sources to deepen the investors' knowledge.

b. Establish working relationship with Development Banks, Governments or other partners (by 2025)

The Alliance will establish working relationship with 5 DFIs, governments or other partners (by 2025) to enlarge geographical coverage or to unlock capital for new technologies. The focus will be on establishing partnerships to help create investment opportunities with acceptable risk profiles.

While renewable energy infrastructure is on the rise in most OECD-economies due to favorable cost developments, capacity building in the Emerging Markets and less developed countries is still limited, same for new technologies also in the developed markets. Huge gains can be achieved by transferring well-known solutions to EM´s but political conditions and financial risk premiums are barriers that have to be addressed. Collaboration with DFIs and governments will help overcome these barriers via blended finance structures. The Alliance will list and create engagements with key players, including OECD-DAC, Governments, EDFI and World Bank institutions to mitigate risks..

73 When conducting roundtables, care will be given to ensure that the Alliance members are not required to share information that would amount to insider information and that members comply with all antitrust and other regulatory laws and regulations. Additionally, no insider information will be shared at these roundtables.

9. Policy Engagement

A supportive policy environment is critical to the viability of a net-zero transition. Without decisive action by governments to reduce emissions, there will remain insufficient market incentives to allocate capital in line with a 1.5-degree trajectory.

Yet the private sector, including investors, can play an important role in raising government awareness and making the business case for getting back on track with the Paris Agreement and achieving climate neutrality by the middle of the century.

Asset owners are in a unique position in the financing value chain, especially so those setting themselves portfolio targets and therefore being dependent on change in policy and real economy to achieve ones. The Alliance policy track seeks to amplify investor voices to realize these goals.

The Alliance is committed to policy advocacy as a necessary means to achieve net-zero by 2050. Individual members are encouraged to engage governments to increase ambition on decarbonisation, for example by participating in The Investor Agenda.[74] New Alliance members are encouraged from all geographies and in time the Alliance membership will be truly global in its geographic coverage. The Alliance policy track has developed a strategy to work on these three priorities:

1. Embedding net-zero by 2050 in the post COVID economic recovery, NDCs and national emission reduction plans, with a clear commitment to a just transition
2. Sector policies (real economy and financial sector) to promote transition
3. Promotion of mandatory climate reporting and transition plans

In the execution of this strategy the track will leverage policy and regulatory messages developed in the other tracks, e.g. MRV where it relates to disclosure recommendations, or engagement where it relates to sectoral policy barriers.

The overarching aim of the policy track is to seek public policy consistent with the achievement of global net-zero emissions by 2050 and the realisation of the goals of the Paris Agreement. Without public policy properly to implement the Paris Agreement, Alliance members will be unable to achieve their goal of net-zero portfolio emissions by 2050.

The Alliance will also advocate for financial market regulation as well as support structures that enable FIs to finance the net-zero transition, e.g. disclosure requirements in line with TCFD-recommendations, development of country-specific transition plans, and raises awareness of climate risk impact.

9.1. Embedding net-zero by 2050 in the economic recovery, NDCs and national emission reduction plans

The coronavirus pandemic has upended financial markets, government spending plans as well as delivering a profound economic shock. The imperative to manage the crisis and provide relief has knocked climate change off the agenda of governments and markets. Yet the threat to the planet remains and once there is evidence that efforts to control the virus are taking hold, the focus will once again shift to resilience and recovery. Ensuring that planning for net-zero is at the heart of efforts to repair economies are a high priority.

The new round of NDC submissions required under the Paris Agreement is a potential catalyst for enhanced commitments and emission reduction plans consistent with the goals of the Paris Agreement and net-zero emissions by 2050. Maximizing this opportunity is a key goal for the policy track.

74 theinvestoragenda.org/

9.1.1. Targeted Goals

a. Embedding climate goals at the heart of economic recovery plans
b. Commitment to enhance current NDCs with 2025 and 2030 targets that are in line with a trajectory to achieve net-zero GHGs by 2050 or sooner from developed countries
c. Implement net-zero commitments and trajectories via best practice national policy mechanisms, including: climate legislation enshrining the net-zero commitment; intermediate targets; an independent body to monitor and advise government; and appropriate carbon pricing regimes.

9.2. Sector policies to promote transition

Sector policies are a key component of effective climate policy, and the Alliance will advocate for sector policies consistent with net-zero emissions by 2050 or sooner from developed and large emitter countries complemented by a commitment to a just transition.

9.2.1. Targeted Goals

a. Elimination of direct and indirect fossil fuel subsidies
b. Policy measures (via regulation or carbon pricing or both) to deliver the national phase-out of fossil fuel technologies e.g. coal-fired power and coal mining, sale of new internal combustion engine vehicles
c. No deforestation, no peat, no exploitation policies[75] (NDPE)
d. Support for afforestation and enhancement of natural capital, and a net-zero pathway for agriculture
e. Support for and potentially redirecting of subsidies for scale-up of new technologies that will provide solutions in hard-to-abate sectors, e.g. CCS, green hydrogen
f. Sectoral net-zero policies for key economic sectors: energy, power, industry, agriculture, automotive, aviation and shipping
g. Commitment to develop granular short, medium and long term zero carbon infrastructure plans.

9.3. Promotion of mandatory climate reporting and transition plans

Support the COP 26 presidency, provide investor support for mandatory TCFD reporting and net-zero transition plans in advanced markets by COP 26.

9.3.1. Policy track working methods

The policy track will operate primarily through:

a. Direct engagement with politicians / officials of target countries including accounting and audit standards setters to ensure integrated reporting
b. Private letter writing to officials from alliance members
c. Attendance at UNFCCC talks in Bonn and Glasgow
d. Leveraging UN platforms (e.g. UNSC office, the Coalition of Finance Ministers for Climate Action) and key moments* (e.g. World Bank meeting, London & NY Climate Action Weeks, Petersberg Dialogue, EU-China Summit, PRI in Person, Japan TCFD summit, IMF annual meeting). *At least some of these events may be rescheduled due to travel restrictions resulting from the coronavirus.
e. Mobilising Alliance members to sign appropriate investor statements
f. Letter writing to target countries or multilateral fora
g. Media activities

75 Refers to no exploitation of the rights of indigenous peoples, workers and local communities.

9.4. Policy track partnerships

The policy track will work in close partnership with the British Government's COP26 unit so that investor influence is deployed appropriately with the Presidency's target countries alongside diplomatic and political influence. Working with Mark Carney, as Finance Adviser for COP26, as well as the wider COP26 Finance team, will be particularly important.

The Alliance's relationship with the European Commission and Parliament, and leading EU member states, will also be important given the EU's climate leadership and shared agenda, and the predominance of major European asset owners among the Alliance's current membership. The policy track will leverage output from other tracks (notably MRV, engagement, and financing transition) as well as PRI's climate policy programme to develop a specific and targeted set of policy goals.

The Alliance will work in coordination with the Investor Agenda, whose policy working group activities are led by IIGCC and the Investor Group on Climate Change (IGCC). The goal will be to maintain a consistency of investor asks and to ensure that target countries are covered by in-person engagement by either the Investor Agenda and/or Alliance. Finally, the Alliance will work in coordination with all others to maintain consistency of investor goals and to ensure that target countries are covered by in-person engagements

10. Alliance Recruitment Targets

The target is to achieve steady growth, reaching 200 members or USD25tn by 2025, for the full member category.

The target of the Alliance is to continue to grow in AUM, membership, and regional representation to achieve high impact in the Alliance ambition for a net-zero economy by 2050. The more assets under management is linked to a net-zero target the higher the real-world impact. The more assets owners are active within the Alliance, the higher the impact in local and global markets, sector dialogues and political debate and developments to drive the net-zero ambition.

The recruitment target is achieved by:

- Alliance members support outreach (all types), especially within their region
- Identifying strategic opportunities e.g. in conferences, events, etc.
- C-suite relationships
- Arranging bilateral meetings at key events
- Support by the Alliance Scientific Advisory Committee (currently WWF and M2020)
- Support of the PRI signatory relations team

The target is to achieve steady growth, reaching 200 members or USD25tn by 2025 for the full member category. In its first year,[76] the Alliance experienced a 140% increase in membership.

76 Inception of Alliance September 2019 to September 2020.

11. Reporting on Annual Progress and 5-year Targets

Reporting on progress is firmly rooted in the Commitment of the Alliance. For the Alliance and its members, it is important to publicly and transparently communicate on progress both individually and collectively. Members have committed to publish targets and report on progress in line with Article 4.9 of the Paris Agreement. This reflects Alliance's objective of reporting progress to the private sector, and particularly owners of capital, so that this progress can be taken forward together. Transparency on progress is also relevant for other stakeholders, such as companies held in the portfolio of Alliance members, the clients of institutional investors as well as the general public, recognizing that climate change is a challenge that confronts us all. To this end the Alliance has worked through its inaugural year to establish a well-structured reporting framework, which will enable investors to report on the set targets as well as to disclose their progress to the Alliance.

The reporting framework was developed according to the "minimum criteria" principle and in line with the recommended targets to be set by the members. As such, the reporting framework for the first year only reflects targets that are clearly identified and described in the Target Setting Protocol. Each member is encouraged to go beyond the Protocol by setting more aspirational ambitions. More ambitious quantitative targets can be submitted through the framework; any target category which is not (yet) covered and therefore outside the Target Setting Protocol is not collected. However, the member is free to publish such targets itself. The future reporting framework may be adjusted on the basis of the first-year experience to further assist members in target reporting. Adjustments could be made, for example, to cover target categories that are not defined by the Protocol or that explanatory information is disclosed voluntarily.

Due to the nature of the Target Setting Protocol, the reporting framework is designed so that the submission of certain parameters triggers the release of additional linked information. Though, in order to be in line with the Target Setting Protocol, it is not necessary to fill in the entire reporting framework. The current framework also offers the flexibility to choose reporting metric for certain data.

Each member initially publishes its targets independently. Members will submit their qualitative reporting annually to AOA. Additionally, members will be asked for selected quantitative input on an annual basis. Quantitative reporting against the Target will occur every 5 years.

The Alliance will issue an annual qualitative progress report which will base on the Alliance's member reporting to cover progress to date. In addition, the Alliance will publish a quantitative report every 5 years. For this purpose, the Alliance will release some of the submitted data in aggregated form. Member-specific data will be made available via company links if provided to the Alliance.

Additional information included in the report will be about governance; membership growth; progress from all 'working group' tracks, including references and updates to the MRV Target Setting Protocol. Furthermore, the Alliance will report on its engagement progress with collaborative initiatives, asset managers, corporates as well as policy makers; and provide an overview related to financing the transition.

Annex I: Financial Sector Classifications

OIL & GAS		
Proposal Financial Sector - Energy and O&G		
NACE	B - Mining and quarrying	B5 - Mining of coal and lignite
		B6 - Extraction of crude petroleum and natural gas
		B7 - Mining of metal ores
		B8 - Other mining and quarrying
		B9 - Mining support service activities
BICS - Bloomberg	Energy	Coal
		Oil & Gas
		Oil Comp-Explor&Prodtn
		Oil Comp-Integrated
		Oil Refining&Marketing
		Oil&Gas Drilling
		Oil-US Royalty Trusts
		Oil&Gas Services
		Pipelines
		Renewables
GICS - S&P and MSCI	Energy	Energy Equipment & Services
		Oil & Gas Drilling
		Oil & Gas Equipment & Services
		Oil, Gas & Consumable Fuels
		Integrated Oil & Gas
		Oil & Gas Exploration & Production
		Oil & Gas Refining & Marketing
		Oil & Gas Storage & Transportation
		Coal & Consumable Fuels

UTILITIES

Proposal Financial Sector - Utilities / Electric Generation and Distribution and Gas distribution		
NACE	D - Electricity, gas, steam and air conditioning supply	D35 - Electricity, gas, steam and air conditioning supply
		D35.1 - Electric power generation, transmission and distribution
		D35.1.1 - Production of electricity
		D35.1.2 - Transmission of electricity
		D35.1.3 - Distribution of electricity
		D35.1.4 - Trade of electricity
		D35.2 - Manufacture of gas; distribution of gaseous fuels through mains
		D35.2.1 - Manufacture of gas
		D35.2.2 - Distribution of gaseous fuels through mains
		D35.2.3 - Trade of gas through mains
		D35.3 - Steam and air conditioning supply
		D35.3.0 - Steam and air conditioning supply
BICS - Bloomberg	Utilities	Electric
		Distribution
		Generation
		Integrated
		Transmission
		Independend Power Producer
		Gas
		Distribution
		Transportation
		Water
		Water
GICS - S&P and MSCI	Utilities	Electric Utilities
		Companies that produce or distribute electricity. Includes both nuclear and non-nuclear facilities.
		Gas Utilities
		Companies whose main charter is to distribute and transmit natural and manufactured gas. Excludes companies primarily involved in gas exploration or production classified in the Oil & Gas Exploration & Production Sub-Industry. Also excludes companies engaged in the storage and/or transportation of oil, gas, and/or refined products classified in the Oil & Gas Storage & Transportation Sub-Industry.
		Multi-Utilities
		Water Utilities
		Independent Power and Renewable Electricity Producers
		Companies that operate as Independent Power Producers (IPPs), Gas & Power Marketing & Trading Specialists and/or Integrated Energy Merchants. Excludes producers of electricity using renewable sources, such as solar power, hydropower, and wind power. Also excludes electric transmission companies and utility distribution companies classified in the Electric Utilities Sub-Industry.
		Renewable Electricity
		Companies that engage in the generation and distribution of electricity using renewable sources, including, but not limited to, companies that produce electricity using biomass, geothermal energy, solar energy, hydropower, and wind power. Excludes companies manufacturing capital equipment used to generate electricity using renewable sources, such as manufacturers of solar power systems, installers of photovoltaic cells, and companies involved in the provision of technology, components, and services mainly to this market.

TRANSPORT			
Proposal Financial Sector - Transportation / Airlines, Transportation / Light and Heavy Road Transport, Transportation / Shipping			
NACE	H - Transporting and storage	H49 - Land transport and transport via pipelines	
		H50 - Water transport	
		H51 - Air transport	
		H52 - Warehousing and support activities for transportation	
		H53 - Postal and courier activities	
	C - Manufacturing	C29 - Manufacture of motor vehicles, trailers and semi-trailers	C30.2 - Manufacture of railway locomotives and rolling stock
		C29.1 - Manufacture of motor vehicles	C30.2.0 - Manufacture of railway locomo-tives and rolling stock
		C29.1.0 - Manufacture of motor vehicles	C30.3 - Manufacture of air and spacecraft and related machinery
		C29.2 - Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	C30.3.0 - Manufacture of air and spacecraft and related machinery
		C29.2.0 - Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	C30.4 - Manufacture of military fighting vehicles
		C29.3 - Manufacture of parts and accessories for motor vehicles	C30.4.0 - Manufacture of military fighting vehicles
		C29.3.1 - Manufacture of electrical and electronic equipment for motor vehicles	C30.9 - Manufacture of transport equipment n.e.c.
		C29.3.2 - Manufacture of other parts and accessories for motor vehicles	C30.9.1 - Manufacture of motorcycles
		C30 - Manufacture of other transport equipment	C30.9.2 - Manufacture of bicycles and invalid carriages
		C30.1 - Building of ships and boats	C30.9.9 - Manufacture of other transport equipment n.e.c.
		C30.1.1 - Building of ships and floating structures	
		C30.1.2 - Building of pleasure and sporting boats	
BICS - Bloomberg	Consumer, Cyclical	Airlines	
		Airlines	
		Auto Manufacturers	
		Auto-Cars/Light Trucks	
		Auto-Med&Heavy Duty Trks	
		Auto-Truck Trailers	
		Auto Parts&Equipment	
		Auto/Trk Prts&Equip-Orig	
		Auto/Trk Prts&Equip-Repl	
		N/A	
		Rubber-Tires	
		Home Builders	
		Bldg-Mobil Home/Mfd Hous	
		Bldg-Residential/Commer	
		Retail	
		Textiles	

	Industrial	Aerospace/Defense	Transportation
		Building Materials	Transport-Air Freight
		Electrical Compo&Equip	Transport-Marine
		Electronics	Transport-Rail
		Engineering&Construction	Transport-Services
		Environmental Control	Transport-Truck
		Hand/Machine Tools	Trucking&Leasing
		Machinery-Constr&Mining	Transport-Equip&Leasng
		Machinery-Diversified	Trucking&Leasing
		Metal Fabricate/Hardware	
		Miscellaneous Manufactur	
		Packaging&Containers	
		Shipbuilding	
GICS - S&P and MSCI	Transportation	Air Freight & Logistics	
		Airlines	
		Marine	
		Companies providing goods or passenger maritime transportation. Excludes cruise-ships classified in the Hotels, Resorts & Cruise Lines Sub-Industry.	
		Road & Rail	
		Railroads	
		Trucking	
		Transportation Infrastructure	
		Airport Services	
		Highways & Railtracks	
		Marine Ports & Services	

<table>
<tr><th colspan="4">CEMENT</th></tr>
<tr><td colspan="4">Proposal Financial Sector - Materials / Cement</td></tr>
<tr><td rowspan="8">NACE</td><td rowspan="8">C - Manufacturing</td><td>C23.5 - Manufacture of cement, lime and plaster</td><td>C23.6.5 - Manufacture of fibre cement</td></tr>
<tr><td>C23.5.1 - Manufacture of cement</td><td>C23.6.9 - Manufacture of other articles of concrete, plaster and cement</td></tr>
<tr><td>C23.5.2 - Manufacture of lime and plaster</td><td>C23.7 - Cutting, shaping and finishing of stone</td></tr>
<tr><td>C23.6 - Manufacture of articles of concrete, cement and plaster</td><td>C23.7.0 - Cutting, shaping and finishing of stone</td></tr>
<tr><td>C23.6.1 - Manufacture of concrete products for construction purposes</td><td>C23.9 - Manufacture of abrasive products and non-metallic mineral products n.e.c.</td></tr>
<tr><td>C23.6.2 - Manufacture of plaster products for construction purposes</td><td>C23.9.1 - Production of abrasive products</td></tr>
<tr><td>C23.6.3 - Manufacture of ready-mixed concrete</td><td>C23.9.9 - Manufacture of other non-metallic mineral products n.e.c.</td></tr>
<tr><td>C23.6.4 - Manufacture of mortars</td><td>C24 - Manufacture of basic metals</td></tr>
<tr><td rowspan="8">BICS - Bloomberg</td><td rowspan="8">Industrial</td><td colspan="2">Building Materials</td></tr>
<tr><td colspan="2">Bldg Prod-Air&Heating</td></tr>
<tr><td colspan="2">Bldg Prod-Cement/Aggreg</td></tr>
<tr><td colspan="2">Bldg Prod-Doors&Windows</td></tr>
<tr><td colspan="2">Bldg Prod-Light Fixtures</td></tr>
<tr><td colspan="2">Bldg Prod-Wood</td></tr>
<tr><td colspan="2">Bldg&Construct Prod-Misc</td></tr>
<tr><td colspan="2">Ceramic Products</td></tr>
<tr><td rowspan="2">GICS - S&P and MSCI</td><td rowspan="2">Materials</td><td colspan="2">Construction Materials</td></tr>
<tr><td colspan="2">Construction Materials</td></tr>
</table>

Referenced documents and organisations

2Dii 'Paris Agreement Capital Transition Assessment (PACTA):' 2degrees-investing.org/resource/pacta/

Barkó, T., Cremers, M., & Renneboog, L. (2018) Shareholder Engagement on Environmental, Social, and Governance Performance' Center for Economic Research: papers.ssrn.com/sol3/papers.cfm?abstract_id=2977219%20

Bebchuk, L.A, Hirst, A., and Cohen, A. (2017) 'The Agency Problems of Institutional Investors' Journal of Economic Perspectives: scholarship.law.bu.edu/faculty_scholarship/340

Busch, T., Johnson, M., Pioch, and T., Kopp, M. (2018) 'Consistency of Corporate Carbon Emission Data' University of Hamburg: ec.europa.eu/jrc/sites/jrcsh/files/paper_timo_busch.pdf.

Caldecott, B. (2020) 'Achieving alignment in finance' UNEP-FI: unepfi.org/wordpress/wp-content/uploads/2020/08/200915_J932-CKIC-UNEP-ThoughtLeadershipSeries-DrBenCaldecott-11.pdf

Carbon Risk Real Estate Monitor (CRREM): crrem.eu

Cojoianu et al. (2019) 'The Economic Geography of Fossil Fuel Divestment, Environmental Policies and Oil and Gas Financing:' ec.europa.eu/jrc/sites/jrcsh/files/4_3_cojoianu_paper.pdf

Dimson, E., Karakaş, O. and Xi, L. (2015) 'Active Ownership' Review of Financial Studies: papers.ssrn.com/sol3/papers.cfm?abstract_id=2154724

Dyck, L. et al. (2019) 'Do Institutional Investors Drive Corporate Social Responsibility? International Evidence' Journal of Financial Economics: papers.ssrn.com/sol3/papers.cfm?abstract_id=2708589

E3ME Global Macro-econometric Model: camecon.com/how/e3me-model/

EU Action Plan on Sustainable Finance: ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en

European Banking Authority Regulatory Technical Standards (RTS): eba.europa.eu/regulation-and-policy/market-risk/draft-regulatory-technical-standards-rts-on-the-definition-of-market

EU Benchmarks Regulation: fca.org.uk/markets/benchmarks/eu-regulation

EU taxonomy for sustainable activities: ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en

Hoepner, A. et al (2016) 'ESG Shareholder Engagement and Downside Risk' European Corporate Governance Institute – Finance Working Paper: papers.ssrn.com/sol3/papers.cfm?abstract_id=2874252

IEA Well Below 2°C Scenario: iea.org/reports/world-energy-model

IFC Operating Principles for Impact Management: impactprinciples.org/

IIGCC (2020) Net Zero Investment Framework: iigcc.org/resource/net-zero-investment-framework-for-consultation/

IPCC (2018) 'Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty:' ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/

Kölbel, Heeb et al (2019) 'Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact' in Organization and Environment : journals.sagepub.com/doi/full/10.1177/1086026620919202

Lütkehermöller et al (2020) Unpacking the finance sector's investment commitments. First analysis of financial sector's investment related pledges on global GHG emissions: newclimate.org/wp-content/uploads/2020/09/NewClimate_Unpacking_Finance_Sector_Sept20.pdf

McKinsey (2018) Investor Leadership Network Pathways: investorleadershipnetwork.org/en/about/

MIssion 2020 'Joint letter to the IEA:' mission2020.global/letter-to-IEA/

Net-Zero Asset Owners Alliance (2020) 'Call for Comment:' unepfi.org/net-zero-alliance-call-for-comment-alliance-methodological-criteria/

One Earth Climate Model (OECM) Report (forthcoming research for the Alliance)

PCAF 'Draft Global Carbon Accounting Standard for the financial industry:' carbonaccountingfinancials.com/consultation-signup

Rogeli, J. et al (2018) 'Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development:' ipcc.ch/site/assets/uploads/sites/2/2019/02/SR15_Chapter2_Low_Res.pdf

Science Based Targets (2019) 'Foundation of science-based target setting:' sciencebasedtargets.org/wp-content/uploads/2019/04/foundations-of-SBT-setting.pdf

Task Force on Climate-related Financial Disclosures 'Final Report:' fsb-tcfd.org/publications/

UNEP-FI 'Net-Zero Asset Owners Alliance FAQ:' unepfi.org/word-press/wp-content/uploads/2019/09/asset ownerAOA_FAQ.pdf

UNFCCC Paris Agreement (2015): unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf

UN-PRI 'The Inevitable Policy Response:' unpri.org/what-is-the-inevitable-policy-response/4787.article

For more information please visit our website:
unepfi.org/net-zero-alliance

In partnership with: