Investment Leadership Programme

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PRI Principles for Responsible Investment

UN-convened Net-Zero Asset Owner Alliance

Advancing Delivery on Decarbonisation Targets

The second progress report of the Net-zero Asset Owner Alliance

September 2022

In partnership with:

WWF

GLOBAL OPTIMISM

Disclaimers

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Acronyms & abbreviations

ASCOR	Assessing Sovereign Climate-related Opportunities and Risks
ASEAN	Association of Southeast Asian Nations
AUM	Assets Under Management
COP	Conference of the Parties
CRREM	Carbon Risk Real Estate Monitor
ECF	European Climate Foundation
EIB	European Investment Bank
EMCAF	Emerging Market Climate Action Fund
EMDE	Emerging Markets and Developing Economies
ESG	Environmental, Social, and Governance
GFANZ	Glasgow Financial Alliance for Net Zero
GHG	Greenhouse Gas
IAASA	International Institute for Applied Systems Analysis
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
ISSB	International Sustainability Standards Board
KPI	Key Performance Indicator
MRV	Monitoring, Reporting, and Verification
NDCs	Nationally Determined Contributions
NZAM	The Net Zero Asset Managers initiative
NZAOA	The UN-convened Net-Zero Asset Owner Alliance
PCAF	Partnership for Carbon Accounting Financials
PIK	Potsdam Institute for Climate Impact Research
PRI	Principles for Responsible Investment
RtZ	Race to Zero
SAB	Scientific Advisory Body
SBTi	Science-Based Targets initiative
SEC	Securities and Exchange Commission
TPI	Transition Pathway Initiative
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environment Programme Finance Initiative
UNFCCC	UN Framework Convention on Climate Change
US$	United States Dollar
UTS	University of Technology Sydney
WWF	World Wildlife Fund

Message from the Steering Group

Climate change is increasingly being recognised as an existential crisis for the planet and its people. The surge in droughts, floods, and other climate-related natural disasters brings home in a tragically powerful way the truth of what climate scientists have long been saying. In the second part of the Sixth Assessment Report, released in February of this year, the Intergovernmental Panel on Climate Change (IPCC) warns that: “global warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans”.

Nevertheless, the IPCC also asserts, with high confidence, that although not all threats can be eliminated, “near-term actions that limit global warming to close to 1.5°C would substantially reduce projected losses and damages related to climate change in human systems and ecosystems”. This is both an opportunity to be seized and a responsibility to be assumed. The very future of the financial system depends precisely on it taking responsibility for emissions facilitated through investment, underwriting, and lending.

As providers of capital to enterprises, asset owners are uniquely placed to influence company behaviour and create momentum for the decarbonisation of the real economy. Unleashing this potential for ambitious, macro-level change has been the goal of the UN-convened Net-Zero Asset Owner Alliance since its inception in 2019—and it remains its driving mission to this day.

The Alliance’s members not only recognise this responsibility but are also seizing the opportunity to transform the finance industry in order to build a net-zero economy. The Alliance has exercised leadership by advocating for scaling blended finance for investment into climate solutions,

by clarifying the 'rules of the game' in stewardship, and by introducing new layers of accountability. The latter relies extensively on the Alliance's robust target-setting approach.

In January 2022, the Alliance released the second edition of its Target Setting Protocol, which included even more ambitious emission reduction ranges for 2025 intermediate targets and covered additional asset classes. The Alliance's membership moved immediately to its implementation, with all 42 members due to submit their targets doing so and with two more members doing so ahead of time. This puts members on track to achieve net-zero emissions by 2050 across their portfolios. The high ambition level, combined with the near-term nature of these targets is precisely what the finance sector needs more of.

However, the finance sector actors cannot achieve this alone. This is why in the run-up to the 27th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), the Alliance calls on governments to implement well-designed carbon prices as a broad-based incentive for cost-effective decarbonisation across sectors, and as a strong step towards meeting their Nationally Determined Contributions (NDCs) under the Paris Agreement. With the support of its strategic advisors, WWF and Global Optimism, the Alliance is also urging policymakers to prioritise the mandating of climate-related financial disclosures for companies. In this way, investors can take fully informed decisions, aware of their responsibility to both the financial system and the climate.

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Executive summary

The Alliance's activities are characterised by a combination of ambition, leadership, and an abiding commitment to collaboration. As this report reveals, recent years have witnessed a growing number of asset owners embrace their role as agents of change. Over the last year, the Alliance's membership has risen to 74 institutional investors. This translates to combined pool of assets under management (AUM) worth US$10.6 trillion. Support and guidance offered by the Alliance is helping to ensure that each and every one of these asset owners is on a trajectory towards reducing the emissions facilitated through their investment, underwriting, and lending activities.

Targets play a fundamental role in both directing and accelerating members' respective embrace of net zero. Targets push those that set them to take specific actions and realise specific goals within an agreed timeline. They also provide a mechanism for demonstrating progress and credibility to external audiences. Given the vital function of target setting, the Alliance's publication of an updated iteration of its Target Setting Protocol in January 2022 marks a significant landmark. The Protocol's second edition raises the level of ambition for 2025 emission-reduction targets as well as incorporating additional asset classes.

The Alliance expects all members to adopt intermediate targets within 12 months of joining. Under the Alliance's Accountability Mechanism, members must 'follow guidance or explain'. Failure to comply will result in a request for clarification and ultimately, should the need arise, in delisting. The Alliance has yet to be required to take such a step.

In 2022, the number of Alliance members setting short-term targets reached 44, collectively accounting for US$7.1 trillion in assets under management. This is up from 29 members in 2021, with a corresponding increase in AUM of US$2.5 trillion. The group which set sub-portfolio targets has also risen, reaching 41 members and more than doubling the total AUM under such targets to US$3.3 trillion (up from US$1.5 trillion last year).

Alliance members are also demonstrating leadership through their direct engagement with companies. Such conversations are having a material effect. The number of investees adopting science-based targets, for example, has more than tripled in the last year (up from 35 in 2021 to 122 in 2022). An increase in similar engagements with fellow asset managers is also occurring.

But engagement is not just about individual interactions. The Alliance also has a vision for helping create a clear, consistent policy environment to accelerate the net-zero transition. To this end, it has published a variety of policy-oriented discussion papers and position statements over the last 12 months. These offer in-depth looks into topics as varied as the energy security crisis, carbon pricing, and climate risk disclosure, among others.

The abiding message of this report is that a net-zero future remains possible. However, success depends on practical action, at scale, and urgently. Case studies from Allianz, Danica Partners, Dai-ichi Life, CalPERS, and Swiss Re demonstrate what is already being achieved. More must follow. The Alliance, together with its partners, will pull every lever at its disposal to ensure they do.

1. Introduction: Structural overview of the Alliance and centrality of reporting

1.1 The Alliance's ambition

The United Nations (UN)-convened Net-Zero Asset Owner Alliance ('Alliance', hitherto) is a growing, international group of institutional investors delivering on a bold commitment to transition their investment portfolios to net-zero greenhouse gas (GHG) emissions by 2050. This commitment aims to align members' investment portfolios to climate scenarios corresponding to a maximum global mean temperature rise of 1.5°C above pre-industrial levels. Seeking to rely on the best available scientific knowledge, the Alliance formulated its commitment and its target-setting methodology using no or limited overshoot scenarios put forth by the Intergovernmental Panel on Climate Change (IPCC). The Alliance formalised its commitment in a written document (the Commitment), all the facets of which are outlined in Box 1.

Box 1: The Alliance's Commitment (NZAOA 2022a)

Members that join 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 levels, 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 the Paris Agreement Article 4.9.

In order to meet their fiduciary duty to manage risks and achieve target returns, members recognise that the Commitment must be embedded in a holistic approach to managing sustainability considerations, incorporating but not limited to climate change, and must emphasize GHG emissions reduction outcomes in the real economy.

Understanding the paramount importance of the real-economy transition, members agree to 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.

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

To meet their 2050 pledge, Alliance members are required to set intermediate targets every five years—aimed at ratcheting up their ambition—in line with Article 4.9 of the 2015 Paris Agreement. More on the target-setting schedule will be discussed in section 2.1. With its unified, asset-owner voice, the Alliance is also well-positioned to create the space for the private sector to support the implementation of Article 2.1c of the Paris Agreement. Under this clause, all government signatories are obligated to “make financial flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development”.

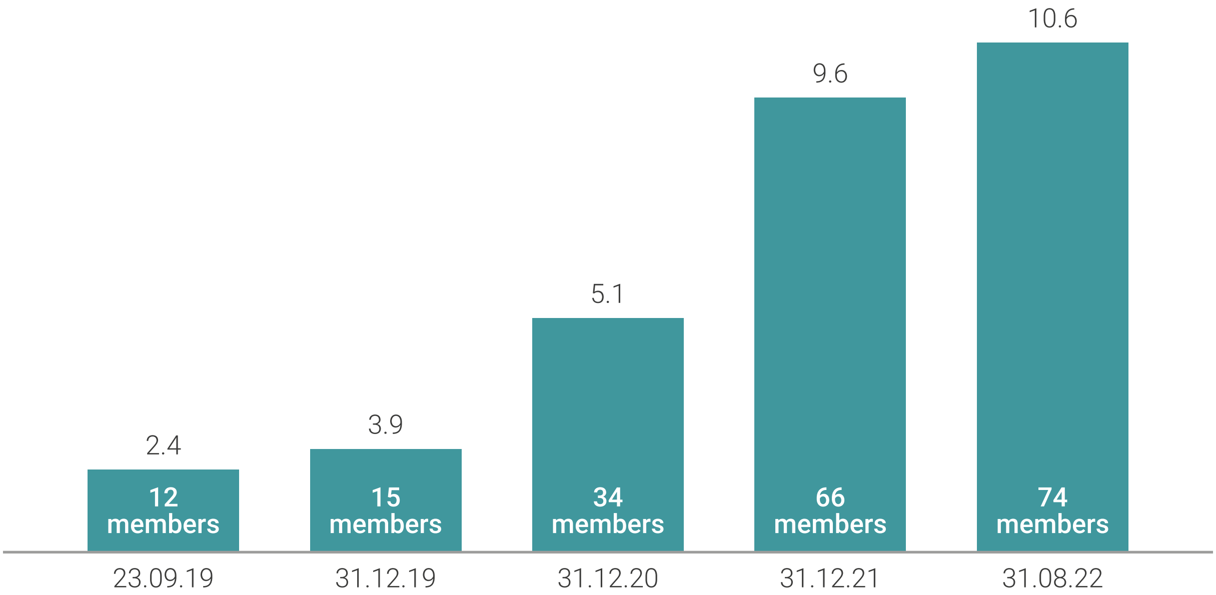
The Alliance’s focus on all three aspects of sustainability—namely, environmental, social, and governance—are illustrated in its Statement on the Energy Security Crisis (NZAOA 2022b) and in its position paper, Governmental Carbon Pricing (NZAOA 2022c). In particular, the “consideration of associated social impacts” referred to in the Alliance’s Commitment communicates a dedication for its members to ensuring a just transition to net zero. The just transition is a strategic approach based on the strong management of “both the positive and negative social and employment implications of climate action across the whole economy” (Robins et al. 2018, p.9).

Moreover, the Alliance operates within the understanding that what is at stake in the net-zero transition is the potential to “shape financial systems that are more effective in serving the needs of inclusive, sustainable economies and societies” (United Nations Environment Programme [UNEP] 2015, p.18). In order to support developing and emerging economies that are leading this “quiet revolution seeking to integrate sustainable development into the fabric of the financial system,” the Alliance devotes a workstream to scaling blended finance in emerging markets (UNEP 2015, p.xvii).

1.2 The Alliance in the net-zero universe

Three years after its creation in September 2019 at the UN Secretary General’s Climate Action Summit, the Alliance grew to represent 74 institutional investors. As of 30 July 2022, the combined assets under management (AUM) of its members stood at US$10.6 trillion. The Alliance’s recruitment goal is to grow either to 200 members or to US$25 trillion in AUM by 2025. The timeline of the Alliance’s growth thus far can be seen in Figure 1.

Figure 1: Growth of membership (total AUM in US$ trillion and number of members in the Alliance)



Source: Data from Alliance members collected by the Alliance's MRV Track

The growth of the Alliance has been mirrored by a proliferation of other net-zero initiatives. The Alliance was an original member of the Climate Ambition Alliance, which was launched at the same 2019 Climate Action Summit. In July 2020, the Climate Ambition Alliance renamed itself as the Race to Zero Campaign (RtZ). Led by two rotating High-Level Climate Champions for Climate Action, RtZ has minimum leadership criteria that all partner alliances and initiatives must meet. The campaign extends beyond the financial sector to include all actors in the real economy that are not national governments. With the objective of building momentum around the shift to a decarbonised economy, RtZ has to date mobilised 1,049 cities, 67 regions, 5,235 businesses, 1,039 higher education institutions, and investor alliances representing 441 investment firms within its net-zero pledge.

In addition to the Alliance, numerous sector-specific alliances have been formed since 2019. These include the Net-Zero Banking Alliance, the Net Zero Asset Managers initiative (NZAM), the Paris Aligned Investment Initiative, the Net-Zero Insurance Alliance, the Net Zero Financial Service Providers Alliance, and the Net Zero Investment Consultants initiative. A pan-sector coalition connecting these alliances is the Glasgow Financial Alliance for Net Zero (GFANZ), launched in April 2021 by the Presidency of the 26th Conference of the Parties (COP) to the UNFCCC, in tandem with the UN Special Envoy for Climate Action and Finance, Mark Carney. All members of GFANZ must first be accredited by RtZ.

GFANZ undertakes its strategically important, pan-financial mandate through three main workstreams that participating alliances contribute to. These workstreams focus on turning commitment into action. They centre around core areas viewed as critical to the net-zero transition, namely: net-zero transition planning for financial institutions; the mobilisation of private capital to emerging markets and developing economies (EMDEs); and support for public policies and regulations that enable the net-zero transition.

The Alliance also strives to work with other net-zero ambition initiatives beyond the financial sector in order to collaborate and catalyse the real economy towards achieving a net-zero world.

1.3 The Alliance's governance and accountability mechanism

The Alliance is convened by the UN, led by asset owners, and supported by civil society. The Alliance Secretariat is assembled by the United Nations Environment Programme Finance Initiative (UNEP FI) and the Principles for Responsible Investment (PRI). The strategic advisers comprise the World Wildlife Fund (WWF) and Global Optimism, which is led by Christiana Figueres, former Executive Secretary of the UNFCCC.

The Alliance also benefits from having a Scientific Advisory Body (SAB), which it consults in all its thought leadership pieces, such as position statements and discussion papers. The SAB is made up of four scientific institutions: the International Institute for Applied Systems Analysis (IIASA), the United Nations Environment Programme (UNEP), the University of Technology Sydney (UTS), and the Potsdam Institute for Climate Impact Research (PIK).

Diagram 1: The Alliance Ecosystem

Steering Group

5 AO Steering Group Members					2 UN Affiliated Conveners	
Asia Pacific	Europe	America	Africa	Non regional	UNEP FI (head)	PRI (CEO)

Advisory Group

Strategic advisory body:	Scientific advisory body:
Global Optimism, WWF	PIK, IIASA, UNEP, RMI, UTS

Secretariat

UNEP FI	PRI

2021 Tracks and underlying working groups

MRV Track	Financing Track	Engagement Track	Policy Track
Data and targets	Blended Finance	Asset Managers	
Infrastructure	Climate Solutions Investment Platform	Corporate	
Real Estate	Financing Target Setting & Reporting	Positions	
Reporting	Climate Benchmarks		
Scenarios	Financing the EM&LDCs		
Sectors			
Sovereign debt			
Target setting			
Warming methodologies			

Collaborators
SBTi-Finance, PCAF, Convergence & AFII

AOA Members

Supporters
IEN, GDV, VBDO, ASA, FFA, Insurance Europe, and A4S.

Source: The Alliance's own visualisation

The Alliance's decision-making bodies include the Steering Group, the All-Member Principals, and the Working Track Leads. Their authority and discretion are clearly articulated in the Alliance Governance Document.[1]

The Steering Group is composed of C-suite executives from member institutions as well as convening organisations. The Group is elected every two years by the All-Member Principals; it convenes on a quarterly basis and sets the strategic direction of the Alliance. The Chairperson of the Alliance is elected by the Steering Group members. Strategic Advisors, WWF, and Global Optimism counsel the Steering Group in its regular meetings. The current Steering Group's mandate extends to the end of 2023. The five elected members, which represent the five major regions of the world, can be seen in Diagram 2. Gender will also be taken into account in selecting future committee members to create more balance.

Diagram 2: The incumbents of the 2021–2023 Alliance Steering Groups

Asia-Pacific	Akiko Osawa, Nippon Life
Africa	Lesley Ndlovu, African Risk Capacity
North America	Charles Émond, CDPQ
Europe	Günther Thallinger (Chair), Allianz SE
Non-regional	Torben Möger Petersen, PensionDanmark
Co-convenor	Eric Usher, UNEP FI
Co-convenor	David Atkin, PRI

Source: The Alliance's own visualisation

All Principals meet quarterly to discuss key strategic elements of the Alliance and cast their votes in all matters related to the Alliance's governance. However, Alliance members recognise that signing the Commitment alone will not sufficiently advance the net-zero transition. As such, members work collectively to develop methodologies and best practices as well as to advocate for systemic change with key stakeholders (for example, corporates, asset managers, key international agencies, and policymakers).

The Alliance's work is organised into four substantive working tracks: (i) Monitoring, Reporting, and Verification (MRV); (ii) Financing Transition; (iii) Engagement; and (iv) Policy. A cornerstone of the Alliance, MRV strives to ensure credibility, accountability, and transparency within members, within the Alliance itself and with other relevant stakeholders. The Financing Transition, Engagement, and Policy Tracks form the implementation axis of the Alliance; they develop, advocate for, and advance real-world change. The work of the programme tracks is accelerated by the Communications and the Recruitment Track.

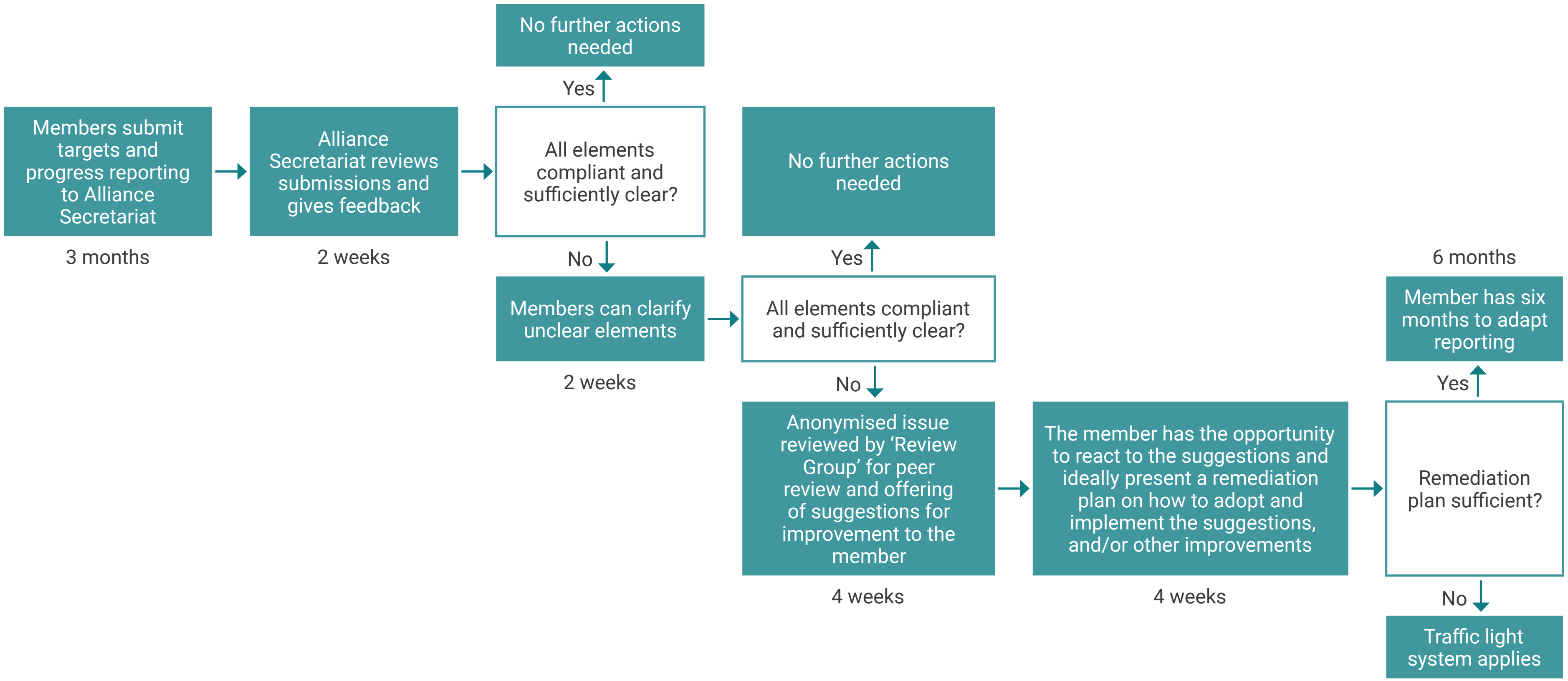
1 Revised in March 2022 and publicly accessible: unepfi.org/wordpress/wp-content/uploads/2022/07/NZAOA-Governance-Document_Approved-2022-2.pdf.

All members of the Alliance are required to join working tracks. Each track produces draft knowledge products that seek to raise the climate ambition in the Alliance as well as in the wider asset-owner space. Positions and guidance documents are particularly central to this ambition as members are expected to integrate them into internal policy or explain why their circumstances might not allow them to do so at that point in time.

1.4 What happens if a member does not meet Alliance expectations?

The Alliance operates with a 'follow guidance or explain' approach across all its work. This extends to its activities around target setting. It is important not to mistake this provision for laxity as it has been formulated to include robust reviews under the Alliance Accountability Mechanism (see Diagram 3). For all members that might not fulfil with Commitment's requirements, the Alliance Secretariat will seek clarification for the non-compliance.

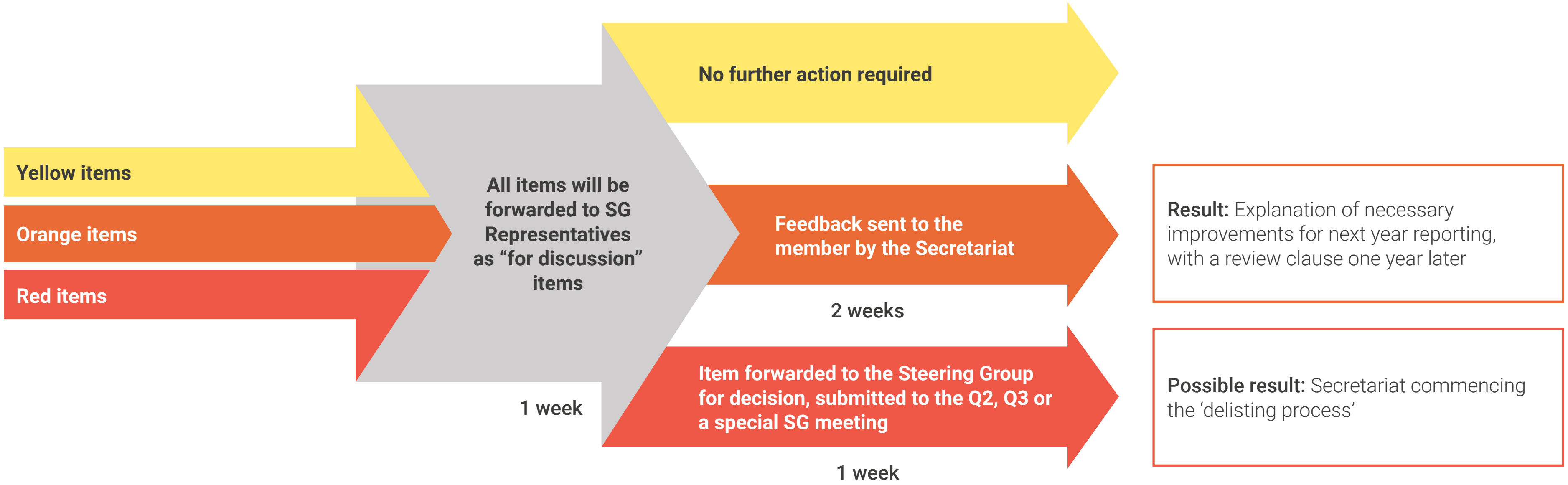
Diagram 3: The Alliance's reporting and target-setting review process after members' submissions



Source: The Alliance's own visualisation

The remediation plans proposed by the member in question will then be assessed by a Review Group, consisting of the MRV Reporting Working Group, MRV Track Co-Leads and two Steering Group Representatives. If the remediation plan is deemed insufficient, a traffic light system (red, orange, yellow) is applied (see diagram 4). The 'red' cases of severe misalignment between the Alliance's Commitment and the member's reporting will be forwarded to the Steering Group for decision—with delisting being a possible outcome.

Diagram 4: The Alliance traffic light system under the accountability mechanism



Source: The Alliance's own visualisation

1.5 Importance of yearly reporting and paper organisation

As mentioned in the previous sections, members of the Alliance are required to publish within 12 months of joining. They are required to completed detailed reporting to the Alliance on progress annually, and disclose annually and publicly on their emissions profile. The aim of this progress report is to:

- Quantitively and qualitatively track transition progress
- Inform the public on the agenda, focus, and actions taken by the Alliance
- Summarise the 2025 intermediary targets set by asset owners in line with the Alliance's Target Setting Protocol

The chapters of the report are organised around the different target types that members report on and around the working tracks whose activities support the delivery of those specific targets. Thus, aside from providing insight into the progress on target setting, the remainder of this report will also detail achievements and challenges of the working tracks, where the bulk of learning and exchange takes place.

The second chapter gives an overview of the target-setting process and provides the aggregate results on the number of Alliance members that have submitted targets and on the frequency of reporting per target type. The third chapter delves deeper into the sub-portfolio and sectoral targets, as well as into the work of the MRV Track. The fourth chapter covers engagement targets and the importance of investment stewardship through an explanation of the work of the Engagement Track. The fifth chapter focuses on actions that the Alliance is taking to build an enabling policy environment for the net-zero transition, recognising that public policy plays an important role in incentivising the flow of capital across the global economy. The sixth chapter is devoted to financing transition targets and to the cutting-edge work of the Financing Transition Track. The last chapter concludes with a brief overview of cross-track efforts and with an outlook for the Alliance as a whole.

2. Target setting and aggregate results

The Alliance aims to drive real-world impact. It does so primarily through engagement with corporates and policymakers as well as by contributing capital required to finance the net-zero transition. To achieve real-world impact, it is crucial that members of the Alliance reflect their climate ambition in their own portfolios in a robust manner. Setting intermediate targets also gives leadership credibility to Alliance members in their engagement with peers in the financial sector.

2.1 Requirements to set targets: the second edition of the Alliance's Target Setting Protocol

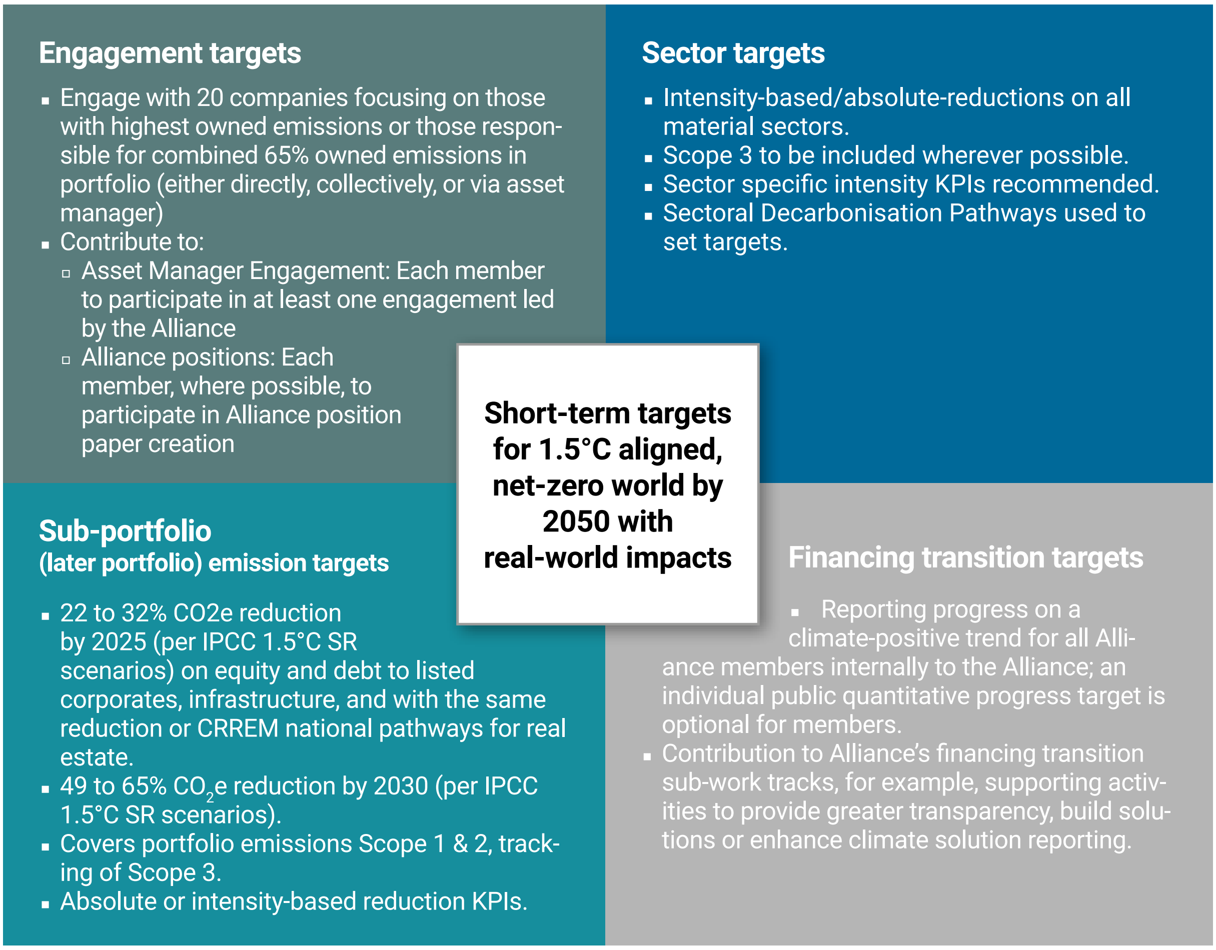
The Alliance's Commitment is operationalised through members' formulation and publication of intermediate targets on a five-year cycle. This reporting schedule is in line with Article 4.9 of the Paris Agreement, which requires parties (governments) to submit updated emissions reduction plans every five years. The Alliance's Target Setting Protocol ('Protocol', hitherto) sets out the Alliance's approach to target setting and reporting. The inaugural Protocol, published in 2021, focused on the period 2020–2025. The second edition, published in January 2022, outlines the ambition towards 2030 and expands the scope of sector and asset class coverage.

In general, the iterations of the Alliance Protocol aim to address two key objectives:

- To maximise the impact of communication with external audiences: The Alliance aims to be transparent and proactive in explaining its role and its views, as well as its approach to addressing key issues and limitations of portfolio decarbonisation beyond the control of its members. The Alliance's open approach to communication also involves learning from, and building upon, external feedback received through public dialogue.
- To provide best practice, so as to guide and support Alliance members in implementing Alliance-wide approaches to achieve the common ambition of net-zero investment portfolios.

The second edition of the Protocol has kept the four-part target-setting structure (see below) and has maintained that setting an engagement target is mandatory for any member of the Alliance. This has the effect of focusing the Alliance's actions firmly on real-world impact. However, what ensures the best possible real-world impact is asset owners' action on all four of these levers.

Figure 2: The Alliance's four-part target-setting approach

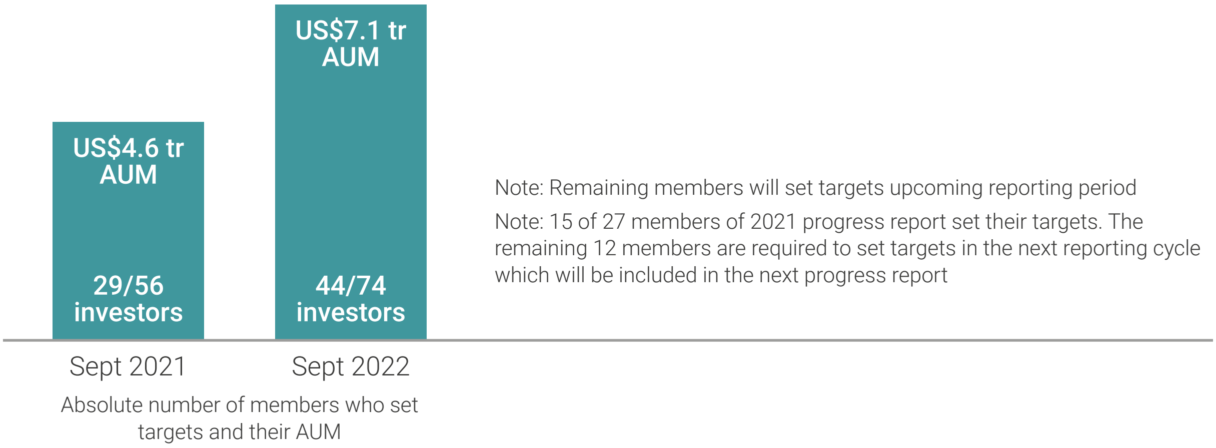


Source: Alliance's own visualisation

2.2 Aggregate targets

Since its launch, 44 Alliance members have filled and submitted detailed reporting templates of their targets to the Secretariat. As of July 2022, 46 members published targets in line with the Protocol. It is important to note that some members have voluntarily supplied detailed target templates ahead of their publication due date, accounting for some of this difference.

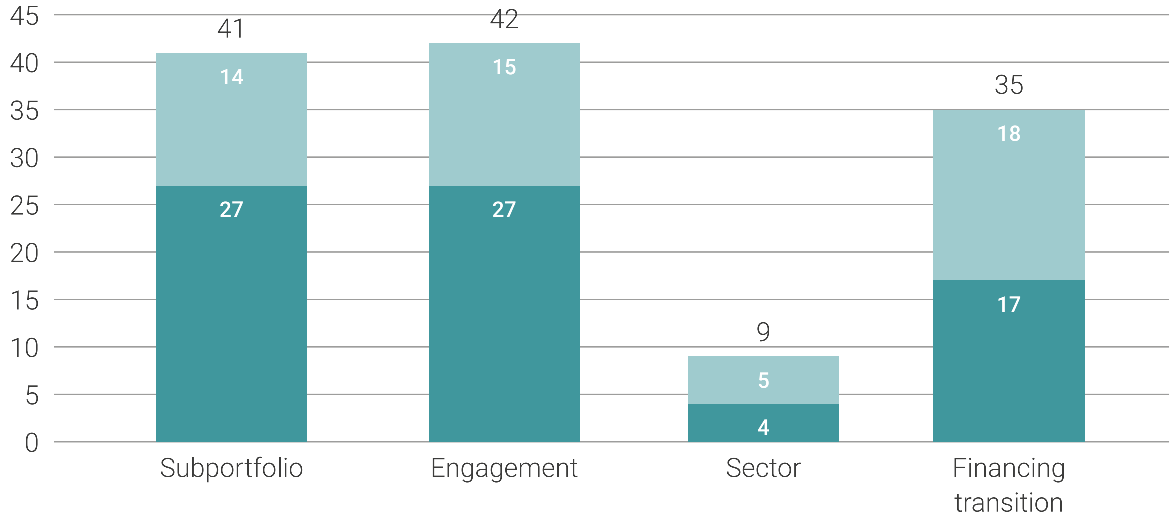
Figure 3: Absolute number of members that set targets and their AUM



Source: Data from Alliance members collected by the Alliance's MRV Track

Alliance members are required to publish targets within 12 months of joining. They are also required to report details of their individual targets to the Alliance Secretariat within 12 months of joining, unless the Alliance reporting period is within three months of their joining (thus, targets should be communicated within maximum 15 months). Reporting is collected annually on an individual basis and made public in an anonymised and aggregated form.

Figure 4: Absolute number of targets set across the four target categories



Source: Data from Alliance members collected by the Alliance's MRV Track

As of June 2022, 43 members were due to report the details of their targets to the Alliance internally and publish their targets in the public domain. Required details were submitted by 44 members. Two members that were not required to set targets this year did so ahead of schedule, while one member withdrew from the Alliance.[2] Members that did not meet mandatory targets (e.g. failed to set engagement targets) have been flagged as 'red' under the Accountability Mechanism (see Diagram 4).

Please see Table 1 for specific member data.

2 CBUS has withdrawn from the Alliance and therefore no targets were submitted for inclusion in this aggregate report.

Table 1: Members' targets overview

#	Member	Country	Type	Target data provided to AOA for aggregation in Progress Report	Link to individual disclosure of intermediary targets
1	Alecta Pensionsforsakring	Sweden	Corp. pension/super/retire/provident	2021	Link
2	Allianz SE	Germany	Insurance company	2021	Link
3	AMF	Sweden	Corp. pension/super/retire/provident	2021	Link
4	Aviva Plc	United Kingdom	Insurance company	2021	Link
5	AXA Group	France	Insurance company	2021	Link
6	Caisse de dépot et placement du Québec (CDPQ)	Canada	Non Corp. pension/super/retire/provident	2021	Link
7	California Public Employees' Retirement System CalPERS	United States	Non Corp. pension/super/retire/provident	2022	Link
8	CDC—Caisse des dépôts et consigna-tions	France	Sovereign Wealth Fund or government control fund	2021	Link
9	CNP Assurances	France	Insurance company	2021	Link
10	Folksam	Sweden	Insurance company	2021	Link
11	Fonds de réserve pour les retraites—FRR	France	Sovereign Wealth Fund or government control fund	2021	Link
12	Nordea Life & Pensions	Sweden	Insurance company	2021	Link
13	PensionDanmark	Denmark	Non Corp. pension/super/retire/provident	2021	Link
14	Storebrand ASA	Norway	Insurance company	2021	Link
15	Swiss Re Ltd	Switzerland	Insurance company	2021	Link
16	Zurich Insurance Group	Switzerland	Insurance company	2021	Link
17	Danica Pension	Denmark	Non Corp. pension/super/retire/provident	2021	Link

#	Member	Country	Type	Target data provided to AOA for aggregation in Progress Report	Link to individual disclosure of intermediary targets
18	Church Commissioners for England	United Kingdom	Endowment/Corp. pension/super/retire/provident	2021	Link
19	Church of England Pensions Board	United Kingdom	Endowment/Corp. pension/super/retire/provident	2021	Link
20	Generali Group	Italy	Insurance company	2021	Link
21	Munich Re	Germany	Insurance company	2021	Link
22	David Rockefeller Fund	United States		2021	Link
23	Wespath Benefits and Investments	United States	Non Corp. pension/super/retire/provident	2021	Link
24	AkademikerPension	Denmark	Corp. pension/super/retire/provident	2021	Link
25	P+	Denmark	Non Corp. pension/super/retire/provident	2022	Link
26	ERAFP—Etablissement de Retraite Additionnelle de la Fonction Publique Pension Scheme	France	Non Corp. pension/super/retire/provident	2021	Link
27	PFA Pension	Denmark	Corp. pension/super/retire/provident	2021	Link
28	SCOR SE	France	Insurance company	2021	Link
29	QBE Insurance Group Limited	Australia	Insurance company	2022	Link
30	St. James's Place Group	United Kingdom	Insurance company	2022	Link
31	BT Pension Scheme	United Kingdom	Corp. pension/super/retire/provident	2022	Link
32	KENFO	Germany	Sovereign Wealth Fund or government control fund	2021	Link
33	United Nations Joint Staff Pension Fund	United States	Non Corp. pension/super/retire/provident	2021	Link
34	PKA	Denmark	Non Corp. pension/super/retire/provident	2022	Link

#	Member	Country	Type	Target data provided to AOA for aggregation in Progress Report	Link to individual disclosure of intermediary targets
35	Société Générale Assurances	France	Insurance company	2022	Link
36	Unilever Pension Funds (Univest Company)	Netherlands	Corp. pension/super/retire/provident	2022	Link
37	The Dai-ichi Life Insurance Company, Limited	Japan	Insurance company	2021	Link
38	Bayerische Versorgungskammer	Germany	Insurance company	2022	Link
39	Legal & General	United Kingdom	Insurance company	2022	Link
40	Phoenix Group	United Kingdom	Insurance company	2022	Link
41	Prudential plc	Hong Kong	Insurance company	2022	Link
42	Rothesay	United Kingdom	Insurance company	2022	Link
43	The Co-operators Group	Canada	Insurance company	Due 2023	Link
44	HanseMerkur	Germany	Insurance company	Due 2023	Link
45	Lægernes Pensionskasse	Denmark	Non Corp. pension/super/retire/provident	Due 2023	Link
46	Pension Insurance Corporation	United Kingdom	Insurance company	Due 2023	Link
47	BNP Paribas Cardif	France	Insurance company	2022	Due Sept 22
48	M&G (Prudential Assurance Company)	United Kingdom	Insurance company	Due 2023	Due Sept 22
49	African Risk Capacity Insurance Company Limited	Bermuda	Insurance company	Due 2023	Due Sept 22
50	Meiji Yasuda Life Insurance Company	Japan	Insurance company	Due 2023	Due Oct 22
51	Nippon Life Insurance Company	Japan	Insurance company	Due 2023	Due Oct 22
52	Pensioenfonds Detailhandel	Netherlands	Non Corp. pension/super/retire/provident	Due 2023	Due Oct 22

#	Member	Country	Type	Target data provided to AOA for aggregation in Progress Report	Link to individual disclosure of intermediary targets
53	Sumitomo Life Insurance Company	Japan	Insurance company	Due 2023	Due Oct 22
54	SV SparkassenVersicherung	Germany	Insurance company	Due 2023	Due Oct 22
55	UNIQA Insurance Group AG	Austria	Insurance company	Due 2023	Due Oct 22
56	MAIF	France	Insurance company	Due 2023	Due Oct 22
57	Stichting pensioenfonds IBM Nederland	Netherlands	Corp. pension/super/retire/provident	Due 2023	Due Oct 22
58	Crédit Agricole Assurances	France	Insurance company	Due 2023	Due Oct 22
59	University of Toronto Asset Management Corporation (re University of Toronto Endowment)	Canada	Corp. pension/super/retire/provident	Due 2023	Due Oct 22
60	Aegon N.V.	Netherlands	Insurance company	2022	Due Nov 22
61	HUK-COBURG Versicherungsgruppe	Germany	Insurance company	Due 2023	Due Dec 22
62	Stichting Pensioenfonds Medisch Specialisten	Netherlands	Non Corp. pension/super/retire/provident	Due 2023	Due Dec 22
63	Gothaer Group	Germany	Insurance company	Due 2023	Due Dec 22
64	LVM Landwirtschaftlicher Versi-cherungsverein Münster a.G	Germany	Insurance company	Due 2023	Due Dec 22
65	Intesa Sanpaolo Vita S.p.A.	Italy	Insurance company	Due 2023	Due Dec 22
66	Sammelstiftung Vita	Switzerland	Insurance company	Due 2023	Due 2023
67	Novartis Pension Fund	Switzerland	Corp. pension/super/retire/provident	Due 2023	Due 2023
68	VidaCaixa	Spain	Insurance company	Due 2023	Due 2023
69	Sparkassen-Versicherung Sachsen	Germany	Insurance company	Due 2023	Due 2023
70	Old Mutual	South Africa	Insurance company	Due 2023	Due 2023

#	Member	Country	Type	Target data provided to AOA for aggregation in Progress Report	Link to individual disclosure of intermediary targets
71	Unipol Gruppo S.p.A - UnipolSai Assicurazioni	Italy	Insurance company	Due 2023	Due 2023
72	SOMPO Holdings	Japan	Insurance company	Due 2023	Due 2023
73	FSRG represented by FGIS	Gabon	Sovereign Wealth Fund or government control fund	Due 2023	Due 2023

Source: Data from Alliance members collected by the Alliance's MRV Track

The ratio between AUM and asset classes or sectors covered by a target may vary between asset owners due to, *inter alia*:

- Percentage of AUM allocated to asset classes not already covered by the Protocol (e.g. sovereign bonds and private equities)
- Percentage of AUM allocated to sectors not already covered by the Protocol (e.g. banks)
- The choice of each asset owner not to set sub-portfolio targets or sector targets, or not to report climate solution investments
- Availability of emissions data

For further information, all public announcements on members' targets are available on the Alliance's website.[3] The data are updated regularly.

2.3 Case study: CalPERS—setting a well-rounded 'target package'

California Public Employees' Retirement System (CalPERS) joined the Alliance in 2019, committing to accelerating decarbonisation in line with limiting global warming to 1.5°C by 2050. The manager of the largest public pension fund in the United States of America adopted a strategy which emphasises a holistic sustainable investment approach, incorporating climate change risks and opportunities, and a focus on reducing greenhouse gas emissions in the real economy.

CalPERS seeks to reach real economy decarbonisation in line with 1.5°C, primarily through:

- Engagement with companies
- Advocacy with regulators and policymakers
- Investment in climate solutions, to finance the transition to a low-carbon economy

As a member of the Alliance, CalPERS developed sector-based targets to assess the progress of the economy and the actions that companies and investors are taking. These targets use Transition Pathway Initiative's (TPI) sectoral decarbonisation pathways, which are IEA scenarios. These are widely used by investors and investor networks, including Climate Action 100+, to assess whether companies are aligned with the goals of the Paris Agreement. Specifically, the goal of keeping global temperature rise below 1.5°C. This analysis informs CalPERS' investment decisions and underpins their engagement with companies across the range of high impact sectors.

3 Intermediate targets that members published are found on the following page: unepfi.org/net-zero-alliance/resources/member-targets/

CalPERS committed to assessing sectoral decarbonisation pathways and targeting intensity and absolute real-world emission reductions through engagement to bring sectors and individual companies in alignment to a 1.5°C pathway.

Carbon intensity targets for 2025 and 2030 for each sector are shown in the table below, which includes the sectoral carbon performance measure for each of the high emitting sectors. Sector and company pathways and sector statuses are publicly available via the TPI online tool.[4]

Table 2: CalPERS' Sector Carbon Intensity Targets for 2025 and 2030

Cluster	Sector	2025 target	2030 target	Sectoral Carbon performance measure
Energy	Electricity utilities	0.288	0.138	Carbon intensity of electricity generation (metric tonnes of CO_2 per MWh)
	Oil and gas	51.52	40.95	Carbon intensity of primary energy supply (gCO_2e/Mj)
Transport	Automobiles	68	40	New vehicle carbon emissions per kilometre (grams of CO_2 per kilometre)
	Airlines	1071	616	Carbon emission per revenue tonne kilome-tre (gCO_2/RTK)
	Shipping	5.63	4.31	Carbon emissions per tonne kilometre (gCO_2t/t-km)
Industrials & materials	Cement	0.43	0.373	Carbon intensity of cementitious product (tonnes of CO_2 per tonne of cementitious product
	Diversified mining	49.79	41.54	Carbon emissions per tonne of copper equivalent (tonne CO_2e/tonne of steel)
	Steel	1.046	0.815	Carbon intensity of crude steel production (tonnes of CO_2 per tonne of steel)
	Aluminium	4.004	3.069	Carbon intensity of aluminium production (tCO_2e/t aluminium)
	Pulp and paper	0.427	0.353	Carbon intensity of pulp, paper, and paper-board production (tonnes of CO_2 per tonnes of product)

Source: CalPERS n.d.

4 The TPI online tool can be accessed here: transitionpathwayinitiative.org/sectors

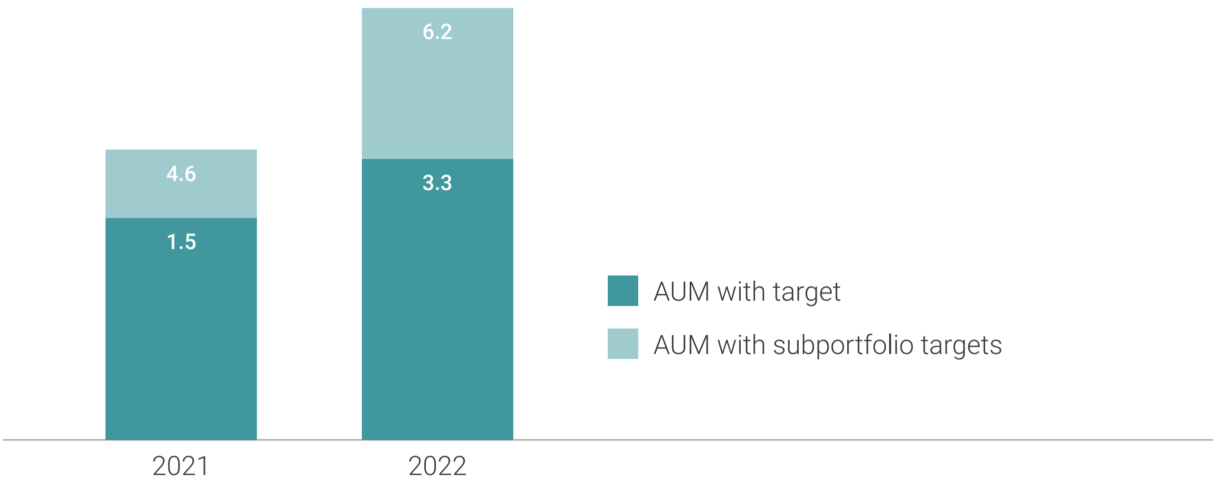
3. Progress on sub-portfolio and sector targets

3.1 Key findings: targets/progress

As the Alliance grows and more members reach their 12-month deadline for issuing targets, the AUM that are under the concrete 1.5°C-target-framework also increase.

In 2021, 29 Alliance members set their intermediate targets (across all four types). All but one of these members issued sub-portfolio targets, accounting for US$4.6 trillion in AUM. Due to data coverage, the sub-portfolio targets applied to a total of US$1.5 trillion in AUM. In 2022, the number of members setting targets increased to 44 with US$7.1 trillion in AUM and the group that set sub-portfolio targets rose to 41, accounting for US$6.2 trillion in AUM. The sub-portfolio targets in 2022 apply to US$3.3 trillion in AUM, more than doubling the total from 2021.

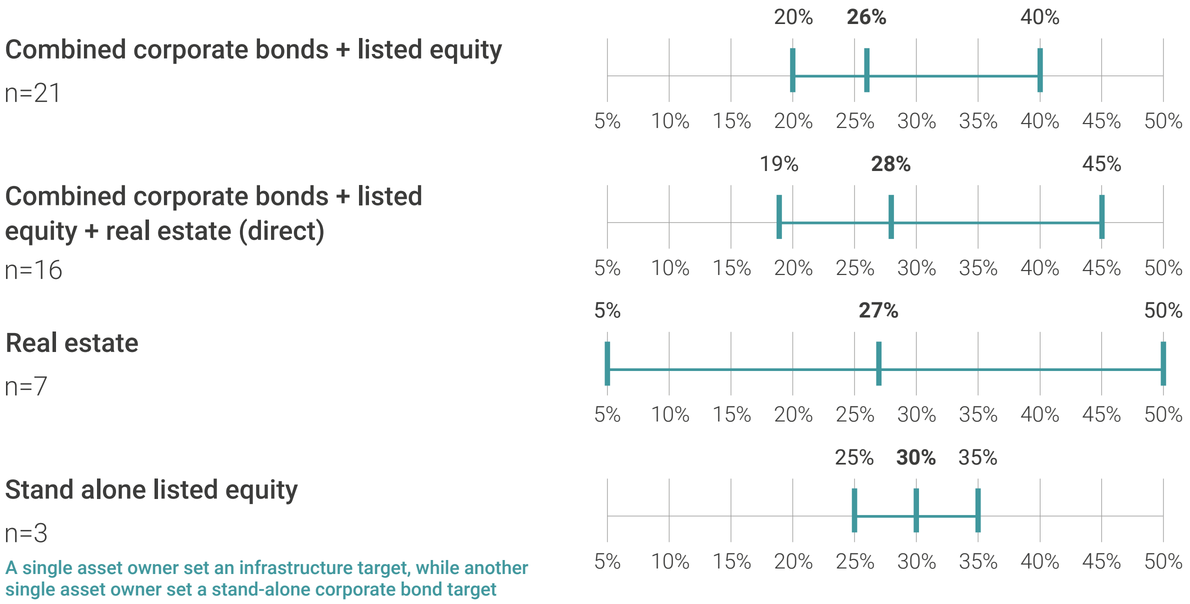
Figure 5: AUM of asset owners setting subportfolio targets and AUM covered by a subportfolio target



Source: Data from Alliance members collected by the Alliance's MRV Track

3.2 Qualitative interpretation of sub-portfolio and sector targets for 2025

Figure 6: Ambition of sub-portfolio targets for corporate bonds, listed equity and real estate



All base years have been normalised to 2019 for aggregation purposes.

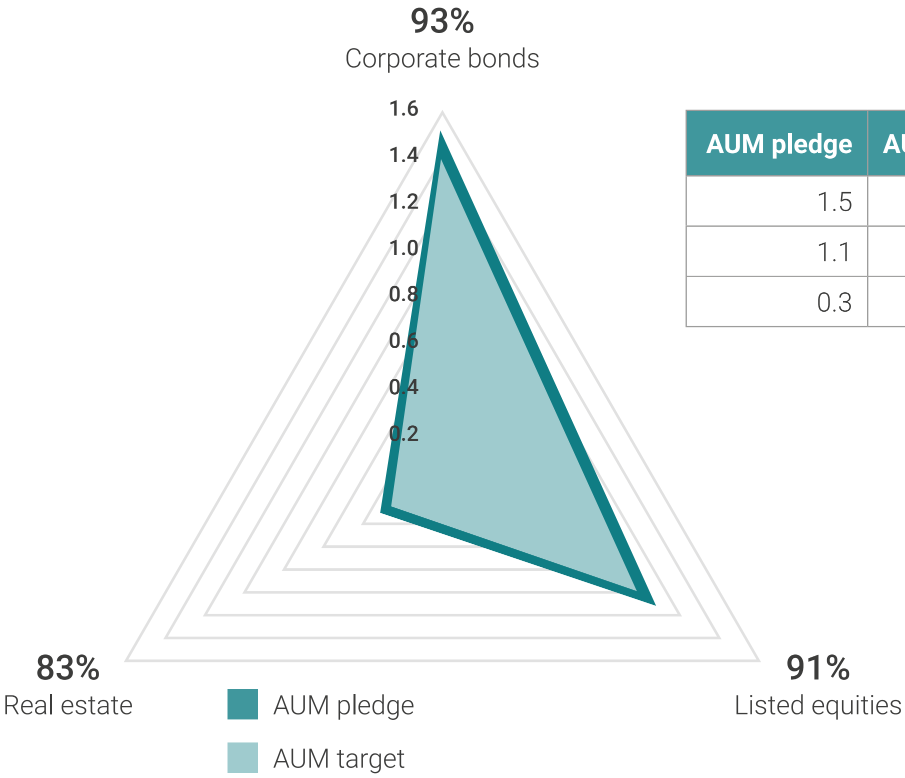
Where asset owners did not set a target on the asset class they either do not have exposure to this asset class, or were flagged under the Alliance compliance mechanism to provide explanation and data in accordance with compliance mechanism

Real estate is heavily influenced by location, all members are expected to align with 1.5C pathways. For some this may require a 50% reduction, and others only 5%.

Source: Data from Alliance members collected by the Alliance's MRV Track

The type of sub-portfolio target adopted by a member of the Alliance can either be an absolute target or an intensity-based target. The Protocol elaborates the benefits and drawbacks of both types. The split between absolute and intensity-based targets is approximately 20 per cent and 80 per cent respectively. At present, eight members of the Alliance have set absolute sub-portfolio emissions targets for 2025.

Figure 7: AUM covered by the pledge and by the sub-portfolio target (disaggregated by asset class)



AUM pledge	AUM target	Percentage
1.5	1.4	93%
1.1	1.0	91%
0.3	0.25	83%

Source: Data from Alliance members collected by the Alliance's MRV Track

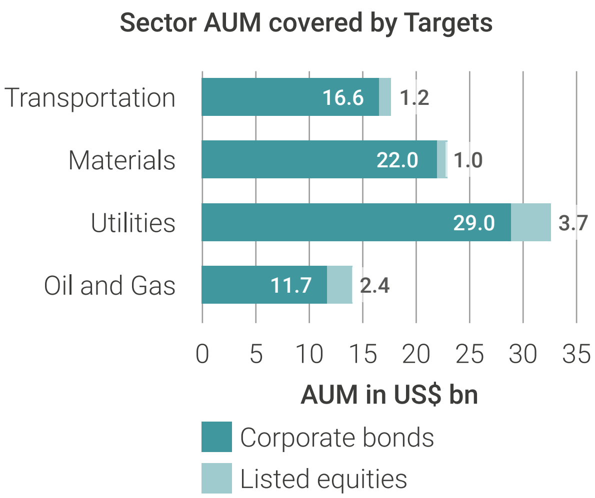
Alliance members should set targets on 100 per cent of AUM where asset class methodologies exist and where data is available. Figure 7 demonstrates this coverage. Listed equities enjoy nearly full coverage,[5] while direct real estate assets have experienced challenges with data availability and constraints relating to minority ownership.

Sector targets

Sector targets allow members to 'track' the global economy transition within a sector, and thus elucidate the decarbonisation gains that can be achieved through capital reallocation within a sector, rather than between sectors. Through sector targets, members can verify that the assets they hold in a given sector are beginning to align with what climate science requires of that sector. Sector approaches also support the provision of capital to best performing (i.e. most carbon efficient) companies in a given sector. This ensures that carbon emission reductions in a portfolio are not the result of transitioning to lower-emitting sectors (as described above). Instead, it guarantees that carbon emissions are decreasing across high- and low-emitting sectors, in line with what the science says is required. To date, nine members have set sector targets for 2025. Sectoral coverage is split between asset classes as depicted below. Transportation targets cover Aviation, Shipping, and Heavy Duty and Light Duty Road, while Materials is made up of Cement and Steel.

5 Across the Alliance aggregation, however, it should be noted that some gap areas may persist for members. This is especially true, for example, for those that are invested in emerging economies.

Figure 8: AUM covered by sector targets disaggregated by corporate bonds and listed equities



Metrics used to set targets	
Combined Oil and Gas	Operational carbon intensity (Scope 1 & 2); mio. tCO_2e/PJ
Utilities	tCO_2e/MWh
Cement	tCO_2/ton of Cement
Steel	tCO_2/ton of Steel
Aviation	g CO_2/pkm or g CO2/RTK
Heavy duty road	g CO_2/pkm
Light duty road	g CO_2/pkm
Shipping	g CO_2/tkm

Source: Data from Alliance members collected by the Alliance's MRV Track

Sectoral pathways to net-zero guide sector-based target setting. Models providing these granular pathways include the One Earth Climate Model (OECM), and the International Energy Agency's (IEA) Net Zero Emissions by 2050 analysis, among others.[6] Given the relatively limited availability of sector-specific scenarios (as compared to the many IPCC scenarios now available), asset owners are encouraged to use those scenarios that best suit their particular sectoral and geographic balance. These may include national or regional pathways for a given sector. The resulting reduction targets are provided below. It is useful to note that the decarbonisation of utilities is important for the transition of other sectors, such as electric mobility.

Box 2: Expansion of the One Earth Climate Model

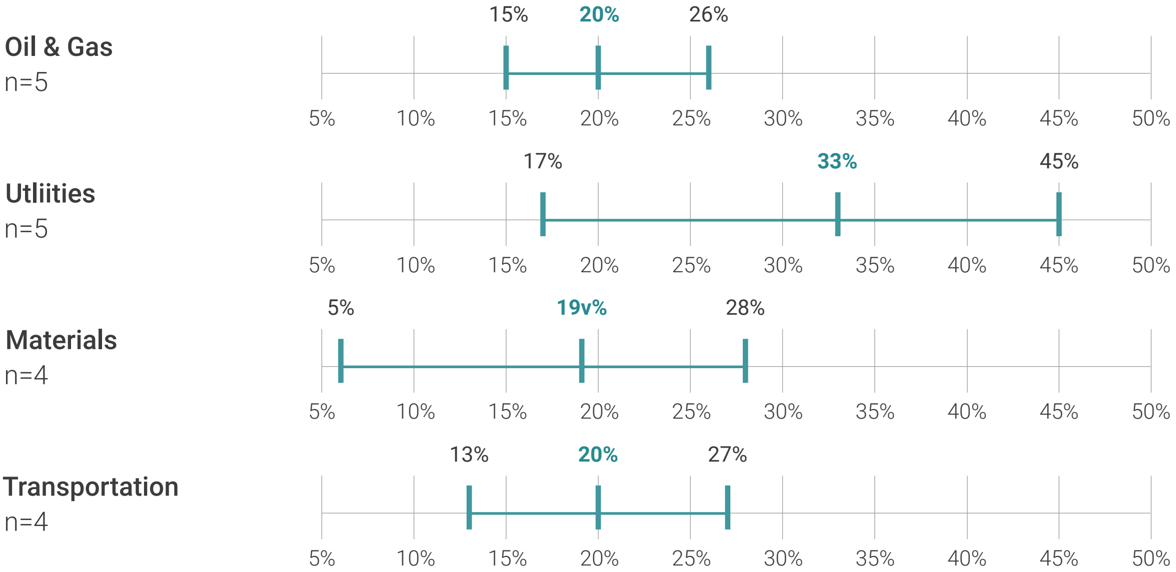
In 2020, following a period of consultations with PIK, LSE, RMI, TPI, and other climate science experts, the Alliance commissioned the OECM, together with the European Climate Foundation (ECF). The model was developed by the Institute for Sustainable Futures (within UTS) and is used by asset owners and asset managers for investment portfolio sector target setting, steering, and benchmarking. The OECM has been included in the GFANZ Guidance on use of Sectoral Pathways for Financial Institutions (GFANZ 2022).

6 Models providing granular sectoral pathways: OECM: unepfi.org/publications/one-earth-climate-model-sectoral-pathways-to-net-zero-emissions/; IEA NZ2050: iea.org/reports/net-zero-by-2050

In 2022, the model was further developed, to include the calculation of the remaining carbon budgets (in line with the 1.5° C scenarios) for 12 key industry sectors. Carbon budgets are subdivided into scope 1, 2, and 3 emissions, which allows for precise delineation of industry responsibility. The research constructs the sector pathways in line with the three financial industry classifications (BICS, GICS, and NACE) on a five-year basis for OECD Europe, OECD North America, and the world.[7] The findings show that it is still possible to limit global warming to 1.5° C; however, timely action is needed from all stakeholders.

Additional information can be found in the open-access book, Achieving the Paris Climate Agreement Goals Part 2 (Teske 2022). The regions and countries covered will be further expanded in 2023.

Figurve 9: Sector reduction targets: minimum, maximum, and average[8]



Source: The Alliance's members' data collected by the Alliance's MRV Track

7 Further OECM research outputs can be found here: uts.edu.au/isf/news/how-limit-global-warming-1.5degc-guidance-sectors

8 Materials sector includes steel and cement.

3.3 How do sub-portfolio and sector targets for 2025 contribute to the theory of change and complement each other?

Once all asset classes have appropriate methodologies for target setting, the sub-portfolio target will become a 'portfolio-wide' target (comprised of the totality of underlying asset classes). Presently, listed equity, corporate bonds, direct real estate assets, and infrastructure are covered by the existing Protocol. These asset classes make up a large portion of investments for most asset owners. However, asset classes such as sovereign debt remain to be integrated into the Protocol. While it is challenging to develop target-setting methodologies for financed emissions from sovereign bonds, the Alliance has already taken first steps to include sovereign debt accounting in the second version of the Protocol. This can appear either in absolute or intensity terms. The acceptable range for a sub-portfolio target for years 2020–2025 is a reduction of between 22 per cent and 32 per cent. This corresponds to the no or limited overshoot global pathways provided by the IPCC.

Sector targets help to compare like-for-like. In this way, a highly carbonised investment, such as investment in oil and gas or steel companies, can be compared to similar investments. Sector targets help to overweight high-performing companies (e.g. net-zero steel companies relative to peers) and underweight poor performers (i.e. those companies that are not transitioning). Sector targets provide a sense of the decarbonisation of an asset owner's holdings in a given sector, rather than any decarbonisation it might be achieving by 'switching' between sectors (e.g. divesting from materials and investing in technology holdings). This approach helps to ensure that an asset owner is working to finance the transition to a net-zero economy. In other words, an asset owner is able to provide capital to the companies that are the decarbonisation leaders in their sector, thereby incentivising a transition to sustainable business models within both the wider sector and the value chain. The encouraged metric centres on productivity-based intensity in that it seeks to evidence how many emissions are reduced for each unit (such as a car or a ton of steel) that is produced.

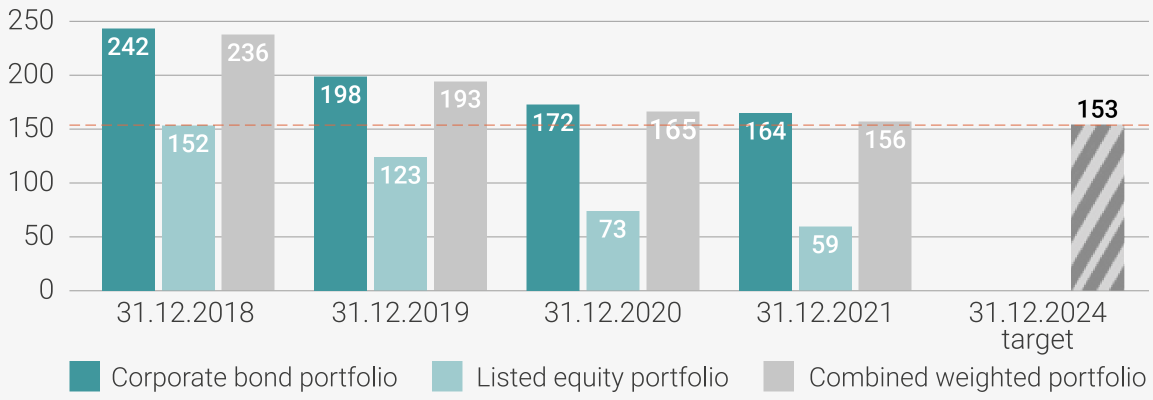
3.4 Sub-portfolio targets 'a concrete commitment towards carbon reduction': Swiss Re's case

As climate change is a global challenge, Swiss Re believes that engagement with the real economy is an integral part of its contribution to limiting global warming to 1.5°C. In alignment with its commitment made as a founding member of the Alliance, the global reinsurance firm published its 2025 climate targets in the domains of Financing the Transition, Engagement, and Sub-portfolio in March 2021.

The sub-portfolio targets provide concrete carbon reduction targets. For 2025, the company has set a carbon intensity reduction target of -35 per cent for scope 1 and 2 emissions for its listed equities and corporate bond portfolio with the base year 2018, in line with science and the Alliance's Protocol. This provides the measures to work with the investee companies towards emissions reductions in the spirit of real-world change. Based on the reduction parameters, Swiss Re could identify where it needs to land with its portfolio carbon intensities in 2025. Swiss Re is therefore able to identify which investments currently exceed the set target and with whom engagement needs to be done first.

Swiss Re developed its own Engagement framework for its active listed equities portfolio. This is structured around two themes; 'Alignment of Business Model with 1.5°C Target', and 'Improving Transparency: Disclosure of ESG Key Metrics'. Under the first theme, Swiss Re aims to encourage companies to develop their own climate strategy and to define how they can manage climate-related risks. It also seeks to motivate companies to prepare for their transition to a low-carbon economy. Swiss Re works closely with its external equity managers to implement the engagement topics. It does so by sharing a detailed description of the topics in question, explaining the aspiration behind them, and providing information about the recommended frameworks and metrics for their achievement. Lastly, Swiss Re has set specific targets on engagement frequency to monitor companies' progress in a structured way.

Figure 10: Swiss Re—carbon intensity of the corporate bond & listed equity portfolios



Source: Swiss Re 2021, p.183

3.5 Case study: Danica Pensions on setting sector targets

Danica Pension is one of the largest commercial pension funds in Denmark. It joined the Alliance in 2020 and simultaneously committed to becoming carbon neutral by 2050.

Danica was one of the first Alliance members to set intensity-based sector decarbonisation targets. It chose to focus on sector targets because it believes that when the industry dynamics of the entire energy system are considered, the sectoral approach forms the most credible and feasible basis for driving positive outcomes in the real economy. Furthermore, Danica sees sector targets as naturally coupled with engagement targets—which form the foundation of the Alliance's target-setting approach. While sector targets may be seen as more complicated to understand and manage, Danica has found them easier to translate into an investment strategy, where sectoral tilts might emerge for reasons other than climate.

For sectoral target setting, Danica leverages the OECM and the TPI (which relies on scenarios from the International Energy Agency). Its targets cover priority sectors set by the Alliance, including energy, utilities, materials, and transport. Danica also set a target on cement as this sector has emissions that are material to its portfolio. Danica aims to reduce carbon dioxide emissions from these sectors by 15 to 35 per cent by 2025, compared to 2019 levels.

Since setting its sectoral target at the beginning of 2021, Danica has been conducting quarterly reviews to track portfolio decarbonisation progress in each sector. In the reviews, Danica identifies top emitters that contribute to over 80 per cent of combined owned emissions in their respective sector and analyses the alignment between these companies' emissions and their short-, medium-, and long-term targets. Moreover, Danica has bilateral engagement dialogues with the top emitters, in addition to engaging with them through investor groups such as Climate Action 100+. Danica also actively considers its net-zero commitment in proxy voting.

In addition to decarbonisation targets, Danica aims to increase investments in green transition to 50 billion Danish krone (US$6.8 billion) in 2023 and 100 billion Danish krone (US$13.7 billion) by 2030. Danica publishes an annual report in line with the recommendation of the Task Force on Climate-Related Financial Disclosures. Further, it discloses details of its Scope 1, 2, and 3 emissions as well as a summary of its progress towards the low-carbon transition.

3.6 Outlook: Future work of the MRV Track

The Alliance's MRV workplan foresees an inclusion of additional asset classes annually. In this way, it can ensure greater coverage of members' portfolios and can best support its members in their transition activities. For example, when the inaugural Protocol was revised, infrastructure was added as an asset class to the updated version. In 2022, the MRV Track has focused on sovereign debt, private equity, real estate funds and (commercial) mortgages.

When first introducing the target-setting methodology for a new asset class, the MRV Track generally applies the following approach:

Step 1: Acquire GHG transparency and meaningful reporting of the underlying assets

Transparency is always the first step towards steering and managing GHG emissions as well as investing in the necessary transition at the right speed.

With the (upcoming) release of a GHG accounting methodology for sovereign bonds by the Partnership for Carbon Accounting Financials (PCAF) in 2022, this very significant asset class can be considered for carbon transparency and target setting. Next steps will be to expand the PCAF sovereign methodology towards sub-sovereigns and supra-nationals.

With the (upcoming) 'Call to Action for General Partners', the Alliance lists meaningful actions that can be taken in the private asset space to overcome the key challenge of data availability. It affirms that general partners have a unique responsibility to start immediately working towards full carbon transparency in this space. The Alliance also capitalises on policy opportunities presented by regulators to close existing data gaps. Such opportunities include the recent draft decisions on climate-related financial data disclosure by the United States Securities and Exchange Commission (SEC)[9] and the International Sustainability Standards Board (ISSB).[10]

The Alliance works with partners on defining methodologies for all significant asset classes. Those remaining to be covered in future years include fixed income securities (such as covered bonds), asset and mortgage-backed securities, and collateralised loan obligations, among others.

Lastly, transparency should not be seen as a binary topic. As most emissions are concentrated in a small number of specific high-emitting sectors, a materiality-based approach often ensures coverage of most significant portfolio emissions. As such, it is the Alliance's view that such an approach represents a good starting point for portfolio transparency.

9 The United States Securities and Exchange Commission's proposal on The Enhancement and Standardization of Climate-Related Disclosures for Investors: sec.gov/rules/proposed/2022/33-11042.pdf.

10 The International Sustainability Standards Board's Exposure Draft IFRS S2 Climate-related Disclosures: ifrs.org/content/dam/ifrs/project/climate-related-disclosures/issb-exposure-draft-2022-2-climate-related-disclosures.pdf.

Step 2: Target setting

Asset classes that provide sufficient transparency can be taken to the next stage—namely, target setting. This process requires two steps:

- 2A: Choosing the target-setting methodology
- 2B: Determining the target-setting ambition level

In most cases for a given asset class, there may be several different options for establishing a target-setting methodology. The MRV Track reviews and discusses the available methodologies, data coverage, and other factors. Based on this information, it then recommends through the Protocol those target-setting methodologies, which have both high applicability (for practitioners) and potential for real economy impact.

For sovereigns, the Alliance contributes to the development of a forward-looking, 1.5°C-aligned assessment methodology in the Assessing Sovereign Climate-related Opportunities and Risks (ASCOR) project.[11] The output will be open and accessible to all investors. Further, it will serve as the underlying methodology for the Alliance's target-setting approach for sovereign bonds in 2023. Based on the ASCOR methodology, the MRV Track will determine the appropriate ambition level, balancing the Alliance's Commitment and the unique role that sovereign bonds play in portfolio construction for many Alliance members. Sub-sovereign and supra-nationals will follow thereafter.

The MRV track will aim to describe the approach for target setting in private equity, real estate funds, and commercial mortgages in the third edition of the Protocol, scheduled for publication in January 2023.

The MRV Track will continue to contribute to other workstreams that support target setting in a broader sense, with a particular focus on transparency initiatives. For example, the Alliance is currently collaborating with the London Stock Exchange Group on the decarbonisation track record of our investment universe disaggregated by sector and region. Meanwhile, through its work with OS Climate[12] and GFANZ on the implied temperature rise, the Alliance is contributing to the standardisation of analytical tools and the convergence of methodological choices.

11 ASCOR is a joint project between the Alliance, PRI, BT Pension Scheme, Church of England Pensions Board, the Alliance, the Coalition for Environmentally Responsible Economies, the Institutional Investors Group on Climate Change, and the TPI. It is supported by Chronos Sustainability. See: unpri.org/news-and-events/the-ascor-project-assessing-sovereign-climate-related-opportunities-and-risks/7681.article

12 OS-C is establishing an open-source collaboration community to build a data and software platform that will dramatically boost global capital flows into climate change mitigation and resilience. The Alliance is among its supporters. More information is available on its website: os-climate.org/

4. Progress on engagement

4.1 Key findings

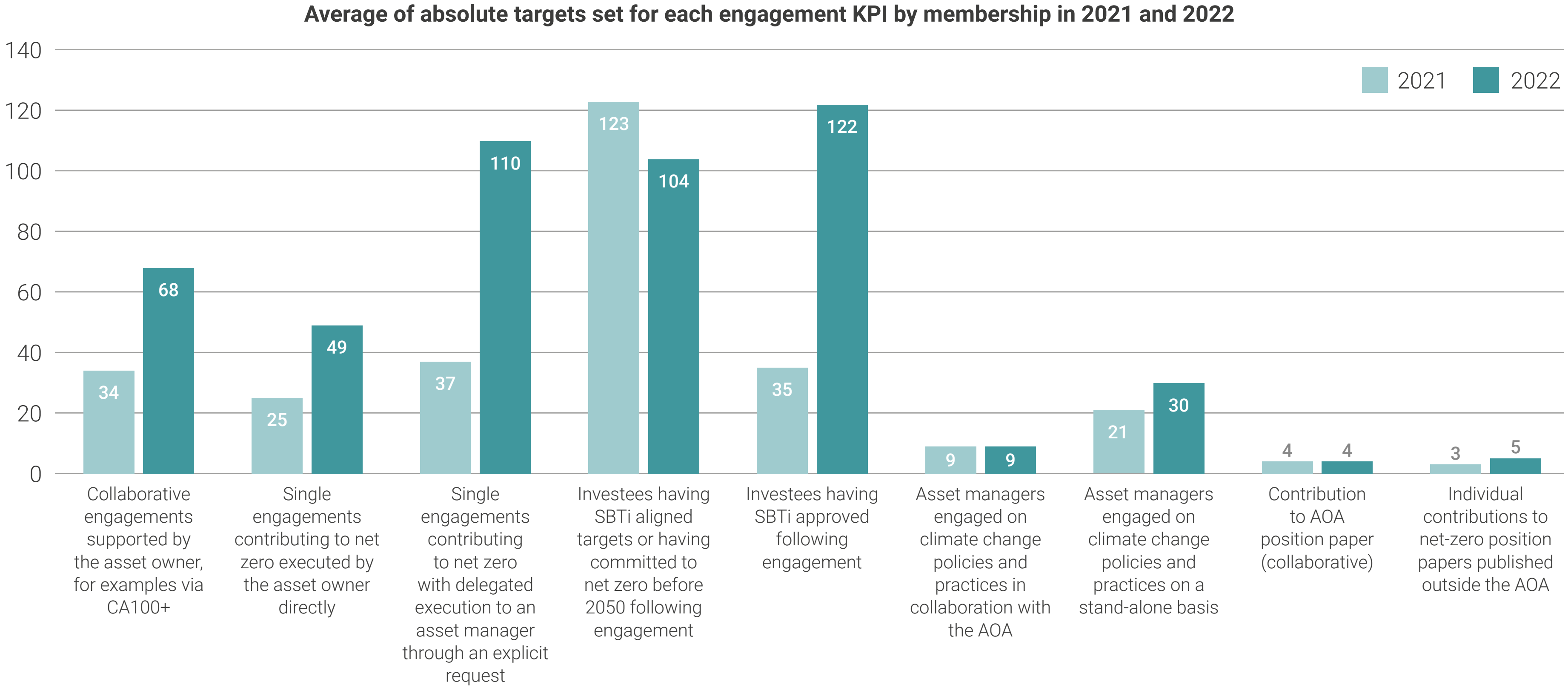
Setting engagement targets is mandatory for all Alliance members. This is because the Alliance is focused on supporting the net-zero transition in the real economy, and the portfolios of its members reflect the real economy. As outlined in the second edition of the Alliance's Protocol, real-world impact is delivered in large part by engaging companies, sectors, policymakers, and asset managers to encourage each group to set and implement their own net-zero targets. Engagement is the primary tool for this effort, while divestment triggers are considered as a last resort. The Alliance believes divestment will not achieve its objectives of protecting asset owners' core businesses or broader society from the worst effects of climate change and does not contribute to the wider transformation needed to limit global warming to 1.5°C. Therefore, using engagement levers in all asset classes is required. Additionally, in considering the needs of the broader society, it is recommended that Alliance members adopt approaches that secure the rights of marginalised and high-impacted populations as well as respond to the uneven burden of climate change on women—both of which represent key ingredients towards achieving environmental sustainability.

4.2 Qualitative interpretation of the results

The following figure shows that nearly all key performance indicators (KPIs) for engagement—representing an average of absolute member targets type—have increased from 2021 to 2022. This indicates a growing investor support for collaborative and bilateral corporate engagement, for more direct delegation to asset managers for engagement, and for increased engagement of asset managers.

It is also notable that only one KPI saw a decrease, pointing to the fact that this year members have set lower targets on aggregate regarding the outcomes of engagement and company's subsequent actions, such as developing targets aligned with the Science-Based Targets initiative (SBTi) aligned. This is somewhat expected given that the number of portfolio companies now covered by targets doubled from last year.

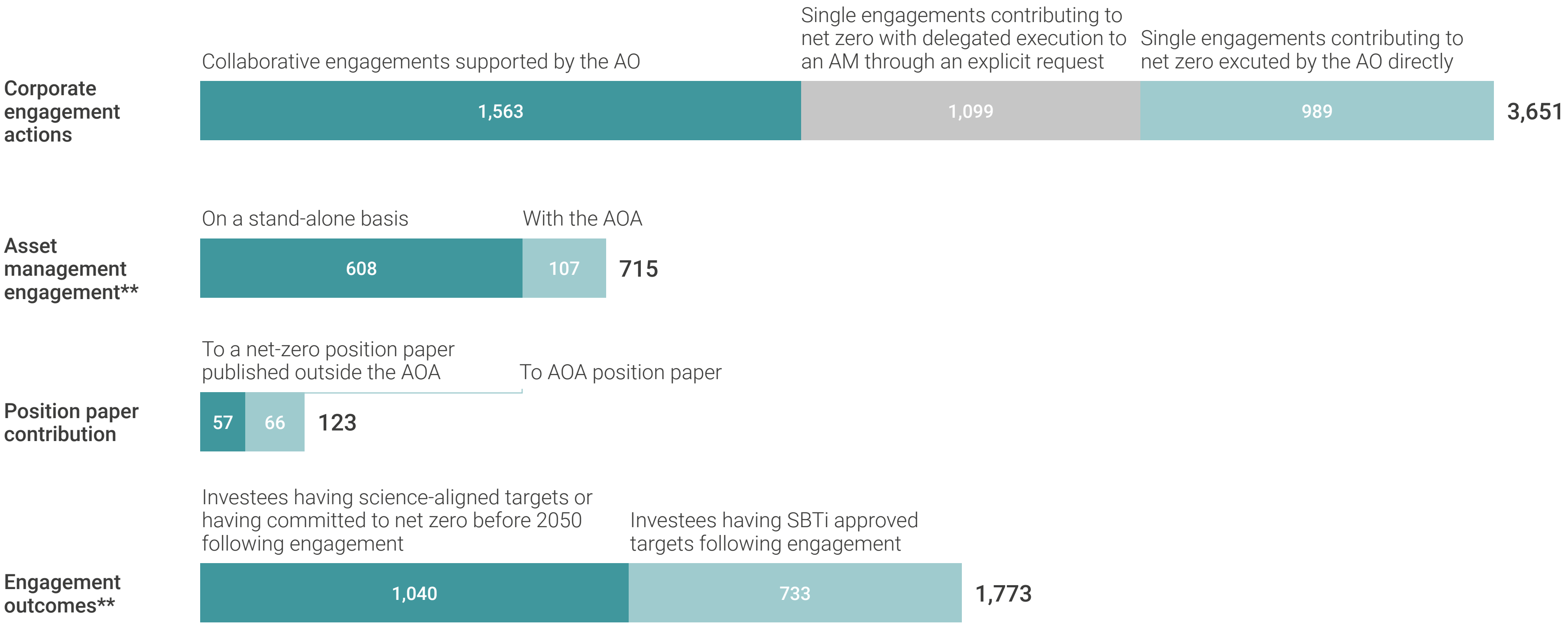
Figure 11: Engagement KPIs in 2021 and 2022



Source: Data from Alliance members collected by the Alliance's MRV Track

Within engagement targets, there are four broader categories: corporate engagement, asset manager engagement, contributions to position papers developed within and outside the Alliance, and engagement outcomes. The following figure depicts the absolute number of targets by category.

Figure 12: Absolute number of targets for each engagement category by 2025



Source: Data from Alliance members collected by the Alliance's MRV Track

Asset owners have a unique position in the financial system. They can engage portfolio companies to set strategies aligned with 1.5°C and asset managers to align stewardship practices with asset owners' long-term interests. The Alliance sees a unique role to help drive asset owner-asset manager engagement and has provided a number of guidance pieces to its members on how to engage asset managers.

4.3 Engagement Track: Driving outcomes in the real economy

The most widely known form of engagement is corporate engagement, whereby investors push for positive change through direct discussions with individual companies. This is primarily undertaken via the investor relations and corporate secretary functions. The Alliance is supportive of corporate engagement as an important tool for enabling net zero and for example, encourages all members to join Climate Action 100+. However, in its paper entitled The Future of Investor Engagement (NZAOA 2022d), the Alliance argues that corporate engagement is limited in its ability to address systemic problems like climate change when conducted in isolation from other engagement approaches.

The Alliance' argues in The Future of Investor Engagement (NZAOA 2022d) that there is a need for an evolution in stewardship. To truly enable the transition to net zero, investors must leverage the following three systemic channels of influence:

- sector/value chain engagement
- asset manager engagement
- policy engagement

Sector and value chain engagement can facilitate a systemic understanding of the barriers and opportunities in the transition to net-zero emissions. Asset owners whose portfolios reflect the global economy play a key role in convening and contributing to these dialogues. Sector and value chain engagement can also help to refine investor's portfolio-level strategies and to inform their policy positions in national markets. Overall, the key lesson is the need for clear and concrete policy proposals on aligning company and investor incentives so as to make the net-zero transition feasible across sectors and value chains.

Asset manager engagement is uniquely suited to asset owners since the risks posed by unabated climate change are not just financial but also existential (IPCC 2022). Such a scenario threatens the core business of asset owners—whether it be securing a safe world for their pensioners to retire into or offering a breadth of insurance offerings. A central purpose of the Engagement Track's work is therefore to engage with asset managers to ensure they understand the extent of these concerns and that the responses through their portfolio steering, active voting, and public discourse are commensurate. This is why the Alliance has an asset manager engagement channel for collective action that is proactive and led by its members. The channel is organised into three workstreams which focus on: (i) actively engaging with systemically significant asset managers; (ii) developing materials that summarise ambitious climate expectations and guidelines on asset manager stewardship approaches; and (iii) providing operational peer support to Alliance members to assist with the implementation and integration of the identified net-zero expectations. The Alliance will aim to work with a diverse range of asset managers as much as possible so as to promote gender and geographical representation

Through these interlocking workstreams, the Alliance is creating a competitive environment where asset managers champion climate leadership when bidding for asset owners' business. Such leadership goes beyond just providing a competitive advantage; it is becoming a competitive necessity. The Alliance believes this approach will have broader and lasting impact by encouraging innovation, ambition, and action related to climate change both among asset managers and in the wider investment sector. Increasing expectations on net-zero goals across the institutional investment chain will translate to broader momentum towards net zero in the real economy.

The Alliance believes that the most powerful way in which asset owners can enhance the alignment of asset manager with climate goals is by expanding the ambition and scope of their requests as clients (NZAOA 2022d). Alliance members are encouraged to engage asset managers to implement the following:

1. Commit their entire portfolios to 1.5°C alignment and net zero by 2050, preferably through an established framework like the Net Zero Asset Managers initiative (NZAM),[13] as well as going beyond NZAM's requirements to set interim targets for 2030;
2. Engage and steward all portfolio companies towards decarbonisation targets as far as feasible within today's policy environment;
3. Use their participation in public discourse to encourage the business community and policymakers to build a legislative and regulatory environment conducive to a 1.5°C world;[14]
4. Allocate assets towards companies that are well-positioned for the transition to net zero and develop strategies to increase funding for companies that are leading the transition; and
5. Work with Alliance members on expanding viable opportunities to finance the transition to net zero by collaborating on the expansion of the 1.5°C-aligned investable universe across asset classes (NZAOA 2022d). Examples of effective collaboration are provided in Chapter 6: Financing Transition Track.

Engagement through positions represents a key strategic focus for the Alliance, in addition to individual member action and the policy track work detailed in the next chapter. Asset owners hold a unique vantage point in the finance community as stewards of portfolios that reflect the composition of the global economy. By building on members' experiences from their policy positioning as well as from their corporate, sector, and value chain engagements, the Alliance has formed an active engagement working group. This group focuses on publishing the Alliance's positions relevant to the real economy. The Protocol encourages members to mirror these positions in their own institutional policy positions. A notable example from the last year was the publication of the Alliance's position paper, The Net in Net Zero (NZAOA 2021a).

13 For more information on the Net Zero Asset Managers initiative, visit the following page: netzeroassetmanagers.org

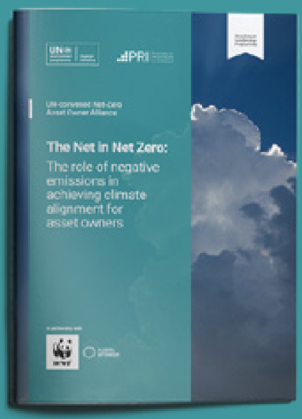
14 This participation should move beyond letter writing campaigns, such as the Global Investor Statement on Climate Change, to encompass asset managers' own global public affairs leads and corporate legal counsel participation in regulatory processes. Find more information here: theinvestoragenda.org/focus-areas/policy-advocacy/

Box 3: The Alliance's Position on The Net in Net Zero

The Alliance paper on the role of negative emissions technologies focuses on three principles:

The Alliance sees abatement as the top priority for the next five to 10 years;

Compensation, including purchasing carbon credits, is a meaningful KPI for real-world impact, but will not be used for measuring net zero or portfolio alignment as part of the Alliance's Protocol; and



Neutralisation via long-term carbon removal will be needed to reach net zero. The Alliance recognises that carbon dioxide removal solutions, both nature-based and technological, will therefore need to be developed at scale. However, in the next five to 10 years, abatement should be the focus for technological solutions that are already feasible, like carbon capture, use, and storage.

The position paper complemented the outlining of these three principles with specific requests of policymakers to help encourage the incentivisation and implementation of these principles in the real economy.

4.4 Outlook: Future work of the Engagement Track

The Engagement Track will continue to pair new asset owner members with more experienced colleagues and coalitions who can support the ongoing and necessary work of corporate engagement through initiatives like Climate Acton 100+ and other ambitious climate engagement coalitions.

The Alliance Engagement Track's newest position will be on the trajectory of the oil and gas sector on the path to a net-zero future. This work is developed by Alliance members and will benefit from the expert advice of the Alliance's partners and the SAB.

5. Progress on creating a supportive policy environment

Climate change presents a range of risks. These include physical risks to the environment and disproportionate impacts to wider society especially the marginalised groups, as well risks to the financial system from a disorderly or failed transition to net zero. If capital is misallocated at a systemic level, this will cause further threat to financial stability and social equality. The IEA argues that US$26 trillion in capital re-allocation is needed by 2040 for the economy to fully align with the Paris Agreement (IEA 2021). Even today, the full implementation of countries' NDCs under the Paris Agreement would still cause temperature rises of 2.2ºC, meaning that much more must be done to keep net zero and 1.5 ºC within reach.

Therefore, a clear, consistent, and enabling policy environment is critical to the viability of the net-zero transition. Public policy signals incentivise the inclusive flow of capital across the global economy. Without such signals, companies and financial markets lack the framework for the efficient mobilisation of capital towards sectors and technologies that can support an equitable transition. Particularly amidst the current global energy security crisis, choices made by policymakers should not delay the longer-term adjustments that are needed for energy markets and infrastructure to align with the Paris Agreement and reach net-zero emissions. Successful policy implementation helps minimise risks to the real economy, to individual entities, and to the financial system.

Achieving a just net-zero global economy by 2050 is unlikely to be feasible without robust support from the private sector. Finance can be an enabler of, or a constraint to, achieving the Paris Agreement goals. Investors can play an influential role in raising awareness and making the business case for achieving climate neutrality by mid-century, resting on the fact that net-zero strategies are not only *permissible* by law but are actually *prescribed* in many jurisdictions. This is because legislators in these jurisdictions recognise that net zero can represent an important means for asset owners to meet their core fiduciary duty of maintaining the ability to generate long-term returns. The role of the Alliance's Policy Track is to amplify investor voices in realising collective climate goals.

5.1 Key policy outcomes since the inaugural progress report

Since the Alliance's inaugural progress report, the Policy Track has furthered its engagement in key markets, including China, the European Union, Japan, the United States of America, and the United Kingdom. This track has also deepened its engagement on priority policy topics, such as carbon pricing, energy transition, and policy change in the financial system. Some of the most significant areas of current work are described below.

Reconciling energy security with net-zero commitments. Countries are currently facing critical choices in their energy strategies given heightened geopolitical tensions and the escalating climate crisis. In this context, governments must ensure that energy security policies are compatible with net-zero scenarios, as delineated by either the IEA or the IPCC. In the short term, therefore, countries should focus on diversifying their energy supply and scaling energy efficiency measures. This is particularly true for European countries. In the medium to long term, the imperative should be to accelerate the net-zero transition, for reasons of both energy security and national security. In their transition strategies, members of the Alliance continue to recognise the need to identify and address specific gender inequalities affecting individual sectors in addition to those facing the economy at large. This informs their ongoing engagement on inclusive and gender-responsive policies that enable investments in climate mitigation, adaptation, and clean technologies.

Leveraging carbon pricing to tackle the energy 'trilemma'. Governmental carbon pricing is a key component of a comprehensive and necessary policy toolkit required to achieve an economy-wide alignment to the Paris Agreement goals. The current triple energy policy challenge—namely, tackling energy security, affordability, and climate change—further underscores the imperative of a structural shift to net zero. Well-designed carbon pricing instruments should provide a broad-based incentive for cost-effective decarbonisation while minimising negative distributional impacts on communities and households, thus delivering a just transition. To inspire private-sector confidence and attract flows of capital and investment to climate solutions, policymakers need to transparently outline how they plan to deploy the complete toolbox of policy instruments. The Alliance's updated position paper, Governmental Carbon Pricing (NZAOA 2022c), outlines five best practices in carbon-pricing design. These comprise: ensuring appropriate coverage and ambition; delivering a just transition; providing a predictable price signal; minimising competitive distortions; and promoting international cooperation. The Alliance has also engaged with the German G7 Presidency on the establishment of a global climate club that promotes international cooperation.

Supporting financial system policy change. The Alliance supports a transformation in corporate transparency on climate-related disclosure through globally harmonised practices and standards, based on company climate data that are regular, reliable, comparable, and assured. This year, Alliance members supported the SEC's proposed rules on Enhancement and Standardization of Climate-Related Disclosures for Investors (NZAOA 2022e), the ISSB's Climate Exposure Draft (NZAOA 2022f), and the European Financial Reporting Advisory Group's consultation on the first set of European Sustainability

Reporting Standards. Continued input and support for the development of a common set of climate-related metrics and guidance on net-zero transition plans are a high priority.

Sector policies to promote transition. Sector policies, along with real economy and financial sector policies, represent a key component of an effective and orderly transition to net zero. At a global level, keeping carbon sinks intact remains a priority for the Policy Track, as does halting and reversing deforestation. It is important to recognise the interconnectedness of policies, requiring decisionmakers to deliver a climate policy package with complementary policies to ensure a just transition for affected communities. At a national level, key areas of focus include: decarbonising the power sector; phasing out fossil-fuel subsidies; and ensuring policy support for the scale-up of new technologies in hard-to-abate sectors.

While identifying policy-influencing opportunities is an important component of the policy engagement, it is equally critical to deliver the right message, at the right time, and to the right level of seniority. The Alliance pursues its policy advocacy through publications of discussion papers, position papers, statements, op-eds, and letters to policymakers. In the same vein, the Alliance holds bilateral meetings with relevant policymakers and works with parallel initiatives to unite and amplify investor voices across the industry.

5.2 Case Study: Dai-ichi Life

The Japanese insurer Dai-ichi Life joined the Alliance as the first Asian member in February 2021. This carried strategic significance as Asia-Pacific accounts for half of global carbon dioxide emissions. Expanding the engagement of investors in Asian countries with governments that have committed to carbon neutrality is therefore crucial. Dai-ichi Life sees its active involvement in net-zero coalitions as a key priority, and believes it helps set the trend for further Asian investor participation.

Dai-ichi Life is working with other Japanese financial institutions to engage with governments in developing policies that enable a net-zero transition. For example, Dai-ichi Life is engaging with the Japanese government through the Life Insurance Association of Japan (Association), which is further strengthened by Nippon Life, Sumitomo Life, and Meiji Yasuda Life Insurance—all of which became members of the Alliance in October 2021. The Association has issued annual reports that include statements to the government and that are then used as the basis for engagement with the government. The reports are written based on the responses of hundreds of companies and investors in Japan to a questionnaire on responsible investment. Some of the key asks in its most recent report include: proposing energy policies centred on renewable energy; formulating specific roadmap toward carbon neutrality; and developing infrastructure to expand renewable energy. The 2021 Report calls on the Japanese government to formulate specific policies to enable the realisation of carbon neutrality.

> Dai-ichi Life believes that in order to conduct more effective engagement with governments, it is necessary to increase the number of collaborating financial institutions. Given Asia's importance for achieving global carbon neutrality, it is essential that more organisations from this region commit to net zero by becoming members of the Alliance.

5.3 Outlook: Future work of the Policy Track

In the coming months, the Policy Track will develop additional positions on key topics of utmost importance to the Alliance's collective goal and will work towards influencing the agendas of the G7 and G20 Summits this year (held in Germany and Indonesia respectively) and next year (Japan and India), as well as engaging in UNFCCC COP27 policy and finance agenda.

The Track will continue to deepen engagements while focusing on the four aforementioned outcomes:

- G7 countries committing to an equitable and robust approach to carbon pricing,
- G20 countries developing and publishing credible emission reduction plans and phasing out of fossil fuel subsidies as soon as possible,
- Parties to the UNFCCC submitting more ambitious NDCs ahead of COP27, and
- Contributing to a positive outcome at the Paris Agreement Global Stock Take by 2023.

5.4 Special Outlook: COP27

The 2021 NDC Synthesis Report prepared by UN Climate Change showed that countries are far away from the level of ambition needed to achieve the Paris Agreement goals. The decision taken at COP26, requiring all countries to submit stronger plans on an annual basis, thus provides a reenforcing mechanism to enable greater accountability and transparency.

The UNFCCC COP27 conference is taking place in 2022 in Sharm el-Sheikh, Egypt. In advance of the first global stocktake in 2023—one of the centerpieces of the Paris Agreement's increased ambition mechanism—COP27 represents what is likely to be the final opportunity to take global collective action on the climate crisis and achieve net-zero emissions across the economy in line with the Paris Agreement.

Alongside the pursuit of long-term climate objectives, the world must find ways to urgently address the trilemma of energy security, cost-of-living, and climate crises. Therefore, we need a whole-of-society, whole-of-economy, whole-of-finance just transition to net zero. Governments must convene in Sharm el-Sheikh to swiftly embed the global scientific consensus in submitting and implementing their ratcheted NDCs, while placing disproportionately affected regions and communities in the center of their action plans.

Ahead of COP27, the Alliance calls on governments to urgently ensure the following:

1. **Deliver enhanced NDCs with stronger ambition and details for implementation:** ensure that 2030 targets are aligned with the global goal of limiting temperature rise to 1.5ºC. Countries without 1.5-aligned emissions pledges need to revise and strengthen 2030 targets by COP27. The Alliance believes that credible longer-term ambition must be aligned with immediate actions and intermediate, near-term decarbonisation targets, ideally reviewed and set every five years. This is why all Alliance members are required to set intermediate targets in line with Article 4.9 of the Paris Agreement.

2. **Implement long-term domestic policies that enable the just transition towards a net-zero emissions economy:** countries must detail an actionable plan, in the long and short term, of how decarbonisation targets will be achieved, specifying the policy instruments to be deployed, as well and their timeline and scale. The Alliance argues in its Position Paper on Governmental Carbon Pricing (NZAOA 2022c) that to effectively reconcile energy security and net-zero commitments, countries should consider putting forth a well-designed carbon price and implementing the full and equitable phaseout of fossil fuel subsidies.

3. **Continue to reform existing finance and investment policy frameworks so that they direct investment towards net-zero goals, ensuring long-term policy clarity and direction:** a clear, consistent, and enabling policy environment is critical to the viability of the transition to net zero. Policy implementation will help minimise risks to the real economy and to the financial system, while engendering real economy emission reduction investment outcomes. Priority measures include mandating comparable, interoperable and decision-useful climate-related financial disclosures for companies and financial institutions aligned with international standards.

4. **Address the urgent needs of EMDEs for adaptation and resilience:** developed countries should work on mobilising both public and private climate finance required to unlock higher levels of ambition in developing countries' NDCs and to support and strengthen local capacities for adaptation and resilience against worsening climate impacts. As has been advocated by the Alliance, governments and multilateral development banks should scale-up blended finance vehicles targeting investments in EMDEs for the transition of the real-economy.

5. **Enhance the necessary institutional arrangements and capacity to advance monitoring, reporting, review, and enforcement of effective policy implementation:** while governments are organised in different ways, common elements could include the following measures: dedicating independent climate change bodies with mandates to steer and coordinate climate policy; scaling capabilities to monitor, evaluate, and advise on community climate policy progress; and delivering systems and structures for consulting affected communities in policy design and implementation.

6. Progress on financing the net-zero transition

6.1 Key findings

To enable consistency across the Alliance membership, a definition for 'climate solution investments' has been established taking into account publicly available definitions, especially that of the European Union's taxonomy for sustainable activities (Regulation 2020/852). The Alliance relies on the following:

> "Climate solution investments are investments in economic activities considered to contribute substantially
>
> - to climate change mitigation (solutions substantially reducing greenhouse gases by avoiding, removing emissions/by sequestering carbon dioxide already in the atmosphere) 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 these objectives must be assessed to ensure they do not cause significant harm to environmental or social objectives."

Investments in climate solutions across the Alliance are growing in absolute terms as well as per member. Certification schemes such as green bonds account for the largest share of these investments, followed by investments in the buildings and energy sector, which asset owners have defined as contributing to the transition.

Asset owners that set financing targets have a combined total AUM of US$6.2 trillion. The percent invested in Climate Solutions held steady at four per cent. However, the absolute value increased by nearly three times.[15]

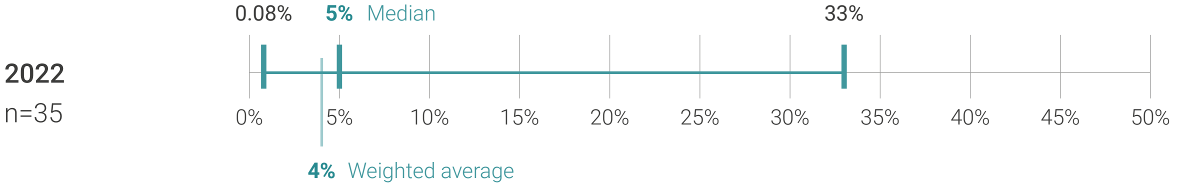
15 Interpretation note: one member pulls up the simple average fairly substantially, given an allocation to climate solutions that is significantly higher than the average across the remainder of the asset owners; this is why both the median and arithmetic average have been provided.

Figure 13: Share of climate solution investments

(US$ billion)	2021	2022
Total absolute value of investments in climate solutions	87	253
Total AUM of AOs setting financial targets	2,120	6,155

Source: The Alliance's members' data collected by the Alliance's MRV Track

Figure 14: Range in the share of climate solution investments (as percentage of total AUM)

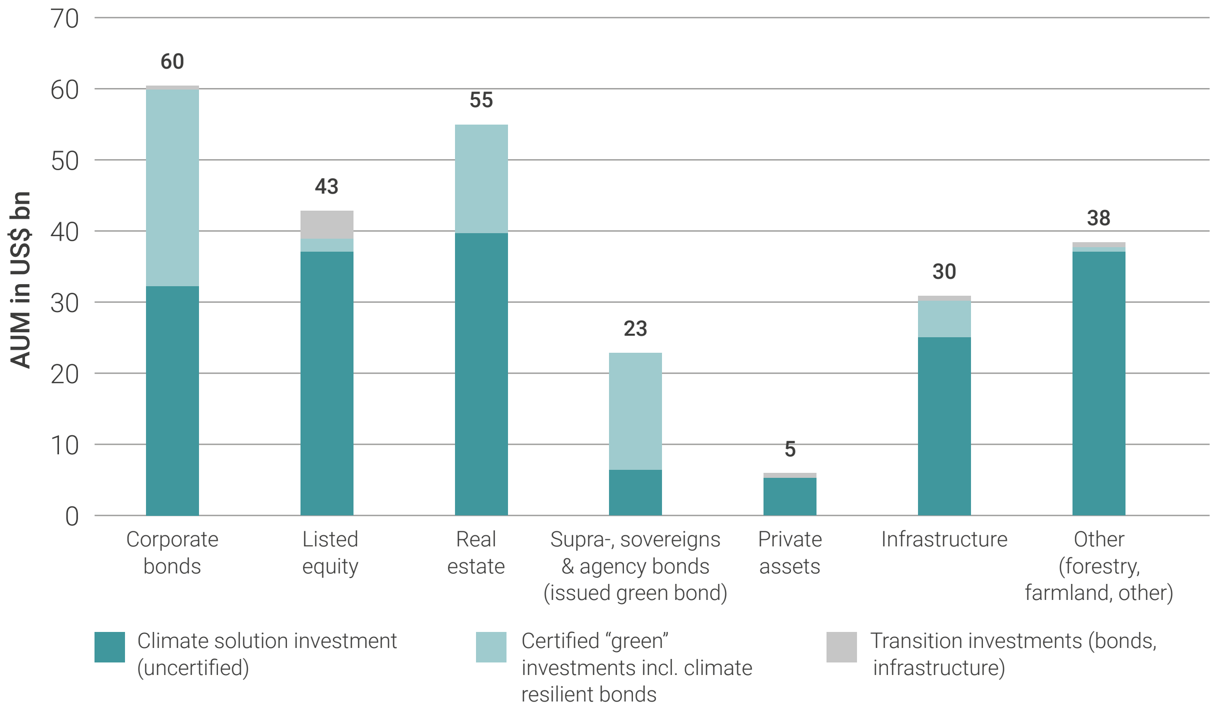


Percentage range of investment in climate solutions of total AUM

33% is a notable outlier likely explained by the smaller size of the asset owner

In absolute terms, these investments now total US$253 billion. The following figure shows how this amount is allocated per asset class.

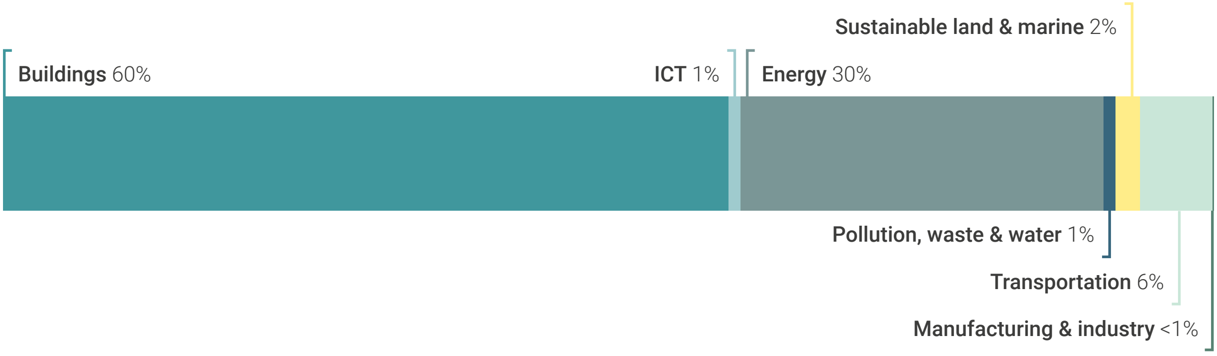
Figure 15: Climate solution investments per asset class (US$bn)



Source: Data from Alliance members collected by the Alliance's MRV Track

With regards to sectoral allocation of climate solution investments the largest portion is in certified green investments (a certification scheme which may vary by jurisdiction), within certified green investments a sectoral split is for now not available consistently across members.

Figure 16: Percentage of climate solution investments per sector[16]



Source: Data from Alliance members collected by the Alliance's MRV Track

6.2 How Financing Transition Targets contribute to the theory of change

To support the transition to a world which stays within the global warming limit of 1.5°C, capital flows need to be allocated to the relevant markets. The global economic benefit of limiting warming to even 1.5°C is reported to exceed the cost of mitigation. Furthermore, it is estimated that mitigation options costing US$100 tCO_2-eq or less could reduce global GHG emissions by at least half of 2019 levels by 2030 (IPCC 2022).

Decarbonisation of an investment portfolio and financing clean technologies are interlinked approaches as financing clean assets feeds into an asset owner's overall sub-portfolio or sector decarbonisation targets. Therefore, investments in climate solutions and the decarbonisation of an investment portfolio are two sides of the same net-zero economy coin.

In 2022, the Alliance formed workstreams that focused on climate solution investment in emerging markets and developing economies. While these regions (excluding China) contribute insignificantly to anthropogenic global warming, they suffer most from impacts of climate change as they are disproportionately exposed to heat waves, droughts, heavy rainfalls, and the propagation of diseases (IPCC 2022). These exposures exacerbate already exiting inequalities with particular devasting effects on those most vulnerable, for example women. In the decades to come, demographic and economic growth are both projected to be higher in EMDEs. As such, a substantial amount of the investments financing the transition need to take place in those specific regions.

However, emerging markets have had limited access to climate financing instruments, such as green bonds. Tightening monetary policies (triggered by inflation) and a looming debt crisis in the Global South threaten to further direct capital away from these markets. This is particularly alarming since achieving the global net-zero economy assumes that some emerging countries will leapfrog coal lock-ins, while others will finance their phase-out of domestic coal production. Emerging markets and the least developed countries

16 This chart covers 43% of reported investments assigned to sectors; 37% of the total reported sum was not assigned to a sector by the reporting asset owners.

cannot surmount this challenge alone as their fiscal spending is already stretched thin, especially having mobilised resources to respond to the COVID pandemic since early 2020 and now facing raising commodity and food prices.

A tension therefore exists. On the one hand, green and clean energy and technologies must be accessible and affordable for all countries to reach net zero. On the other, asset owners' fiduciary duty constraints regarding risk/return profiles limit investments in the Global South.

Members of the Alliance's Financing Transition Track meet in working groups to elaborate various themes approaches to enhancing the enabling environment for investors. This includes engagements with expert external organisations, such as Convergence, Anthropocene Fixed Income Institute, and Carbon Direct,[17] which provide instrumental input and a high level of expertise.

Scaling Blended Finance Working Group: Members of the Alliance identified blended finance vehicles as an important instrument for unlocking the desperately needed private investments in support of a sustainable, low-carbon global economy. The Alliance's discussion paper, Scaling Blended Finance (NZAOA 2021b), describes the hurdles and the potential solutions for scaling blended finance from an asset owner perspective. In 2022, the Scaling Blended Finance Working Group covered the following streams of activities.

Through the Call to Action to Asset Managers (NZAOA 2021c) for climate-focused blended finance vehicles (first launched in February 2021), the Alliance has continued to collaborate with asset managers in its efforts to drive the design of scalable blended finance vehicles that meet the needs and requirements of institutional investors. To date, 24 vehicles have been submitted by a diverse set of asset managers. With a focus on developing and emerging economies, the proposed private-debt and private-equity vehicles and platforms cover a broad range of sectors. This reflects the immense universe of investment opportunities in the net-zero transition. A selective review of submissions identified eight vehicles that best met the criteria. The asset managers behind these shortlisted vehicles were then given a platform to present their vehicles to interested Alliance members through two workshops.

Given the limited progress to date in scaling blended finance, the Alliance looks to join forces with key stakeholders to drive the systemic change needed. To this end, the Alliance invited key stakeholders to a closed-door workshop in June 2022, where participants discussed potential solutions to the main barriers for scaling blended finance. Around 50 selected participants (including Alliance members, G7 donor governments, DFIs, foundations, and other experts) shared their insights and formulated key action points. The Alliance aims to both bring these action points to the attention of relevant constituencies, via upcoming statement, Call on Policymakers to support Scaling Blended Finance, and to continue the fruitful and solution-oriented exchange initiated in the workshop.

17 To find out more about Convergence, consult the following website: convergence.finance/. For more information on Anthropocene Fixed Income Institute, consult their website: https anthropocenefii.org/afii-home.

A partnership with Convergence, a global network for blended finance, was established in January 2022 to further promote exchange of knowledge and stakeholder collaboration. This partnership offers tailored trainings and workshops for Alliance members. It also gives members access to Convergence's deal and investor matchmaking online platform for blended finance transactions in emerging and frontier markets.

Box 4: Potential of blended finance in delivering positive social impacts of decarbonisation

Investment in decarbonisation within and outside the value chains of companies is essential for realising a net-zero world. Whole industries and sectors will likely be transformed on the pathway to net zero. The real-world impact of decarbonisation will go beyond mitigating temperature change and will result in social, economic, and other environmental impacts that must be accounted for in business decision-making. These are often brought into context when environmental, social, and governance (ESG) issues are integrated into investment decision-making processes (NZAOA 2021d).

In taking social impacts (the 'S' of ESG) into account, it is essential that the road to net zero respects diversity and inclusion and ensures gender equality because the burden of climate change disproportionately effects women and poor communities (UNFCCC n.d.). By the same token, precisely because women's livelihoods tend to be 'climate-sensitive', women are also likely to benefit most directly from environmental conservation, protection, and improvement (UNDP 2016).

Financing the Transition in Emerging Markets Working Group: This group was created to identify practical solutions to mobilise the investment required to achieve a just net-zero transition in EMDEs. The project is supported by the Alliance, the Sustainable Development Investment Partnership (joint initiative between the World Economic Forum and the Organisation for Economic Co-operation and Development), and the EU-ASEAN Business Council. The project hosts a series of regionally focused public webinars as well as Chatham House rules-based roundtable workshops with a twin goal: to raise awareness of the need for transition in EMDEs; and to develop potential short- and medium-term recommendations to accelerate transition investment and financing in EMDEs.

The first public webinar, entitled 'Financing the Net-zero Transition in Emerging Markets', was held in April 2022 following the meeting of the Association of Southeast Asian Nations (ASEAN) Finance Ministers and Central Bank Governors. Speakers included government officials, asset owners, multilateral banks, and corporates in the ASEAN region. The first roundtable was held in June 2022 and focused on growing the market for green and transition bonds in the region. Participants included regulators, asset owners, asset managers, corporates, underwriters, credit rating agencies, and other experts in the region. The sub-track has plans to hold public webinars on Africa and India during the remainder of 2022, together with two more roundtables. The outputs from these roundtables will be used to compose an actionable discussion paper that will be available ahead of COP27 in November 2022.

Climate Solution Platform Working Group: With ESG Book,[18] the Alliance is jointly developing a platform that provides enhanced transparency for institutional investors regarding the climate performance of investment opportunities, such as listed equity, funds, and ETFs (equity, fixed income and mixed funds). In the future, the platform, which covers over 25,000 companies and more than 160,000 fund listings, should also include infrastructure projects or private assets. Through this work, the Alliance is supporting disclosure and transparency on the climate data of companies and investment opportunities. The online search function of the platform will be open and free to all institutional investors. In this way, the Alliance is encouraging broad market transparency and thus contributing to the scaling of investments into the green transition.

Collaboration with Anthropocene Fixed Income Institute: Many asset owners are mainly invested via fixed income, sovereign debt, corporate bonds, and private debt. However, decarbonisation of fixed income portfolios has largely been overlooked to date. To respond to this, the Alliance established a collaboration in May 2022 with the Anthropocene Fixed Income Institute—a non-profit organisation that aims to empower the fixed income markets to drive the climate transition. The collaboration includes knowledge sharing about the systemic decarbonisation of fixed income portfolios, as well as active risk management and related trade opportunities (e.g. in sustainability-linked bonds and green bonds).

Climate Benchmark Working Group: As investment benchmarks are one of the most relevant tools for investment portfolio steering, climate benchmarks play an important role in net-zero investment practices. The Climate Benchmarks Working Group investigated the European Union's Climate Transition Benchmarks concept,[19] compared it with the Alliance's target-setting approach, and analysed four different Climate Equity Benchmarks operating in the European Union. Members are now discussing fixed income benchmarks and general principles for benchmarks with a view to helping institutional investors steer globally diversified investment portfolios to net zero.

6.3 Case study: Allianz

As a founding member of the Alliance, Allianz has set itself ambitious targets to decarbonise its investment portfolio, which has a value of around €800 billion. The German financial services firm has also set significant reduction milestones ahead of 2050. Key elements that contribute to aligning its total balance sheet with the 2050 net-zero commitment include: (i) the decarbonisation of existing traded and non-traded investment portfolios, ii) a proactive engagement approach; and (iii) the growth of investments into climate solutions. To realise the latter, Allianz is joining forces with both internal and external asset managers.

18 More information can be found here: esgbook.com/

19 More information on the EU climate transition and EU Paris-aligned Benchmarks and the mandatory disclosure requirement can be found on the website of the European Commission: ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-climate-benchmarks-and-benchmarks-esg-disclosures_en

Climate solutions and 'clean technology' require considerable injections of capital investment for the net-zero transition to occur at the speed and scale required. However, risk-return patterns are often not appropriate to meet the fiduciary duty and risk capital constraints of insurance investors. Allianz has therefore identified the scaling-up of blended finance vehicles as a key strategy to release much-needed investment in market segments that otherwise prove unattractive.

Through a blended finance approach, Allianz hopes to help contribute the necessary private capital to support underfinanced markets to grow on a net-zero emission path. Allianz also actively engages in the Alliance's continued efforts to collaborate with relevant public and private-sector stakeholders to overcome barriers in bringing blended finance to scale.

The Allianz Global Investors' Emerging Market Climate Action Fund (EMCAF), in which Allianz acts as an anchor investor, presents an example of an investment stream that is gaining in importance and can serve as a model structure for the mobilisation of private capital in support of climate transition at scale.

EMCAF is an innovative blended finance fund with a target of €600 million. Created in partnership between Allianz Global Investors and the European Investment Bank (EIB), the fund provides early-stage equity financing to greenfield climate mitigation, climate adaptation, and environmental projects in emerging and developing markets. It works by backing fund managers and project developers that are active in these target markets. Within the climate mitigation theme specifically, EMCAF provides catalytic equity financing to primarily greenfield renewable energy and energy efficiency projects, as well as ventures aligned to clean transport, responsible forestry, sustainable land use, and access to energy.

The Fund is structured as a risk-tiered vehicle. It comprises a junior tranche (one third) that is funded by public investors and a senior tranche (two thirds) financed by private institutional investors. The former serves to de-risk the latter. EMCAF's other anchor investors alongside Allianz include the governments of Germany and Luxembourg, the Nordic Development Fund, Folksam,[20] and the EIB.

In this first of its kind partnership, Allianz Global Investors manages the Fund and is responsible for its performance. Meanwhile, the EIB provides the Fund's sourcing network, climate finance expertise, and due diligence rigor on environmental and social topics.

EMCAF is expected to mobilise up to €10 billion to provide final financing to over 150 projects. Its fund-of-funds structure, coupled with its focus on early-stage equity financing, serves as an impact multiplier. It is expected to incubate the financing of 9–10 gigawatts of new clean energy capacity in its target markets, leading to a total estimated lifetime carbon reduction of more than 500 million tonnes of carbon dioxide equivalent.

20 Folksam Group is one of Sweden´s largest asset owners and is also a member of the Alliance, for more information visit their website: nyhetsrum.folksam.se/en/about-folksam/

6.4 Outlook: Future work of the Financing Transition Track

The Financing Transition Track will continue supporting members and institutional investors in their efforts to decarbonise their investment portfolios and finance the net-zero transition. For investment portfolio steering, the themes of climate benchmarks and climate solution platforms will be of high relevance, as will ongoing collaboration with external experts. The Alliance will also continue to raise its voice and engage with policy-makers and other stakeholders to advocate for an enabling environment to further scale finance into the Global South.

7. Closing note

Despite the progress laid out in this report, the clock is ticking. Much still remains to be done, and the Alliance is far from complacent. While US$7.1 trillion in AUM is now encompassed by the Alliance's pledge, this amount must still grow to create a significant breakthrough in the finance industry.

The Alliance will continue to work tirelessly to advance fresh ideas and novel investment vehicles to unlock the private capital required to secure a net-zero future. Yet, climate change is a collective challenge and requires a collective response. The up-coming UNFCCC summit in Egypt in November represents the final opportunity for meaningful collective action in support of a net-zero world. Failure will mean that the rapid speed of climate change continues—as now—to exceed the stop-start pace of the transition.

In this context of growing climate emergency, the Alliance and its members are calling on governments to come together behind a collective plan of action at COP27 in Egypt. Half measures will no longer suffice. A practical vision for radical transformation is now desperately needed—one that mixes urgency and pragmatism in order to usher in a just transition for the whole of society, the whole of the economy, and the whole of finance.

References

California Public Employees' Retirement System (n.d.). CalPERS United Nations Net Zero Asset Owner Alliance Partnership. calpers.ca.gov/page/investments/sustainable-investments-program/climate-change/united-nations-net-zero-asset-owner-alliance-partnership Accessed 4 August 2022.

Glasgow Financial Alliance for Net Zero *(2022). Guidance on Use of Sectoral Pathways for Financial Institutions*. assets.bbhub.io/company/sites/63/2022/06/GFANZ_Guidance-on-Use-of-Sectoral-Pathways-for-Financial-Institutions_June2022.pdf

Intergovernmental Panel on Climate Change (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability. *Sixth Assessment Report*. ipcc.ch/report/sixth-assessment-report-working-group-ii/

International Energy Agency (2021). *Net zero by 2050: A roadmap for the global energy sector.* iea.org/reports/net-zero-by-2050

Paris Agreement (2015), entered into force on 4 November 2016.

Robins, N., Brunsting, V. and Wood, D. (2018). *Climate Change and the Just Transition: A Guide for Investor Action.* Cambridge: Initiative for Responsible Investment, Harvard Kennedy School. unpri.org/download?ac=9452

Teske, Sven. (2022). Achieving the Paris Climate Agreement Goals Part 2: Science-based Target Setting for the Finance industry — Net-Zero Sectoral 1.5˚C Pathways for Real Economy Sectors. link.springer.com/content/pdf/10.1007/978-3-030-99177-7.pdf

Regulation 2020/852 of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088. (2020). *Official Journal* L 198/13.

Swiss Re (2021). Carbon intensity of the corporate bond and listed equity portfolios [graph]. *Climate-related financial disclosures*, p. 183. swissre.com/dam/jcr:4c81f4c5-55a5-4830-ba51-d23c5438cee1/ar21-financial-report-tcfd.pdf. Accesses 7 September 2022.

UN-convened Net-Zero Asset Owner Alliance (2021a). The Net in Net Zero. unepfi.org/publications/the-role-of-negative-emissions-in-achieving-climate-alignment-for-asset-owners/

UN-convened Net-Zero Asset Owner Alliance (2021b). *Scaling Blended Finance Discussion Paper.* unepfi.org/publications/scaling-blended-finance/

UN-convened Net-Zero Asset Owner Alliance (2021c). *Alliance Climate Blended Finance Vehicles' Call to Action to Asset Managers*. unepfi.org/wordpress/wp-content/uploads/2021/02/20210210-Blended-Finance-Call-to-Action.pdf

UN-convened Net-Zero Asset Owner Alliance (2021d). *Progress Report 2021: Credible Ambition, Immediate Action*. unepfi.org/publications/credible-ambition-immediate-action/

UN-convened Net-Zero Asset Owner Alliance (2022a). Commitment

Document for Participating Asset Owners. unepfi.org/wordpress/wp-content/uploads/2021/02/04-UN-AOA-COMMITMENT-DOC-2022-D2.pdf

UN-convened Net-Zero Asset Owner Alliance (2022b). *Escalating Energy Security Crisis Underscores Imperative for Accelerated Net-Zero Transition.* unepfi.org/news/industries/investment/escalating-energy-security-crisis-underscores-imperative-for-accelerated-net-zero-transition/

UN-convened Net-Zero Asset Owner Alliance (2022c). *Net-Zero Asset Owner Alliance Position Paper On Governmental Carbon Pricing.* unepfi.org/publications/net-zero-asset-owner-alliance-position-paper-on-governmental-carbon-pricing/

UN-convened Net-Zero Asset Owner Alliance (2022d). *The Future of Investor Engagement: A Call For Systematic Stewardship To Address Systemic Climate Risk.* unepfi.org/publications/the-future-of-investor-engagement-a-call-for-systematic-stewardship-to-address-systemic-climate-risk/

UN-convened Net-Zero Asset Owner Alliance (2022e). Net-Zero Asset Owner Alliance Welcomes Proposed US SEC Climate Disclosure Rules, 8 June. unepfi.org/news/net-zero-asset-owner-alliance-welcomes-proposed-us-sec-climate-related-disclosure-rules/. Accessed 20 July 2022.

UN-convened Net-Zero Asset Owner Alliance (2022f). Net-Zero Asset Owner Alliance Statement on ISSB Climate Exposure Draft, 28 July. unepfi.org/news/industries/investment/net-zero-asset-owner-alliance-statement-on-statement-on-the-international-sustainable-standards-board-issb-climate-exposure-draft/. Accessed 28 July 2022.

United Nations Development Programme (2016). Gender and climate finance. *Gender and climate change:* New York. undp.org/sites/g/files/zskgke326/files/publications/UNDP%20Gender%20and%20Climate%20Finance%20Policy%20Brief%205-WEB.pdf

United Nations Environment Programme (2015). *The Financial System We Need: Aligning the Financial System with Sustainable Development*. unep.org/resources/report/financial-system-we-need-aligning-financial-system-sustainable-development. Accessed 28 July 2022.

United Nations Framework Convention on Climate Change (n.d.). *Introduction to Gender and Climate Change*. unfccc.int/gender. Accessed 28 July 2022.

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