TARGETING FAILURE

WHY INVESTOR CLIMATE TARGETS DON'T ENSURE DECARBONIZATION

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EXECUTIVE SUMMARY

Over the past decade, investors have increasingly adopted climate targets in response to pressure to address climate-related financial risks and to transition to a net-zero economy. This report assesses the robustness, ambition, and transparency of these targets across a sample of 83 global investors. We examine emissions, alignment, engagement, and climate solutions investment targets.

Although some progress has been made in formalizing climate objectives, our analysis highlights major shortcomings that severely undermine the likely real-world impact of the targets. This report offers recommendations for investors to standardize, simplify, and make target-setting practices more transparent, and — above all — to make them fit for the purpose of helping to drive the rapid decarbonization of the "real economy".

METHODOLOGY

The study encompasses 83 global investors, selected to give a representative sample of investor types (asset management, insurance, pensions, and sovereign wealth funds) and geographical location — Europe, North America, and Asia.

We reviewed public disclosures, including annual reports, sustainability statements, climate reports, Principles for Responsible Investment (PRI) progress reports, and press releases. Reclaim Finance provided the data collected on climate targets to in-scope investors prior to publication. We incorporated into this report any comments received and deemed relevant.

We defined "targets" as climate commitments with a quantitative element and a defined timeframe. Variables assessed included asset class coverage, emission scopes, baseline and target years, levels of ambition, and progress reporting. Targets spanned four categories:[1]

1. Emissions targets.

These seek a reduction in absolute emissions or emissions intensity of investment portfolios. These may be across sub-portfolios (such as asset classes or industrial sectors) or across investors' entire portfolios. The most common emissions target metrics are below (see Appendix 1 for the formulas behind these metrics):

- **Physical emissions intensity.** These are the most frequently used targets (see Table 1). They are expressed as a ratio between emissions and (usually) sectoral output (e.g. gCO_2e/kWh in the power sector; tCO_2e/t in the cement or steel industrial sectors; or $kgCO_2e/m^2$ for real estate). Investors use it mostly for the real estate and energy (power generation and fossil fuels) sectors, which together account for 60% of the physical emissions intensity targets.
- **Absolute emissions.** These targets are mostly based on the Partnership for Carbon Accounting Financials' (PCAF) methodology for calculating "financed emissions." They are expressed in tCO_2e. Financed emissions, as defined by PCAF, are intended to represent the share of portfolio company (investee) emissions for which each of its investors can be held responsible. However, because it relies on an attribution factor linked to corporate values, which are volatile over time and which are only weakly correlated with emissions, PCAF's financed emissions formula is poorly suited for evaluating changes in portfolio emissions, and therefore for target setting.

  Three of the insurance companies we have reviewed have set targets for their underwriting portfolios which we have included in the sample. These targets are based on PCAF's methodology for insurance-associated emissions (IAE) which uses absolute corporate emissions multiplied by a financial attribution factor — insurance premiums divided by customer revenue.
- **Economic emissions intensity.** Two types of targets are used here, both of which rely on volatile financial indicators that are mostly non-correlated with changes in emissions:
  - *Carbon footprint*

    This uses an attribution factor based on portfolio company emissions divided by the value of the investments in these companies.
  - *Weighted average carbon intensity (WACI)*

    This uses emissions per unit of investee revenue.

2. Climate solutions investment targets.

These seek increased allocations to "green" or "sustainable" activities. Definitions of "green" and "sustainable" are varied and often not explained clearly (or at all). They are frequently claimed to be informed by the International Capital Market Association (ICMA) Green Bond Principles (GBP) and Sustainability Bond Guidelines (SBG).

3. Engagement targets.

These are mainly commitments to stewardship or active ownership with portfolio companies. They are usually vague, with sometimes no other objective than "engaging" a large share, or a predetermined number, of the highest emitters in the investor's portfolio.

4. Alignment targets.

These seek to align portfolios with temperature pathways or to increase the percentage of holdings aligned with outcomes or actions such as net zero or the adoption of science-based targets. These targets are based on indicators that are aggregated across portfolio companies (e.g. Implied Temperature Rise) and/or linked to outcomes that are vague and unrelated to concrete actions (e.g. a percentage of portfolio companies that have made a net-zero commitment), and therefore do not help to translate the investor's climate strategy directly into real-world impacts.

Table 1: Number of targets and of investors using specific metrics

Metric type	Number of targets	Number of investors
Alignment	41	13
Climate solutions investment	36	24
Engagement	26	19
Physical emissions intensity	80	25
Carbon footprint	50	28
Absolute emissions	28	15
Weighted average carbon intensity (WACI)	21	16

CONCLUSIONS

Target setting is partial, often opaque, and unclearly related to "real-world" emission reductions

Out of the 83 investors in scope, **more than a fifth lack any targets**. Most investors have fewer than five targets, falling well short of what is needed for a comprehensive decarbonization strategy.

The main overall weaknesses identified in investor climate targets are:

- **They are not part of a coherent strategy.** Targets often appear to be isolated initiatives with no explanation of how they fit within an investor's broader sustainability strategy.
- **Transparency is typically extremely low.** Target methodologies, including underlying formulae, extent of assets, emission scopes, and business divisions covered, are mostly opaque, as is the monitoring of progress toward meeting targets. Reporting on targets was found to be piecemeal (e.g. only for one reporting year or partially for one asset class).
  - ◊ Some investors, including Allianz and Zurich Insurance Group, have multiple targets and comprehensive annual reporting, including attribution studies which aim to explain the reasons behind reported changes in portfolio emissions. Others, such as CalPERS, simply publish a table when making their initial commitments and do not update it or track progress.
- **Emission targets:**
  - ◊ **These targets often use volatile financial-based metrics with weak links to real-world emissions,** such as absolute financed emissions, WACI, or carbon footprint. For all of these there is an inverse relationship between the financial indicator (corporate value for financed emissions, investment values for carbon footprint, and investee revenue for WACI) and the value of the metric. Because financial values tend to rise over the long-term due to economic growth and inflation "emissions" as measured by these metrics will appear to fall over time even if real-world emissions plateau or increase — as long as the rate of growth of the financial indicators stays ahead of emissions growth.
  - ◊ **Sectoral physical emissions intensity** is the metric most clearly linked to real-world decarbonization.

◊ **Scope and coverage are flawed both in terms of:**

* ***Emissions coverage.*** *Most targets exclude scope 3 emissions despite their dominance in many high-emitting sectors, such as oil and gas, chemicals, and coal mining.[2] No targets have been set specifically for methane, despite the existence of methane-specific legislation and international agreements, and the significant opportunities to address warming in the short term through reducing methane emissions.*

* ***Asset class coverage.*** *Nearly three-quarters of targets lack disclosure on what percentage of assets under management (AUM) are covered. When disclosed, less than 50% of AUM on average are covered by the targets.*

Although the precise list of asset classes covered by targets is not always disclosed (especially for non-emissions targets), it is clear that asset coverage is uneven. Listed equities, bonds, and real estate are frequently covered, while private markets and infrastructure are largely overlooked, especially in emissions targets.

• **Non-emissions targets**

These are often based on vague metrics and heterogeneous methodologies:

◊ **Engagement targets** typically lack specificity on engagement themes or objectives.

◊ **Climate solutions investment targets** insufficiently define their scope (sometimes only citing green bonds or indeterminate sustainable assets without taxonomic clarity) or are based on a large array of methodologies, rendering them incomparable across investors.

◊ **Alignment targets** rely on opaque methodologies such as temperature scores or alignment categorizations that lack transparency and robustness, and thus may be prone to greenwashing.

A striking number of targets are reported to have been met well before their deadline, indicating weak initial design and level of ambition, given that global emissions have risen in recent years. Sixty percent of short-term (mostly 2025) and 15% of medium-term (mostly 2030) targets have already been achieved — sometimes several years ahead of the set target date.

A FRAGMENTED LANDSCAPE OF ALLIANCES AND FRAMEWORKS

The growth of investor climate targets is linked to the financial sector's net-zero alliances that emerged after the founding of the Net-Zero Asset Owner Alliance (NZAOA) in 2019. The setting of climate targets has been central to the guidance of these coalitions. Despite the collapse of some of the alliances and the weakening of the criteria of others, investors appear mostly to have kept their targets in place.

While the alliances spurred their members to set targets, they failed to provide clear guidance on how meaningful targets should be designed. The wide diversity of target types, methodologies, transparency, and ambition in investor targets can be explained in part by this failure. The NZAOA's Target-Setting Protocol (TSP) provides the most structured guidance. In contrast, the criteria from other alliances are vague and defer to other frameworks, such as the Net Zero Investment Framework (NZIF) from the Institutional Investors Group on Climate Change (IIGCC). The recent Financial Institutions Net-Zero Standard (FINZ) from the Science Based Targets initiative (SBTi) provides more stringent conditions for fossil fuel policies but lacks prescriptive requirements for target setting.

RECOMMENDATIONS

1. **Climate targets must be set as part of a broad, coherent, and ambitious climate strategy.** Climate targets must provide clear direction and quantify the objectives of a broader climate strategy aimed at decarbonizing the real economy, sometimes characterized by a commitment to achieving net zero. This requires targets to be integrated into a comprehensive and robust transition plan.[3] This plan must include a holistic and coherent view of all available levers for action, using a variety of targets for each, with a level of granularity sufficient to allow for a clear understanding of how the overall strategy is intended to achieve real-economy decarbonization.

2. **Emissions targets.**

   a. **Align with 1.5°C science-based scenarios.** Interim targets must be tied to credible 1.5°C pathways with no or limited overshoot. Carbon credits should not be included in interim targets. Carbon removals can only be used to offset residual emissions (less than 10% of baseline emissions, the baseline being set for 2020 at the earliest[4]) in achieving long-term (net-zero) commitments.

b. **Set sectoral emissions reduction targets, covering all material sectors.** Investors should set sector-specific targets covering all material economic sectors and at least 90% of the emissions across their portfolios.[5]

   For fossil fuel supply sectors (that must be phased out rather than decarbonized), investors should use investment volume reduction targets that cover all material asset classes and that aim to phase out investment in fossil fuel companies.

   For fossil fuel demand sectors (that must be decarbonized rather than phased out, e.g. transport, industrial sectors, agriculture, etc.), targets should be based on weighted average physical intensity (WAPI) metrics (physical emissions intensity, calculated as a weighted average of the intensities of investees).

   Investors should also monitor and disclose unattributed emissions (total emissions for investees without adjusting for corporate value or holding size) for each sector and asset class.

c. **Cover all material emission scopes and GHGs, and set methane-specific targets for high methane-emitting sectors.** Emission scopes and GHGs should be considered material if they represent more than 5% of the sector's total emissions. Investors should set specific methane emission targets for each of the high methane-emitting sectors (i.e. energy, agriculture, and waste management and disposal).

d. **Provide transparent and comprehensive reporting on methodologies and progress.** Investors should strive to be as transparent as possible in their target-setting methodologies and annual reporting. Investors must publish annual progress reports, including clear attribution analyses that explain changes in portfolio emissions. These analyses must inter alia differentiate between the impact of factors such as real-world emission reductions of investees, financial factors such as changes in corporate values, and portfolio alterations (e.g. new investments, reallocations, etc.). Investors should disclose any discrepancies, reliability, and quality concerns regarding emissions data.

3. Alignment targets.

a. Alignment targets should be based on transparent and clearly defined indicators. The choice of these indicators must be explicitly justified based on their contribution to achieving investee decarbonization. Terms used in portfolio coverage targets, such as "credible transition plans" and "science-based targets", must be clearly defined. Investors must be fully transparent regarding the methodology used to calculate alignment metrics (e.g. individual portfolio company targets and the regression models used should be disclosed for Implied Temperature Rise targets).

4. Engagement targets.

a. Stewardship goals must go beyond vague commitments. They should define counterparties, objectives, escalation steps, and serve as the key performance indicators (KPIs) underlying a robust engagement strategy.[6]

5. Climate solutions investment targets.

a. Eligibility for inclusion in climate solutions investment targets must align with established taxonomies, such as the EU Taxonomy for Sustainable Finance. Investors must exclude from their definitions of climate solutions all technologies that aim to extend the lifespan of fossil fuel assets (e.g. ammonia co-firing for coal-based power generation, blue hydrogen) and limit the share of those for which feasibility remains unproven (e.g. direct air capture (DAC)) to their maximum share in well-established scenarios.

b. Investors must calculate and disclose annually their ratio of financing for sustainable activities in the power sector versus that of fossil fuels. A target must be set for this ratio to reach 6:1 by 2030.[7] This energy supply financing ratio (ESFR), which is compatible with the International Energy Agency's (IEA) net-zero pathway, should be based on comprehensive, consistent, and transparent coverage of asset classes for both sides of the ratio.

CONCLUSION

Although the last decade has seen widespread adoption of climate targets by investors, the current quality and scope fall far short of what is needed to align with global climate goals. Weak definitions, limited coverage, opaque metrics, and premature "achievements" reveal a disconnect between reported investor ambition and real-world emission reductions. Investors must adopt sectoral, comprehensive, science-based targets; strengthen engagement and investment criteria; and ensure full transparency in disclosures. Without these improvements, investors not only risk accusations of greenwashing, but also a failure to act on their responsibility to act to keep warming under 1.5°C and so of their fiduciary responsibility to manage systemic climate risk and to safeguard long-term financial stability.

GLOSSARY

AM	Asset Manager
AO	Asset Owner
AR6	(IPCC's) Sixth Assessment Report
AUM	Asset Under Management
CAGR	Compound Annual Growth Rate
capex	Capital Expenditure
CBI	Climate Bonds Initiative
CFA	Chartered Financial Analyst
CO_2(e)	Carbon Dioxide (equivalent)
CRREM	Carbon Risk Real Estate Monitor
CSI	Climate Solutions Investment
DNB	De Nederlandsche Bank
ECOTS	Enterprise Value and Cash Weighted Temperature Score
EUT	European Union Taxonomy (for Sustainable Finance)
EVIC	Enterprise Value Including Cash
FF	Fossil Fuel
FINZ	Financial Institutions Net-Zero (Standard)
FIT	Forum for Insurance Transition (to Net Zero)
GFANZ	Glasgow Financial Alliance for Net Zero
GHG	Greenhouse Gas
IAE	Insurance-Associated Emissions
ICMA	International Capital Markets Association
IEA	International Energy Agency
IIGCC	Institutional Investors Group on Climate Change
IPCC	International Panel on Climate Change
ISSB	International Sustainability Standards Board
ITR	Implied Temperature Rise
LMA	Loan Market Association
LSTA	Loan Syndications and Trading Association
NET	Negative Emissions Technology
NGFS	Network for Greening the Financial System
NZ	Net Zero
NZAM	Net Zero Asset Managers initiative
NZAOA	Net-Zero Asset Owner Alliance
NZBA	Net-Zero Banking Alliance
NZIA	Net-Zero Insurance Alliance
NZIF	Net Zero Investment Framework
OECM	One Earth Climate Model
PAAO	Paris Aligned Asset Owners
PCAF	Partnership for Carbon Accounting Financials
PDRO	Portfolio Decarbonization Reference Objective
RMI	Rocky Mountain Institute
SBT	Science-Based Target
SBTi	Science Based Targets initiative
SCC	Substantial Contribution Criteria
SDA	Sectoral Decarbonization Approach
SFDR	Sustainable Finance Disclosure Regulation
SR1.5	IPCC Special Report on Global Warming of 1.5°C
TCFD	Task Force on Climate-related Financial Disclosures
TEG	Technical Expert Group (on sustainable finance)
TPI	Transition Pathway Initiative
TS	Temperature Score
TSC	Technical Screening Criteria
TSP	Target-Setting Protocol
UK TPT	United Kingdom Transition Plan Taskforce
UNEP FI	United Nations Environment Programme Finance Initiative
WACI	Weighted Average Carbon Intensity
WAPI	Weighted Average Physical Intensity
YE	Year End

METHODOLOGY

How many investors and which types of investors were included in the analysis?

A total of 83 investors were included in the analysis (31 asset managers, 27 insurers, 21 pension funds, and five sovereign wealth funds), selected according to criteria including their size and influence on global climate investing trends. The full list of investors and key target parameters can be downloaded from our website: reclaimfinance.org. The sample covers European, North American, and Asian investors to achieve a geographic and investor type balance.

Which documents were analyzed?

All public disclosures by investors related to climate commitments were analyzed, including annual reports, sustainability statements, TCFD reports, climate reports, sustainability reports, PRI progress reports, webpages, and press releases.

Were investors consulted?

All investors were contacted to confirm their target data (or lack thereof). Clarification questions were asked. Investors were given three weeks to answer questions. The resulting feedback was integrated into the analysis.

A total of 30 investors acknowledged receipt of the request for clarification, of which 22 investors provided detailed feedback and answers to the questions, and two refrained from commenting.

Which target types and variables were analyzed?

This report analyses all targets for which both a target quantity or reduction rate and a target date were defined. This includes: (i) emissions targets (expressed in reduction of absolute emissions, physical emissions intensity, or economic emissions intensity); (ii) engagement targets; (iii) alignment targets; and (iv) climate solutions investment targets.

The analyzed variables include:

- Percentage of assets under management included in the target.
- Sectors and asset classes included in the target.
- Geographical and organizational scope.
- Emission scopes coverage (if relevant).
- Metric type and unit.
- Baseline, target year, and quantity, plus reduction rate (if relevant).
- Progress for the target metric.
- Methodology and benchmark scenario.
- Portfolio aggregation formula.

01

INTRODUCTION: WEAK ALLIANCES AND NON-BINDING FRAMEWORKS

How weak industry guidelines led to vague and opaque investor commitments

Over the past six years, hundreds of asset managers, pension funds, insurance companies, and other investors have set various types of climate targets. Most of these investors are members of one or more sectoral net-zero alliances and have supposedly committed to aligning their activities to a global net-zero economy by 2050. The alliances encourage members to achieve this alignment by setting various types of targets for decarbonizing their portfolios.

These alliances have had limited and mixed impacts on their members' practices. The Net-Zero Asset Owner Alliance (NZAOA) stands out for its detailed guidance on target setting and the other actions to which its members have committed. The other two main investor alliances — the Net Zero Asset Managers initiative (NZAM) and the Paris Aligned Asset Owners (PAAO) — have issued almost no guidelines of their own, instead relying primarily on third-party frameworks.

These alliances have experienced turbulence over the past two years, caused by a global anti-ESG backlash from the far right and the

Table 2: Main elements of investor net-zero alliances

Metric type	Net Zero Asset Managers initiative (NZAM)	Net-Zero Asset Owner Alliance (NZAOA)	Net-Zero Insurance Alliance (NZIA) / Forum for Insurance Transition to Net Zero (FIT)	Paris Aligned Asset Owners (PAAO)
Launch date	December 2020	September 2019	July 2021 (NZIA) / April 2024 (FIT)	March 2021
Guidelines	NZAM guidelines are brief and imprecise.[8] They refer to the NZAOA's Target-Setting Protocol (TSP), the IIGCC's Net Zero Investing Framework (NZIF),[9] and the SBTi. The original guidelines are to be replaced by a new document in January 2026.	NZAOA Target-Setting Protocol, Fourth edition (TSP)[10]	FIT guidance on transition plans[11]; no longer binding targets.	The PAAO commitment statement[13] requires signatories to be consistent with the fiduciary obligation of "[t]ransitioning [...] investments to achieve net zero portfolio GHG emissions by 2050, or sooner" by "drawing on" the Net Zero Investment Framework.
Members and assets under management (AUM)	>300 members and US$60 trillion AUM at peak.	>80 members managing over US$10 trillion.	NZIA had eight founders (AXA, Allianz, Aviva, Generali, Munich Re, SCOR, Swiss Re, and Zurich Insurance) and up to 29 members in 2023; FIT currently has 23 participants.	57 asset owners and ~US$3.3 trillion AUM.
Recent developments	Several major North American asset managers left the alliance, including Vanguard in 2022 and BlackRock in 2024. NZAM activities were suspended in January 2025. It is to be relaunched in January 2026.	The NZAOA is the only alliance to maintain an unchanged position in 2025.	Following a wave of departures in 2023, the NZIA was discontinued in April 2024. It has been replaced by the Forum for Insurance Transition to Net Zero (FIT) under the Finance Initiative of the United Nations Environment Programme.	

re-election of Donald Trump. Waves of departures led to the discontinuation of the Net-Zero Insurance Alliance (NZIA) in 2023 and the suspension of NZAM in January 2025. NZAM is to be relaunched in January 2026 without the requirement for its members to commit to net zero by 2050.[12]

A. ROLES AND TYPES OF INVESTORS

Investors play a pivotal role in the financial sector, acting as allocators of capital and stewards of long-term value. By directing trillions in equity and debt investments, they influence the cost of capital and the strategic decisions of companies across the economy. Specifically, investors can contribute to the decarbonization of the non-financial "real economy" in several ways, including reallocating capital away from high-emitting companies and toward low-carbon technologies and firms, and engaging with companies to promote credible transition plans, emissions reduction targets, and enhanced climate governance. Additionally, investors can influence markets and policy by participating in climate-related coalitions, supporting disclosure initiatives, practicing climate-positive lobbying with industry associations and public decision-makers, and advocating for regulation that promotes transition finance. Their decisions shape both the supply of and demand for capital, making investors essential actors in accelerating the systemic shift needed to meet global climate goals.

While asset owners set long-term objectives and investment policies for their assets, and asset managers are typically tasked with executing on their mandates from asset owners, managers — especially those with discretionary mandates — should also strive to integrate climate targets into their investment decisions. Fiduciary duty is increasingly understood to include climate action, since managing climate risks and aligning with sustainability goals is integral to protecting beneficiaries' long-term interests. Even under advisory mandates, asset managers should actively inform and engage asset owners on climate-related risks and opportunities. And when asset owners control asset manager subsidiaries, they can shape a group's overarching climate strategy, even if they cannot directly impose objectives on third-party funds managed for other clients. While asset managers must reflect on the mandates and fiduciary duties owed to those external asset owners, they should, at a minimum, scrutinize the mandates and funds managed by their subsidiaries.

B. TARGET SETTING FOR INVESTORS

Over the past decade, investors have increasingly adopted targets related to portfolio decarbonization, climate alignment, and engagement in order to manage climate-related financial risks and contribute to the low-carbon transition. Climate targets come in a range of different types and use a variety of metrics. The key types are:

- **Emissions targets.** These aim to reduce emissions linked to managed and/or owned assets. They can be expressed in various metrics:
  - ◊ **Physical emissions intensity.** Expressed as a ratio between emissions and (usually sectoral) output (e.g. gCO_2e/kWh of electricity, tCO_2e/t of cement). They can be calculated as a weighted average sum of the physical emissions intensities of investees, or as a ratio between absolute financed emissions and "financed output" (see Appendix 1: Emissions metric formulas).
  - ◊ **Absolute emissions.** These are absolute financed emissions (linked to investments) or insurance-associated emissions as defined by the Partnership for Carbon Accounting Financials (PCAF).
  - ◊ **Economic emissions intensity.** These are defined by the Task Force on Climate-related Financial Disclosures (TCFD):
    - * *Weighted average carbon intensity (WACI), expressed in emissions per unit of an investee's revenue.*
    - * *Carbon footprint, expressed in emissions per unit of investment.*
- **Climate solutions investment targets.** These are expressed as investments directed to a predefined scope of climate solutions (e.g. EU Taxonomy "Substantial Contribution Criteria" (SCC)). They can be expressed in absolute amounts (e.g. billions of dollars) or relative terms (e.g. percentage of AUM).
- **Engagement targets.** These targets involve active stewardship and setting goals for influencing investee behavior or disclosure of portfolio companies. They are expressed as the number of investee companies to be engaged (sometimes with precision on the themes for engagement).
- **Alignment targets.** These targets aim to shift capital toward issuers or assets consistent with a 1.5°C-aligned pathway. They are usually expressed in relative terms (e.g. percentage of AUM or percentage of financed emissions aligned with a set of conditions, such as commitments to adopting science-based targets) or using portfolio temperature scores ("implied temperature rating") and alignment scores (i.e. deviation from a sectoral benchmark, e.g. Carbon Risk Real Estate Monitor (CRREM) pathways).

Global guidance to investors on climate issues has undergone significant evolution over the past decade. Early initiatives, like the TCFD, focused on climate disclosure. The NZAOA and NZAM formalized target-setting practices to a certain extent. Regulators have pushed for transparency and credibility (e.g. the EU Sustainable Finance Disclosure Regulation (SFDR), UK Transition Plan Taskforce (TPT) Disclosure Framework). Simultaneously, standard-setters such as the International Sustainability Standards Board (ISSB) and, to a lesser extent, the Glasgow Financial Alliance for Net Zero (GFANZ), have developed methodologies. Yet, despite progress, serious challenges persist around data reliability, target designs, and, in particular, links to real-world emission reductions.

C. EXISTING TARGET-SETTING FRAMEWORKS FOR INVESTORS

We explain below the requirements and key features of the most influential target-setting frameworks. Although some frameworks are technically detailed (especially the NZAOA TSP and the IIGCC NZIF), they remain non-prescriptive and often vague on key questions. All frameworks allude to a final net-zero objective or a 1.5°C with no/low overshoot pathway, but they allow investors to set targets based on opaque methodologies that are impossible to compare and ultimately cannot be linked to the objective of alignment with a 1.5°C pathway.

NZAOA Target-Setting Protocol (TSP)

Among the net-zero alliances, the NZAOA provides the most detailed guidance for investors to align their portfolios with a 1.5°C pathway. Its guidelines are outlined in the evolving TSP (the fourth edition was released in 2024). At the core of the NZAOA's approach is a requirement for members to set interim targets every five years, covering a minimum percentage of their portfolio and applying to key asset classes, including listed equity, corporate bonds, infrastructure, and real estate. These targets must be science-based, align with 1.5°C scenarios (e.g. from the International Panel on Climate Change (IPCC) or the International Energy Agency (IEA)) with no or limited overshoot, and reflect reductions in both absolute emissions and emissions intensity. The protocol prescribes target types across four categories — sub-portfolio emissions targets, sector targets, climate investment solutions targets, and engagement targets. Investors must set engagement targets and then at least two of the remaining three types of targets.

Overall, the NZAOA TSP is not very prescriptive. The wording "shall" is used to designate that "a process is binding for the purpose of the Alliance but remains subject to the unilateral decision of the concerned member."

The TSP lays out five "minimum requirements" that members shall implement:

1. Setting intermediate individual targets within 12 months of joining.
2. Publishing intermediate individual targets.
3. Disclosing annually and publicly on progress towards intermediate individual targets, including on investment portfolio emissions profiles and emission reductions.
4. Reporting intermediate individual targets and annually reporting on progress towards intermediate individual targets, via the internal NZAOA reporting template for both aggregation and publication in its progress report.
5. Considering adopting and publishing (when applicable) individual investment policies or approaches to align with the NZAOA's positions within 12 months of joining or within 12 months of the publication of a new position.

IIGCC Net Zero Investment Framework (NZIF)

The Institutional Investors Group on Climate Change (IIGCC) released the second version of its NZIF in 2024. The NZIF 2.0 structures climate target setting and implementation across six interlinked components:

1. Governance and strategy.
2. Objectives and targets.
3. Strategic asset allocation.
4. Asset level alignment.
5. Policy advocacy.
6. Stakeholder and market engagement.

The NZIF differentiates between emissions targets, which aim to reduce portfolio emissions, and alignment targets, which assess the transition readiness of issuers and assets.

The framework allows for portfolio-level metrics (e.g. WACI, financed emissions, Implied Temperature Rise (ITR) scores) and issuer-level metrics (e.g. alignment classifications). It also includes guidance tailored to each major asset class (listed equity, corporate fixed-income, sovereign bonds, real estate, infrastructure, and private markets) for asset-level assessment and target setting.

NZAM Commitment

The brief Net Zero Asset Managers Commitment has influenced the targets set by hundreds of asset managers since 2021. A new, weaker version of the commitment is to be issued in January 2026. The original required signatories to work with asset owner clients to align their portfolios with net zero by 2050 or sooner. The upcoming version will remove this requirement.

Under the 2021 commitment, members are to set interim targets, updated at least every five years, for the proportion of AUM that will be "managed in line with the attainment of net zero emissions by 2050 or sooner." Signatories are also expected to implement stewardship and engagement strategies aimed at accelerating decarbonization in the real economy, disclose the target-setting methodologies used (including scenarios and metrics), and annually report progress through the initiative's transparency framework.

SBTi Financial Institutions Net-Zero Standard (FINZ)

The FINZ Standard addresses financed emissions, which are accounted for under scope 3, category 15 of the GHG Protocol. It covers all types of financial institutions and financial services. By submitting targets for validation to the SBTi using the FINZ Standard, financial institutions must make a public commitment to achieve net zero by no later than 2050. Financial institutions submitting targets to the SBTi for validation under this standard must abide by all its requirements, which is significantly stronger than the other frameworks. The standard also stands out for its criteria on asset coverage and sectoral policies.

Forum for Insurance Transition to Net Zero (FIT)

Under the umbrella of the UNEP FI, the FIT seeks to provide a voluntary and non-binding platform for insurers to advance climate action. Its guidance focuses heavily on decarbonization planning and target setting, particularly within insurers' underwriting portfolios, which tend to be tackled less than investment portfolios by net-zero frameworks. The FIT does not impose any requirements, and only puts forward principles-based guidance for insurers to develop credible transition plans and to set science-based targets aligned with a 1.5°C pathway, covering the climate impact of underwriting activities.

Table 3: Comparison of the NZAOA TSP 4th edition, IIGCC NZIF 2.0, and SBTi FINZ

Topic	Comparison
Asset class coverage	**All frameworks include a similar list of asset classes, with a more granular categorization in the TSP, and a different segmentation in the FINZ. While engagement and climate solutions investment targets seem to cover all asset classes, for emissions reduction targets (sub-portfolio) the asset classes are phased in, introducing a divergence in accounting.**
Emissions source coverage	**Both the TSP and NZIF only prescribe the inclusion of investees' scope 1 and 2 emissions, and both highlight data challenges related to scope 3 emissions accounting. The FINZ requires that scope 3 emissions from portfolio counterparties be included for key sectors (automotive, coal, oil and gas, and real estate).** The TSP argues that "corporate data on scope 3 emissions range from somewhat unreliable to highly unreliable, and several data providers estimate scope 3 emissions with a wide range of outcomes" and, therefore, scope 3 emissions should only be included when "interpretation of these emissions in a portfolio context becomes clearer and data become more reliable."
Baseline	**Both the TSP and NZIF refer to year end (YE) 2019 as a baseline, while the SBTi FINZ precludes choosing a base year earlier than 2020; the target-setting cycle in the TSP follows the Paris Agreement's five-year cycles.**
Target and metric types	**The TSP is more prescriptive than the NZIF, but both give a lot of leeway regarding target implementation. The FINZ recommends different methodologies for near-term interim targets and imposes metrics for long-term targets depending on the sector or segment. This standard also goes beyond target setting by imposing the publication of policies. It does not require a sustainable financing target.** • Both the TSP and NZIF are equally vague regarding the definition of "climate solutions," only referring to "generally acknowledged climate-related frameworks" (International Capital Market Association (ICMA), Loan Market Association (LMA)/Loan Syndications and Trading Association (LSTA), Climate Bonds Initiative (CBI), etc.) and local taxonomies. They also refer to the same metrics (green revenues and green capex at the portfolio and/or fund levels). The FINZ also refers to a list of eligible third-party frameworks and taxonomies, with specifics for some of them. • Many NZAOA members covered by our research do not appear to have complied with the requirement to set engagement targets and at least two of the three other target types. • SBTi Portfolio Coverage and Climate Alignment targets are close to the NZIF Asset Alignment target, and the TSP refers to the SBTi Sectoral Decarbonization Approach (SDA).
Scenario and ambition	**All frameworks refer to 1.5°C-aligned with no/low overshoot scenarios, citing IPCC AR6 and SR1.5 reports as well as the One Earth Climate Model and the IEA's net-zero emissions scenarios. However, neither is stringent regarding the volumes of negative emissions technologies (NETs) in the chosen scenario (e.g. 687 $GtCO_2e$ of carbon capture and storage (CCS) by 2100 in the IPCC's AR6 Pathway 3, which is permitted by the NZIF).**
Carbon removals and offsets	**The FINZ and TSP are more restrictive than the NZIF on the inclusion of carbon removals and/or credits in meeting targets. The FINZ forbids the inclusion of any carbon removals, credits, or avoided emissions. The TSP restricts investee companies' use of removals (but it is unclear how this "transfers" to investors). The NZIF allows for the use of offsets "where there is no technologically or financially viable solution."**

Topic	Comparison
Engagement	**Both the TSP and NZIF list generic channels** (policy advocacy, market engagement, stewardship, external fund manager engagement) **and goals** ("consistent with," "achieve net zero," "long-term climate interests") **for engagement, but fail to define clearly both the objectives and the means** (examples of escalation actions are mentioned, without clear guidelines). Both frameworks refer to additional separate guidance documents. **Engagement targets are based on vaguely worded metrics (e.g. "aligned with net zero or under direct or collective engagement and stewardship actions" (NZIF)).** **The FINZ refers to engagement as an important part of financial institution strategy but does not mention specific engagement targets.**
Reporting and transparency	**The FINZ and TSP are more prescriptive than the NZIF regarding reporting, with a more precise list of indicators to report on. All frameworks emphasize the importance of reporting progress, gross emissions, drivers of change in target metrics, methodological changes, and re-baselining. None give a precise reporting framework.**
Data gaps and adjustments	**To a certain extent, both the TSP and NZIF seem to acknowledge data limitations as a reason to exonerate (partially) investors from reporting or setting a target. The NZIF specifically recommends that investors engage both companies and data vendors. The FINZ prescribes that financial institutions disclose all data sources and data quality scores, recognizing that GHG inventory comprehensiveness and quality should improve over time, even if coverage rates remain fixed for near-term and long-term targets.** **The NZIF offers more detailed solutions than the others on how to deal with the volatility of the financial components in target metrics.**

02

KEY WEAKNESSES IN INVESTOR TARGETS

A heterogeneous set of opaque commitments

A. GENERAL OBSERVATIONS ON THE SAMPLE

Number of targets

Of the **83 entities analyzed**, a total of **297 targets were identified**, i.e. an **average of more than three targets per investor**.

Among the 83 investors:

- **18 (22%) have no targets.**
- 48 (58%) have five targets or less.
- 17 (20%) have more than five targets.

Considering that multiple targets are needed for a comprehensive climate transition plan, it is concerning that only **20% of the investors** in the sample have more than five targets, and **more than a fifth have none.** Targets need to cover inter alia decarbonization, alignment, engagement, and investment in climate solutions, as well as the short, medium, and long terms, and different economic sectors, asset classes, and gases.

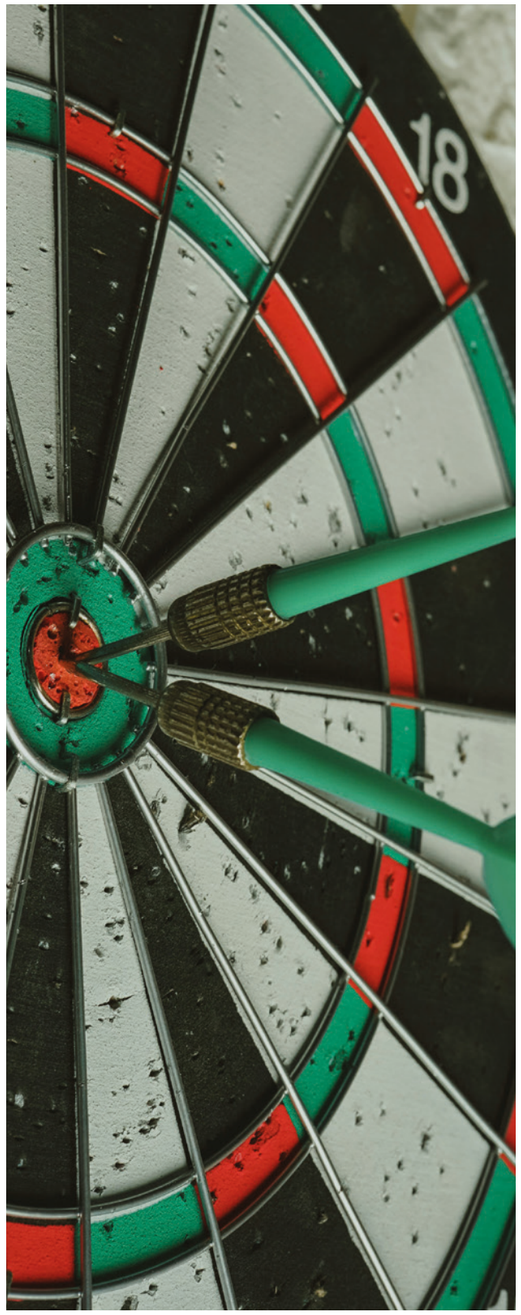
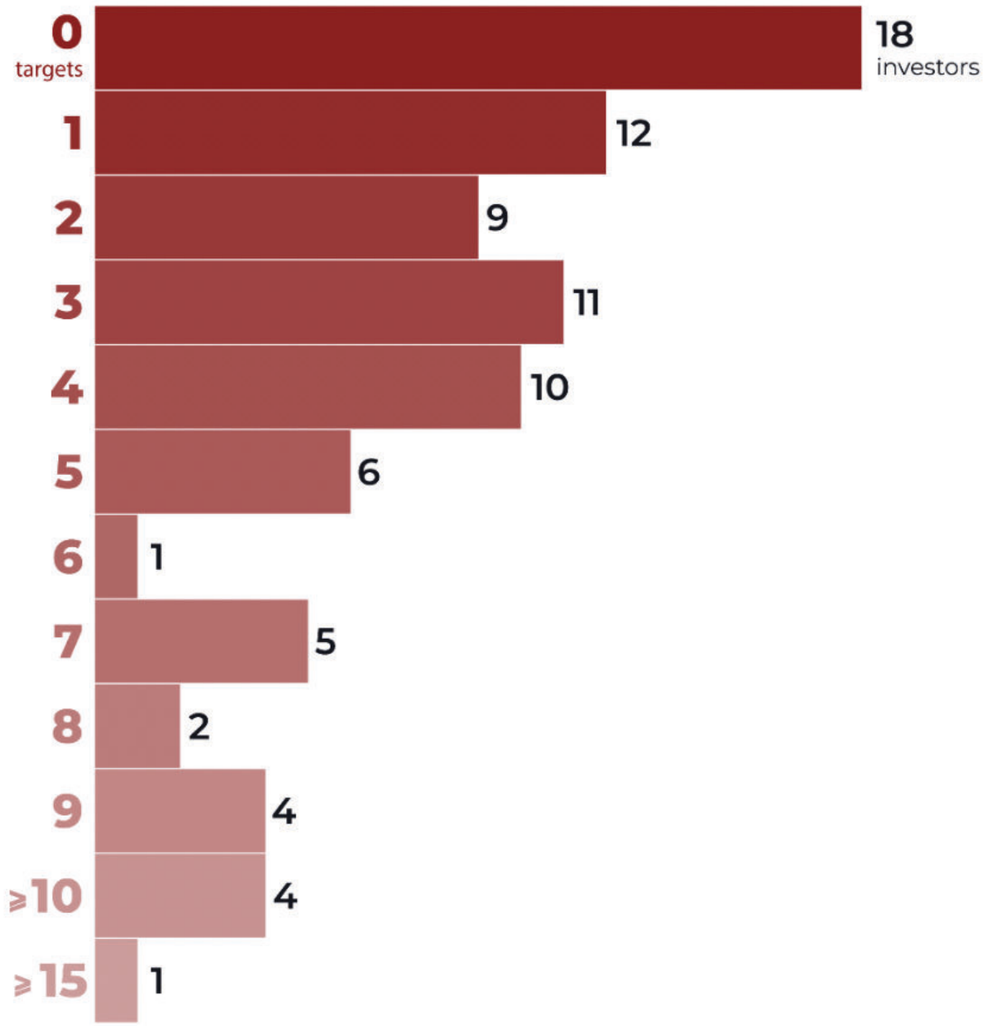


Figure 1: Distribution of investors per number of targets

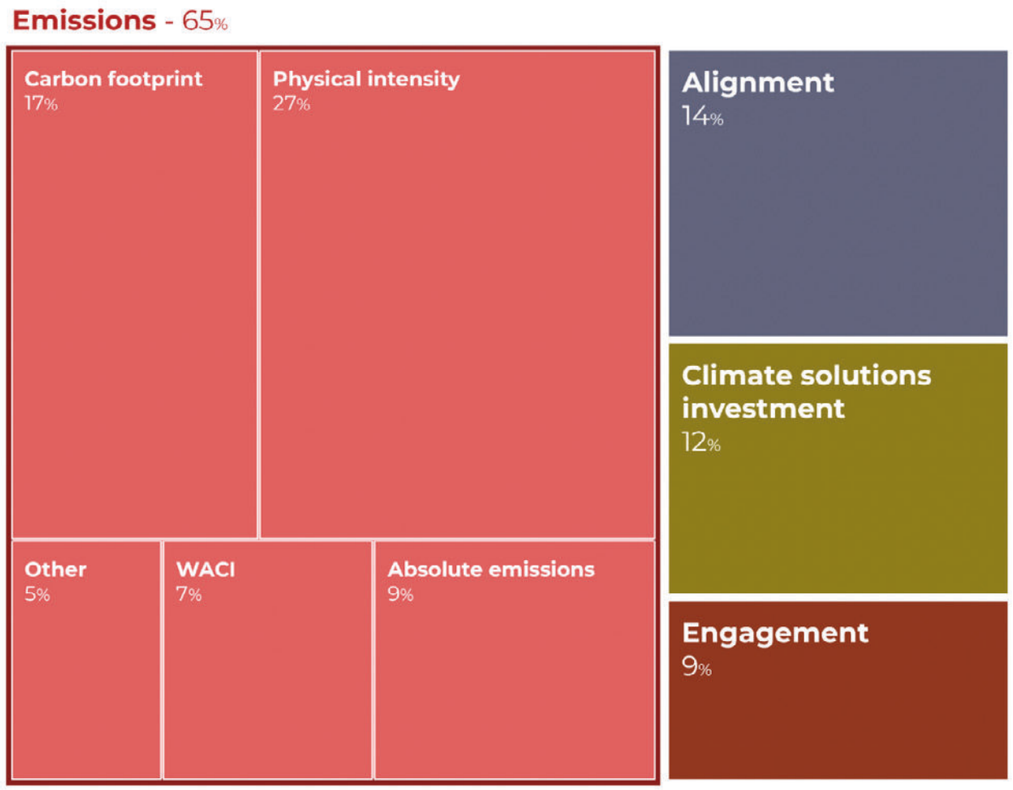


Target and metric types

The most common targets are emissions targets (65%), followed by alignment targets (14%), climate solutions investment targets (12%), and engagement targets (9%).

Emissions targets are primarily expressed in physical intensity (almost 40% of which relate to the real estate sector/asset class), carbon footprint (economic emissions intensity per unit of investment), absolute financed emissions (as defined by PCAF), WACI, or other metrics (e.g. insurance-associated emissions).

Figure 2: Distribution of target and metric types

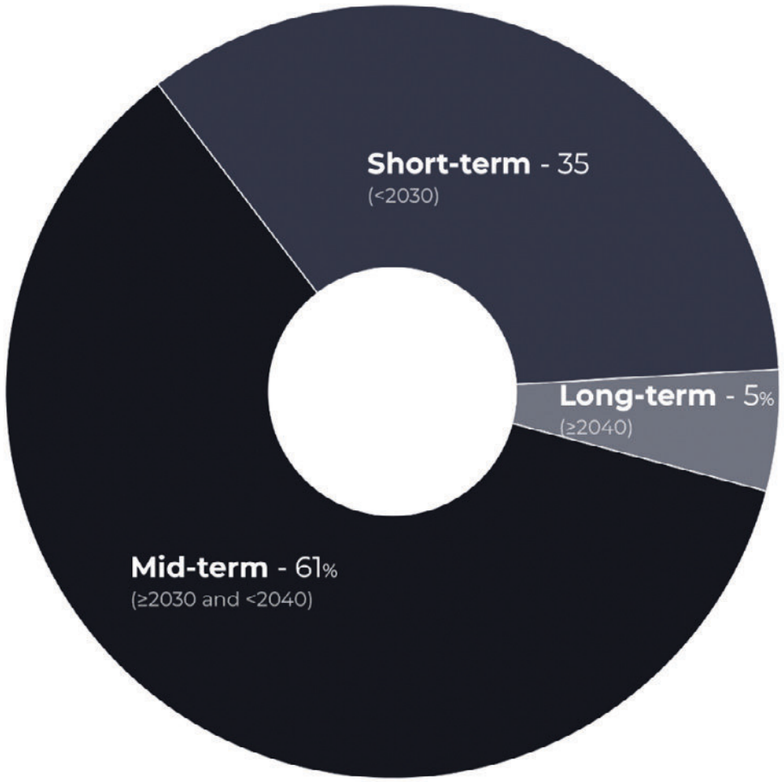


Baseline and target years

Baseline years range from 2011 to 2024. The most common baseline year is 2019.

Nearly 60% of targets are set for 2030. Five investors have not set targets for later than 2025, and effectively no longer have targets. Long-term targets (after 2040) almost exclusively relate to net-zero or carbon neutrality claims for specific asset classes or funds.

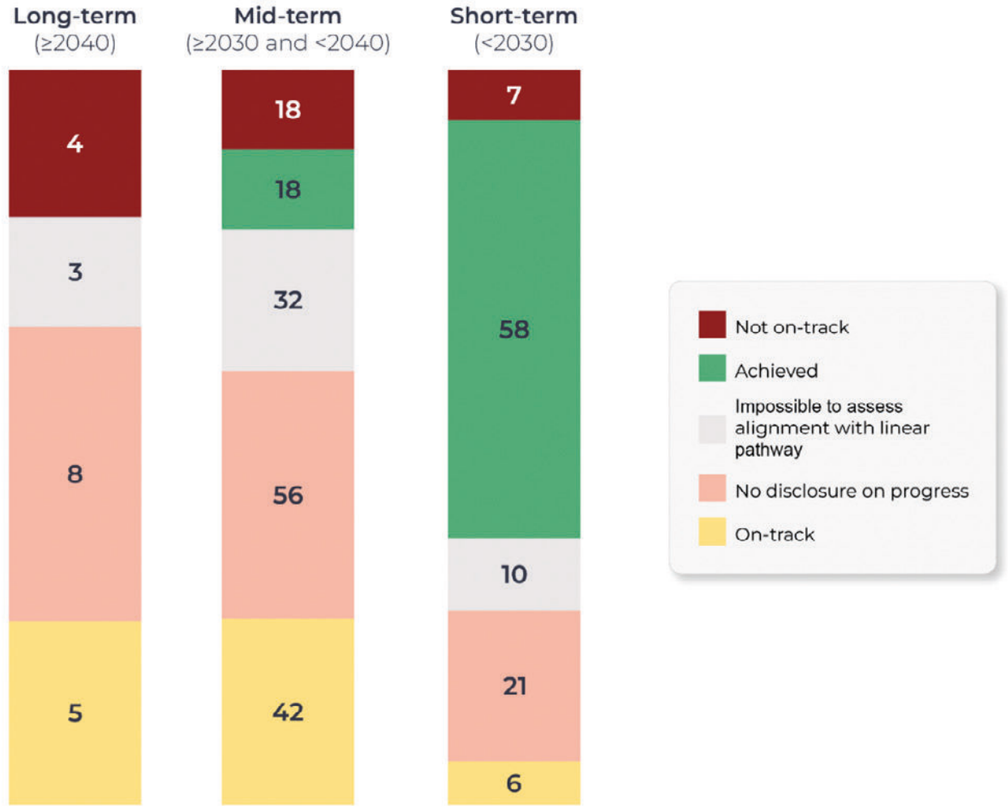
Figure 3: Distribution of target dates



Disclosure of progress and achievement

Nearly 60% of short-term (target year before 2029) and 11% of medium-term (target year after 2030 and before 2040) targets are reportedly already met. Progress cannot be evaluated for almost a third of short-term targets and more than half of medium-term targets due to a lack of reporting. About 10% of targets are not on track compared to a linear regression pathway. The high percentage of claims that targets have been met long before their target year suggests that the original goals lacked ambition. It also implies a weak link between target achievement and real-world emission reductions, given that global emissions have risen in recent years.

Figure 4: Distribution of targets per achievement status



B. TARGET AND METRIC TYPES

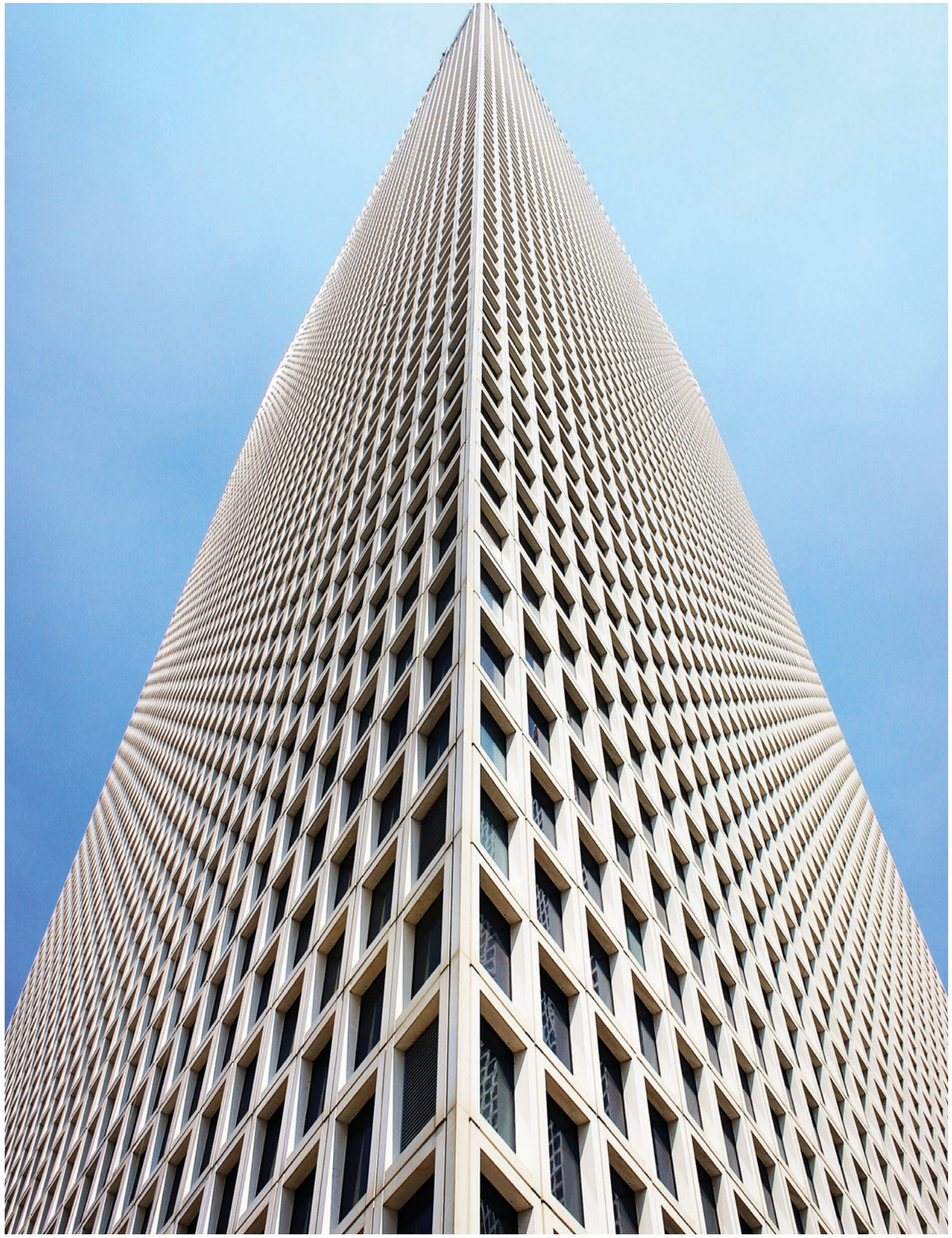
Emissions targets

The most common emissions targets are:

1. Physical emissions intensity.
2. Targets using financial variables:
   a. absolute financed emissions
   b. carbon footprint
   c. WACI
   d. other emissions targets (e.g. insurance-associated emissions).

- **<u>Physical emissions intensity</u>**

Twenty-five investors have set emissions targets based on physical emissions intensity, almost all for the real estate and power generation sectors. Only four investors (Allianz, CalPERS, Danica Pension Fund, Mn Services) have set physical emissions intensity targets for other sectors. Sectoral targets explain why some investors have a high number of targets. For instance, CalPERS has set sectoral targets for 10 different sectors, both for 2025 and 2030, based on the Transition Pathway Initiative (TPI) benchmark. Thirty (38%) of physical emissions intensity targets are in the real estate sector (emissions per m^2). Most real estate targets are explicitly benchmarked against



the 1.5°C pathway from the Carbon Risk Real Estate Monitor (CRREM), while most other sectoral targets follow the TPI methodology.

For physical emissions intensity targets, reduction rates average 24% in the short term and 39% in the medium term, with a 6% average compound annual reduction rate.

Achievement rates for these targets are 43% for short-term targets (mostly 2025) and 12% for medium-term targets (mostly 2030). For more than half of the physical emissions intensity targets, there is no data or insufficient data to assess progress. For instance, CalPERS (i) does not disclose baseline year, baseline quantity, or reduction rate; and (ii) does not seem to track, or at least does not disclose publicly, progress on meeting these targets.

- **<u>Targets using financial variables</u>**

1. Absolute financed emissions

Fifteen investors have set emissions targets based on absolute financed emissions (as defined by PCAF).

Almost all absolute financed emissions targets include only listed equity and corporate bond asset classes, with one target also including infrastructure finance, seven including real estate, and five in-

cluding other sectors (e.g. Munich Re has set four different absolute emissions targets for the oil and gas and thermal coal sectors).

For absolute financed emissions targets, reduction rates average 26% in the short term (target end dates between 2025 and 2029) and 48% in the medium term (2030).

Absolute financed emissions targets display a high achievement rate (58% for short-term and 9% for medium-term targets). It is impossible to assess progress for 32% of targets. As for other target types, **the high early achievement rate brings into question both the ambition and design of the targets.**

2. Carbon footprint (economic emissions intensity per unit of investment)

Twenty-eight investors have set emissions targets based on carbon footprint.

Almost all these targets cover only listed equity and corporate bond asset classes, with five targets also including infrastructure finance. Eight carbon footprint targets cover real estate, and seven other sectors.[14]

For carbon footprint targets, reduction rates average 26% in the short term and 50% in the medium term.

Carbon footprint targets display a high achievement rate (100% for short-term and 14% for medium-term targets). Another 44% of medium-term targets are deemed on track. It is impossible to assess progress for 26% of targets.

◊ Weighted average carbon intensity (WACI)

Fifteen investors have set emissions targets based on WACI (economic emissions intensity per unit of investee revenue).

Almost all WACI targets include only the listed equity and corporate bond asset classes, with one target also including infrastructure finance, and one including real estate. Reduction rates average 26% in the short term and 51% in the medium term.

WACI targets display a high achievement rate (88% for short-term and 25% for medium-term targets). Another 58% of medium-term targets (and all longer-term commitments) are deemed on track. It is impossible to assess progress for 10% of targets.

Targets with financial components are only weakly correlated with actual emissions. As a result, assessing their ambition based solely on the analysis of reduction percentages is impossible, as these cannot be benchmarked against IPCC targets, contrary to what investors and alliances claim.

The annual volatility of financial indicators, such as corporate value, can be mitigated by using multi-year averages; however, this is only the case for one target.[15] Economic growth and inflation mean that financial values tend to rise over time, which will reduce "financed emissions" (as well as WACI, with company revenues outpacing emissions) even if real-world emissions remain constant or rise at rates lower than corporate value. One target[16] is adjusted for inflation, which partly mitigates this problem.

PCAF has correctly explained the usefulness of comprehensive attribution analyses that explain the factors that determine changes over time in economic-based metrics.[17] Only five investors[18] disclose a form of attribution analysis — both backward-looking to explain the factors that have caused reported changes in emissions-based metrics, and forward-looking to assess the weight of these factors in meeting targets.

Table 4: Average reduction rates, achievement rates per emissions target type

		Physical intensity	Carbon footprint	Absolute financed emissions	WACI
Percentage of total targets		28%	16%	10%	**6%**
Number of investors		24	27	15	14
Average reduction rate	Total	35%	46%	45%	43%
	Short-term	24%	26%	29%	27%
	Medium-term	39%	49%	46%	51%
	Long-term*	99%	99%	99%	88%
Average CAGR	Total	6%	7%	7%	6%
% of targets achieved	Total	24%	33%	44%	39%
	Short-term	41%	100%	79%	57%
	Medium-term	16%	12%	11%	30%
	Long-term	0%	0%	0%	0%

** An arbitrary reduction rate of 99% has been decided to translate the sub-portfolio net-zero or carbon neutrality targets*

		Physical intensity	Carbon footprint	Absolute financed emissions	WACI
% of targets on track	Total	12%	37%	19%	33%
	Short-term	11%	0%	7%	0%
	Medium-term	12%	48%	22%	50%
	Long-term	0%	50%	50%	100%
% of targets not on track	Total	10%	2%	11%	0%
	Short-term	7%	0%	0%	0%
	Medium-term	12%	3%	33%	0%
	Long-term	0%	0%	0%	0%
% of targets with no disclosure / for which alignment with a linear progress is impossible to assess	Total	54%	28%	26%	28%
	Short-term	41%	0%	14%	43%
	Medium-term	60%	36%	33%	20%
	Long-term	100%	50%	50%	0%

BOX 1: ECONOMIC EMISSIONS INTENSITY METRICS ARE ONLY WEAKLY LINKED TO REAL-WORLD EMISSIONS

Reclaim Finance's September 2024 report on the emissions targets of banks highlighted that PCAF's absolute financed emissions metric is not appropriate for target setting.[19] The use of an attribution factor that incorporates corporate value in its denominator (enterprise value including cash (EVIC) in the case of listed companies) introduces a component with significant inter-annual volatility that is independent of emission changes, and which will tend to push financed emissions down over time as corporate values increase.

This observation is also true for investor emission targets that use PCAF and other financial indicator-based metrics. Absolute financed emissions, absolute insurance-associated emissions, carbon footprint or economic emissions intensity, and WACI all use volatile indicators based on investee financial performance. The weak link between these indicators and real-world emission reductions has been highlighted by numerous analysts:

- The CFA Institute shows in two briefs how inflation and exchange rate fluctuations impact WACI[W] and how market volatility can distort carbon metric comparisons over time, "complicat[ing] medium-term target setting, and creat[ing] additional reporting challenges because financial institutions must repeatedly explain these fluctuations."[21] The articles demonstrate that these fluctuations can result in a "'non-real' greening effect," i.e. emissions metrics diminishing without any changes in the portfolio allocation or the carbon performance of investees. The document also notes the inverse effects of market price fluctuations on absolute emissions for fixed-income and equity investors.
- A blog post by the French National Bank investigates the factors behind the variations of carbon footprint and WACI emissions metrics at French equity funds between 2017 and 2022.[22] The analysis shows a steep decline in these over the period and reveals that this is mainly linked to an inflationary context and portfolio reallocations, and only weakly to falling corporate emissions. It emphasizes the need for the financial sector to "focus on reducing absolute emissions in the economy," and for asset managers to "put in place rigorous transition plans, invest in activities that are aligned or aligning with the transition and define a clear divestment strategy to encourage companies to act."

- Aberdeen Investments estimates that investors may "misinterpret changes in carbon metrics for real-world impact" and thus fail to manage portfolio decarbonization effectively if market volatility leads to major fluctuations in carbon metrics, particularly EVIC-based metrics.[23]
- A study by the Dutch Central Bank (DNB) compared the change in reported WACI with that of WACI adjusted for inflation and the exchange rate fluctuations of Dutch pension funds and insurance companies between 2012 and 2019.[24] The authors proceed to a two-step adjustment: (i) deflating 2019 USD to their 2012 equivalent using the Consumer Price Index; and (ii) converting 2012 USD to 2012 EUR using the constant 2012 spot market exchange rate. The study found a "non-real greening" effect of up to more than 10 percentage points between changes in reported and adjusted WACI over the period.
- The NZIF recognizes that "EVIC and revenue can be affected by market volatility, tying the portfolio emissions metrics above to non-emissions-related factors, such as inflation, exchange rates, and interest rates" and that "the financed emissions profiles of assets and portfolios can change without emissions increasing or decreasing due to changes in the financial denominator (EVIC and revenue)," meaning that "investors can make progress towards the portfolio decarbonisation reference objective without achieving real economy emissions reductions."[25] NZIF also admits that "another complication is that revenue and EVIC can move in opposite directions, resulting in WACI and economic emissions intensity also moving in opposite directions."

The CFA Institute, Aberdeen Investments, and DNB recommend using adjusters to correct for volatility in financial variables. NZIF also suggests solutions for adjusting WACI and carbon footprint (see Appendix 3). All three also highlight the need for (i) reporting all emissions metrics (absolute emissions, carbon footprint, WACI, and even physical emissions intensity) to give a comprehensive overview; (ii) disaggregating metrics to the maximum (sector-, asset class-, and geography-wise); and (iii) conducting attribution analyses to separate the effects of different factors in the evolution of metrics.

Ultimately, emissions targets should depend only on factors directly linked to the portfolio allocation strategies of investors and the carbon performance of investees, and on the outcome of investors' efforts to promote the decarbonization of the real economy through financing, engagement strategies, and voting policies.

Alignment targets

- A total of 40 alignment targets (14%; 23 investors) were found in the sample.
- About half of the alignment targets are based on the share of AUM to be aligned to a certain parameter.
- Around 40% of alignment targets are based on the NZIF alignment categorization system (see Box 2), usually using an aggregate indicator that encompasses "aligning to a Net Zero (NZ) pathway," "aligned to a NZ pathway," and "achieving NZ." Approximately 27% are based on Temperature Scores (TS) or Implied Temperature Rise (ITR), which fall at the border between alignment and decarbonization, and primarily follow the SBTi (and MSCI) methodologies. Another 25% are portfolio coverage targets (PCTs), based on companies with (1.5°C-aligned) SBTi-validated targets, just "science-based targets" (SBTs), or, in one instance, on "credible transition plans (TPs)." However, neither SBTs nor credible TPs are clearly defined. Two investors have only one alignment target based on the NZAM Commitment, which is merely an ambition to increase the share of AUM «managed in line with net zero» (the latter not being clearly defined).

Alignment targets are based on aggregate metrics that are non-transparent and thus present high greenwashing potential:

- The NZIF alignment categorization system lacks sufficient detail and stringency to ensure that the metrics based on it are meaningful.
- Assumptions underlying temperature scoring are never disclosed, and scores can essentially be based on the rating of investees' commitments, even if these are not credible.
- Portfolio coverage metrics can be an interesting indicator to track, but these targets can also be seen as a way to shift responsibility onto investees. Furthermore, PCTs suffer from the same potential defects as TPs due to the lack of evaluation of the credibility of investees' commitments.

BOX 2: IIGCC NZIF ALIGNMENT CATEGORIZATION SYSTEM

The NZIF Asset Alignment Target is based on a five-tiered categorization (with separate, although similar, criteria for each asset class, as seen in Figure 5):

Figure 5: Example of asset alignment assessment grid

Criteria underpinning alignment assessment

Key ✓ Green ticks represent when a criterion is required to be fulfilled for a particular alignment category to be obtained.

Criteria	Committed to aligning	Aligning to a net zero pathway	Aligned to a net zero pathway	Achieving net zero
Asset with emissions intensity required by the sector and regional pathway for 2050 and whose operational model will maintain this performance.				✓
Emissions performance: Current absolute or emissions intensity is at least equal to a relevant net zero pathway.[65]			✓	✓
*** Capital allocation alignment:** A clear demonstration that capital expenditures are consistent with a relevant net zero pathway.			✓	✓
*** Decarbonisation plan:** A quantified set of measures exists to achieve short and medium term science-based targets by reducing GHGs and increasing green revenues, when relevant.		✓	✓	✓
Disclosure: Disclosure of operational scope 1, 2 and material scope 3 emissions.		✓	✓	✓
Targets: Short and medium term science-based targets to reduce GHG emissions.		✓	✓	✓
Ambition: A long term goal consistent with the global goal of achieving net zero by 2050.	✓	✓	✓	✓

* Additional alignment criteria that a corporate within a high impact material sector needs to meet.

Source: IIGCC, NZIF v2.0

The alignment assessment can be conducted either in terms of the percentage of AUM or financed emissions.

Overall, the NZIF alignment framework is weakly defined, and alignment targets based on it may not be meaningful.

The requirements for "Committed to aligning" are weak, as a net-zero commitment by 2050 appears by itself to be judged as sufficient, without any clear criteria for evaluating the credibility of the ambition.

Furthermore, some criteria are not sufficiently detailed: the NZIF implementation guidance fails to explain how a capex plan should provide a "clear demonstration" that it is "consistent with a relevant net zero pathway," or what constitutes a credible "Decarbonisation plan" beyond a "quantified set of [emissions reduction] measures."

Climate solutions investment targets

- A total of 36 climate solutions investment targets (12%; 24 investors) were found in the sample.
- The vast majority (72%) of these targets are based on an absolute amount of finance to be reached by a certain year. They are nearly always cumulative. A quarter are based on a percentage of AUM. Only two targets relate to insurance premiums, and another two relate to a set number of projects or installed capacity of renewable energy to be reached.
- Ten investors have set their own sustainable investment framework. In-scope investments and asset classes are never clearly disclosed. Thirteen targets are specifically based on green, social, and/or sustainability bonds. Only two targets mention alignment with the EU Taxonomy. These targets also include "low-carbon solutions" without defining these clearly. Investors appear to encompass a broad range of asset classes within their sustainable investment targets, which can create a discrepancy with emissions targets based on a narrower range of targets. The metrics recommended by the NZIF (e.g. ratio between financed green revenues and green revenue) are not used by any investor.
- Ambition levels vary and cannot be directly compared due to methodological differences:
  - ◊ For targets expressed in relative terms, goals range from 4% of AUM in green bonds or "green investments," up to 20% in Sustainable Development Investments (SDIs[26]), and 50% in fixed-income funds.
  - ◊ For targets expressed in absolute terms, goals range from EUR 1 billion to EUR 200 billion.
  - ◊ Several investors express their targets as an increase over a time period (e.g. eightfold or 7% compound annual growth rate (CAGR)). Some (e.g. the French public pension fund ERAFP) merely state that their target is only to "increase" their investments in climate solutions, which is highly inadequate.
  - ◊ More than 40% of the climate solutions investment targets analyzed (57% short-term and 15% medium-term; there are no long-term targets) were already achieved, and progress or alignment is impossible to assess for 42%. This may also indicate a lack of ambition for these targets.
- NZAOA members never disclose a detailed breakdown per asset class of climate solutions investments, as mandated by the TSP. This is probably because climate solutions investment targets aggregate a large array of asset classes. We found no examples of NZAOA members complying with the TSP requirement to disclose "a credible assessment that the economic activities contributing to the objectives of the investment do not cause significant harm to people and the environment."

Climate solutions investment targets are mostly non-comparable due to the different definitions of climate solutions. The high level of target achievement is more likely to indicate weak ambition than serious efforts to redirect investments toward real climate solutions.

BOX 3: NZAOA TSP AND IIGCC NZIF CLIMATE SOLUTIONS INVESTMENT TARGETS GUIDANCE

TSP climate solutions investment targets

According to the TSP, "climate solutions investments are investments in economic activities considered to contribute to climate change mitigation (including transition enabling) and/or adaptation, in alignment with existing climate related sustainability taxonomies and other generally acknowledged climate related frameworks." The TSP mentions common frameworks, such as the International Capital Market Association (ICMA) Green Bond Principles (GBP), the Climate Bonds Initiative (CBI), and the Green Loan Principles of the Loan Syndications and Trading Association (LSTA).

The TSP does not define what climate solutions are, giving its members the freedom to choose their own definitions.

The TSP directs members to "conduct a credible assessment that the economic activities contributing to the objectives of the investment do not cause significant harm to people and the environment."

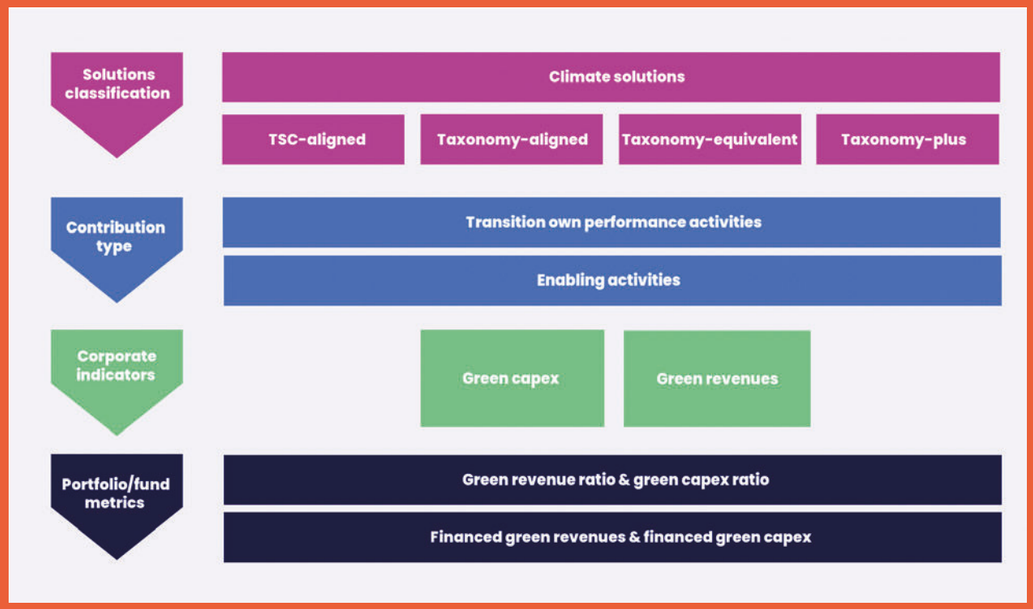
NZIF "Allocation to Climate Solutions Objective"

The NZIF implementation guidance gives a generic definition of climate solutions as "activities, goods or services that contribute substantially to, and/or enable, emissions reductions to support decarbonisation in line with credible 1.5°C pathways towards net zero, or that contribute substantially to climate adaptation."

The NZIF implementation guidance only relates to **listed equity and recommends that "investors set a quantitative objective [<10 years] for scaling up investments in climate solutions, where possible."**

The framework recommends that objectives use the following metrics: (i) priority metrics: green revenue ratio divided by financed green revenues; (ii) recommended metrics: green capex ratio, financed green capex; and (iii) optional metrics: low-carbon production-based metrics, avoided emissions. It also proposes four categories of climate solutions, as seen in Figure 6.

Figure 6: NZIF typology and metrics for climate solutions



Source: IIGCC, NZIF v2.0: Implementation Guidance for Objective and Targets

Overall, neither the NZAOA TSP nor the IIGCC NZIF provides a clear framework for defining climate solutions investment targets — either in terms of the definition of climate solutions or the form these targets should take.

Engagement targets

- A total of 26 engagement targets (9%; 19 investors) were found in the sample.
- Nearly 60% of these targets are based on the percentage of financed emissions (usually 70%, sometimes 90%, as recommended by the NZIF). The assumptions for calculating financed emissions are never clearly disclosed. One-third of the targets are based on the number of companies to engage (e.g. 20 top emitters, as recommended by the TSP) without providing an equivalent in terms of the percentage of financed emissions.
- Engagement targets should relate to a specific engagement type or activity and set a clear goal. But two-thirds of engagement targets are based on vague and generic engagement types (e.g. just "engage" or "active ownership," "engage on climate"). Four targets are based on the "NZIF engagement threshold" (i.e. mixing alignment and "active management or stewardship"), and four targets aim to engage on transition plans or SBTs.
- All targets relate to corporate engagement except for two that concern asset manager engagement. No NZAOA members in our sample have set engagement targets, which are supposedly mandatory. And no NZAOA member has set engagement targets for two out of the four engagement categories, which is required to meet its net-zero engagement commitments (see Box 4: NZAOA TSP and IIGCC NZIF engagement targets).

Engagement targets are based on vague metrics that say nothing about overall strategies or — often — objectives. By themselves, engagement targets are meaningless. More detailed and concrete Key Performance Indicators (KPIs) should be used for target setting.

BOX 4: NZAOA TSP AND IIGCC NZIF ENGAGEMENT TARGETS

TSP engagement activities and targets

The TSP differentiates four categories of engagement activities: (i) asset manager engagement; (ii) corporate engagement; (iii) sector and value chain engagement; and (iv) publication contributions (support for the drafting of the NZAOA's position papers).

Members are required to set engagement targets in at least two categories to meet the Alliance's net-zero engagement commitments.

The TSP proposes several vague KPIs for each category of engagement:

- **Corporate.** Engage 20 companies with the highest owned emissions or those responsible for the combined 65% owned emissions in the portfolio (either directly or via membership/asset manager/service provider).
- **Asset manager.** Participate in engagements led by the NZAOA or [bilaterally] using its own internal systematic approach.
- **Published positions.** Contribute to NZAOA publications or net-zero papers published outside the Alliance.
- **Sector/Value chain.** Participate in NZAOA sector work or external sector engagement activities. According to the NZAOA, engagement implies a set of actions with:
- **Issuers.** For example, "raising climate risks and/or opportunities," setting "expectations for issuer action" with "clear and well-defined objectives," requesting issuers to "[p]ublicly commit to support the transition to a net-zero world by 2050 in line with no/low overshoot" and to "put into place strategies and transition plans" and set "science-based, near-term GHG reduction targets that are in line with reaching net zero emissions by 2050."
- **Asset managers.** For example, requesting asset managers to "[p]ublicly commit to support the transition to a net-zero world by 2050 in line with no/low overshoot," to commit "their entire portfolios to 1.5°C alignment and net zero by 2050, preferably through an established framework like the Net-Zero Asset Manager Initiative," or align "their climate policy engagement policies and practices with any stated commitments to net zero."

But the guidance fails to indicate concrete means to ensure that corporates and asset managers implement these actions and reach the desired objectives.

NZIF engagement threshold targets

The NZIF recommends setting engagement threshold targets: "A minimum proportion of assets (based on scope 1 and 2 of financed emissions) are assessed as 'achieving' or 'aligned' to a net zero pathway, or are subject to engagement, increasing gradually over time."

The framework differentiates strategies according to asset classes:

- For listed equity, corporate fixed-income, real estate and infrastructure asset classes, investors are expected to set an engagement threshold target which immediately ensures that at least 70% of scope 1 and 2 financed emissions in material sectors originate in assets that are either categorized as achieving net zero, aligned to a net-zero pathway, or are subject to engagement and stewardship actions. This threshold should increase at least to 90% by 2030 at the latest.
- For private debt equity and debt, investors are merely recommended to "undertake specific engagement actions for all (100%) applicable private equity investments," without defining "engagement actions."

The NZIF also recommends that investors describe their approach or strategy regarding engagement with assets for which scope 3 emissions are material, at least for "high impact material sectors."

Mixing alignment objectives with vague commitments allows investors to reach the threshold of 100% of companies engaged, even if the latter are not aligned with a net-zero pathway or achieving net zero. **This guidance does not hold investors accountable for the results of their engagement activities.**

Overall, both the TSP and NZIF guidance on engagement targets are filled with generic actions and weak indicators. The NZIF implementation guidance gives some examples of escalation actions and "emphasises the importance of taking an outcomes-based approach to stewardship," while the TSP only mentions how to ensure outcomes.

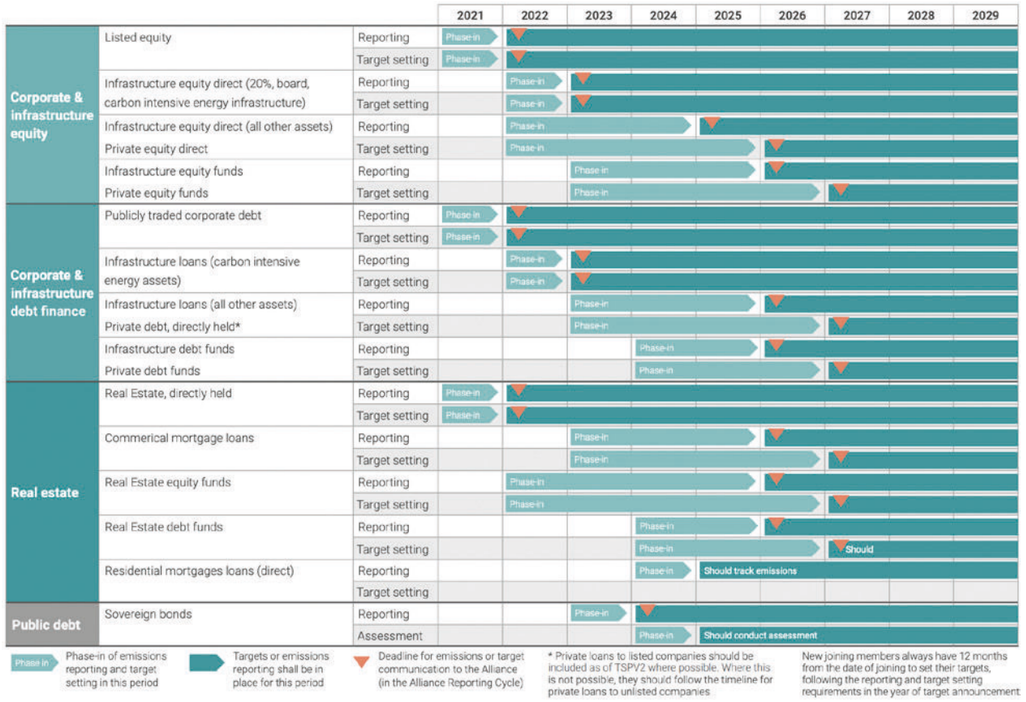
C. ASSET CLASS COVERAGE

Both the NZAOA TSP and the IIGCC NZIF mention the same list of asset classes: (i) listed equity and corporate bonds; (ii) infrastructure debt and equity; (iii) real estate; (iv) private debt and equity; and (v) sovereign bonds.

By the end of 2024, NZAOA members must include the following asset classes in their sub-portfolio targets: (i) listed equity; (ii) infrastructure equity (direct, carbon-intensive energy); (iii) publicly traded corporate debt; (iv) infrastructure loans (direct, carbon-intensive energy); and (v) real estate (directly held). The fourth edition of the TSP excludes residential mortgages and sovereign bonds from its target-setting schedule without providing a clear explanation.

The two most covered asset classes are listed equities and corporate bonds. Nearly 40% of investors in our sample have targets covering at least one of these two, and 30% have targets covering both. Almost 50 targets (corresponding to 44 investors, or 68% of those with

Figure 7: NZAOA TSP asset class phase-in schedule



Source: NZAOA Target-Setting Protocol: Fourth edition

Table 5: Asset class coverage

Asset class	Number of targets	Percentage
Listed equity	107	39%
Corporate bonds	102	37%
both listed equity and corporate bonds	80	28%
Infrastructure	15	5%
Real estate	49	17%
Private equity and debt	4	1%
"All (material) asset classes"	14	5%
undefined	74	26%

targets) cover real estate, nearly always directly held. These are almost exclusively specific targets expressed in physical emissions intensity. Fourteen targets claim to include "all (material) asset classes" without listing what these are. Only 5% of targets specifically include infrastructure financing, and 1% (four targets) include private equity and/or debt (only in decarbonization and climate solutions investment targets).

For more than a quarter of the targets, the assets covered are not specified. This is often the case for engagement targets, climate solutions investment targets, and alignment targets, but also for sector-specific emissions targets.

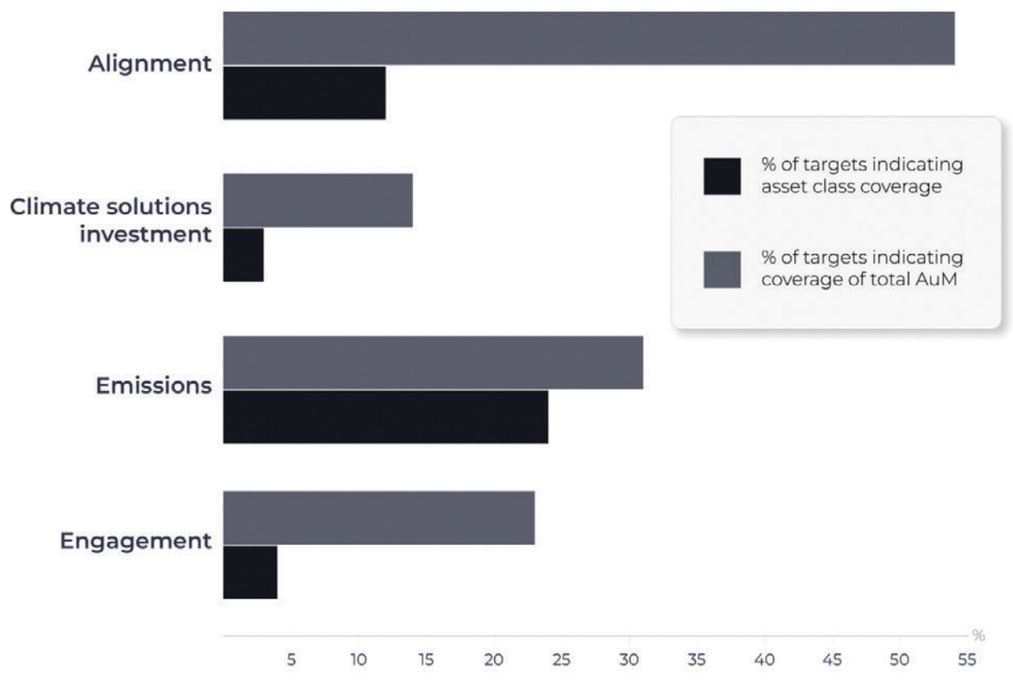
The targets that cover "all (material) asset classes" are essentially climate solutions investment targets (as noted above, sustainable investment targets tend to cover more asset classes than decarbonization targets).

Investors' equity and bond portfolios typically have high turnover rates. These shifts can materially affect target metrics and coverage across AUM. To ensure transparency, investors should publish annually updated coverage rates — reported as the share of total AUM and of AUM by asset class — to reflect any portfolio changes.

Investors are not transparent about the asset coverage of their targets. Only 32 investors (40% of targets) report the ratio of covered to total assets. Even when asset or class coverage is reported, this is often only for the reporting or baseline year, and the reporting is not consistent from year to year. **It is therefore very difficult to track asset coverage and to assess the impact on target metrics.**

Total AUM coverage averages 48% (with a minimum of 12% (State Street Global Advisors, in 2021) and a maximum of 90% (Aéma Groupe)). However, it should be noted that these percentages of AUM coverage are not necessarily based on all the assets owned by the entity; for example, some are limited to "proprietary investments" managed by the group's asset manager, while others cover only a portion of the insurer's general account.[27]

Figure 8: Percentage of targets indicating AUM coverage



Investors are neither rigorous nor transparent in tracking the scope of assets under management and/or assets owned that are included in their targets. Reporting should provide a detailed breakdown of these assets, including coverage figures for total assets and each asset class — not only for the reporting year but also since the baseline year.

D. EMISSIONS SOURCE COVERAGE

Scopes

The IIGCC NZIF states that investors following its Portfolio Decarbonisation Reference Objective on corporate assets must include portfolio scope 1 and 2 emissions.[28] It recommends that material portfolio scope 3 emissions be "phased into net zero efforts at the portfolio level, as data availability, quality, and consistency allow, as well as where meaningful to net zero goals."[29] The NZIF requires scope 3 emissions to be monitored separately from portfolio scope 1 and 2 emissions, and a separate strategy to be created to address these.

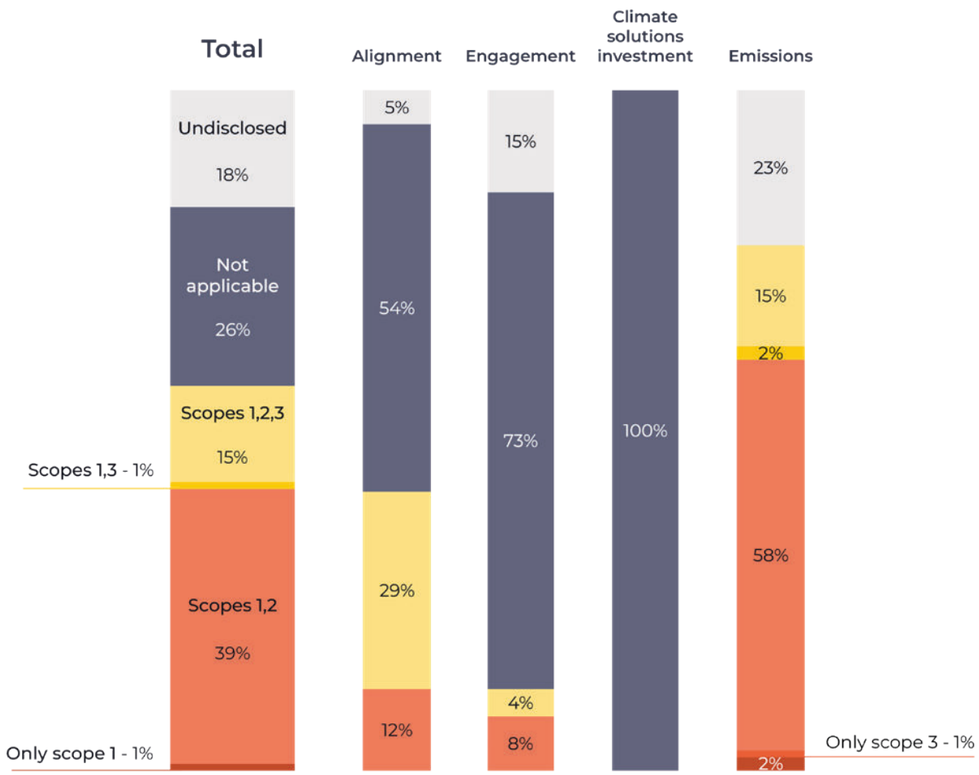
The NZAOA TSP states that "at the portfolio level, Alliance members should track scope 3 emissions, but are not yet required to set targets on them until interpretation of these emissions in a portfolio context becomes clearer and data become more reliable."

Emission scopes coverage is not applicable for 27% of targets, which are based on financial or other non-emission-related metrics. This is especially the case for climate solutions investment targets and engagement targets. Overall, scopes

are not disclosed in 17% of targets. Forty percent of targets (58% of emissions targets) cover only scopes 1 and 2, and only 17 investors (14% of targets) include scope 3 in their targets.

There is a clear divergence between the scope coverage practices of banks and those of investors. Banks widely include scope 3 emissions for the most material sectors (e.g. energy and transport), often based on proxies, and disclose some relevant PCAF data quality scores. There is no reason why investors cannot do the same. The lack of reliable data is an argument that is increasingly less compelling, and double counting is not a valid justification for excluding scope 3 from targets because, ultimately, this amounts to omitting a large part of the impact of investments.

Figure 9: Emission scopes coverage per target type



GHGs

The NZIF's implementation guidance mentions that investors "are recommended to account for all seven of the GHGs under the Kyoto Protocol [...] expressed as carbon dioxide equivalents (CO_2e)," and therefore "need to ensure any science-based net zero pathways used also relate to CO_2e." It does not mention the need to report which gases are included within CO_2e reporting, or to disaggregate targets based on individual gases.

The NZAOA TSP states: "Alliance members should report on a CO_2e basis. Wherever disaggregation is available for non-CO_2 GHGs, Alliance members should report on a disaggregated basis." Moreover, "Alliance members will continue to use CO_2 pathways as a proxy for all GHG gases, targeting a more ambitious year of net zero for all GHGs."

No investors in our sample report which GHGs are included in their targets, making it impossible to assess GHG coverage and alignment with non-CO_2 reduction goals or pathways. It is particularly important to disaggregate methane from other GHGs given its important contribution to climate change, the various regulations and global targets to which it is subject, and the lack of consensus over how to render the warming impact of methane emissions into CO_2-equivalent units.[30]

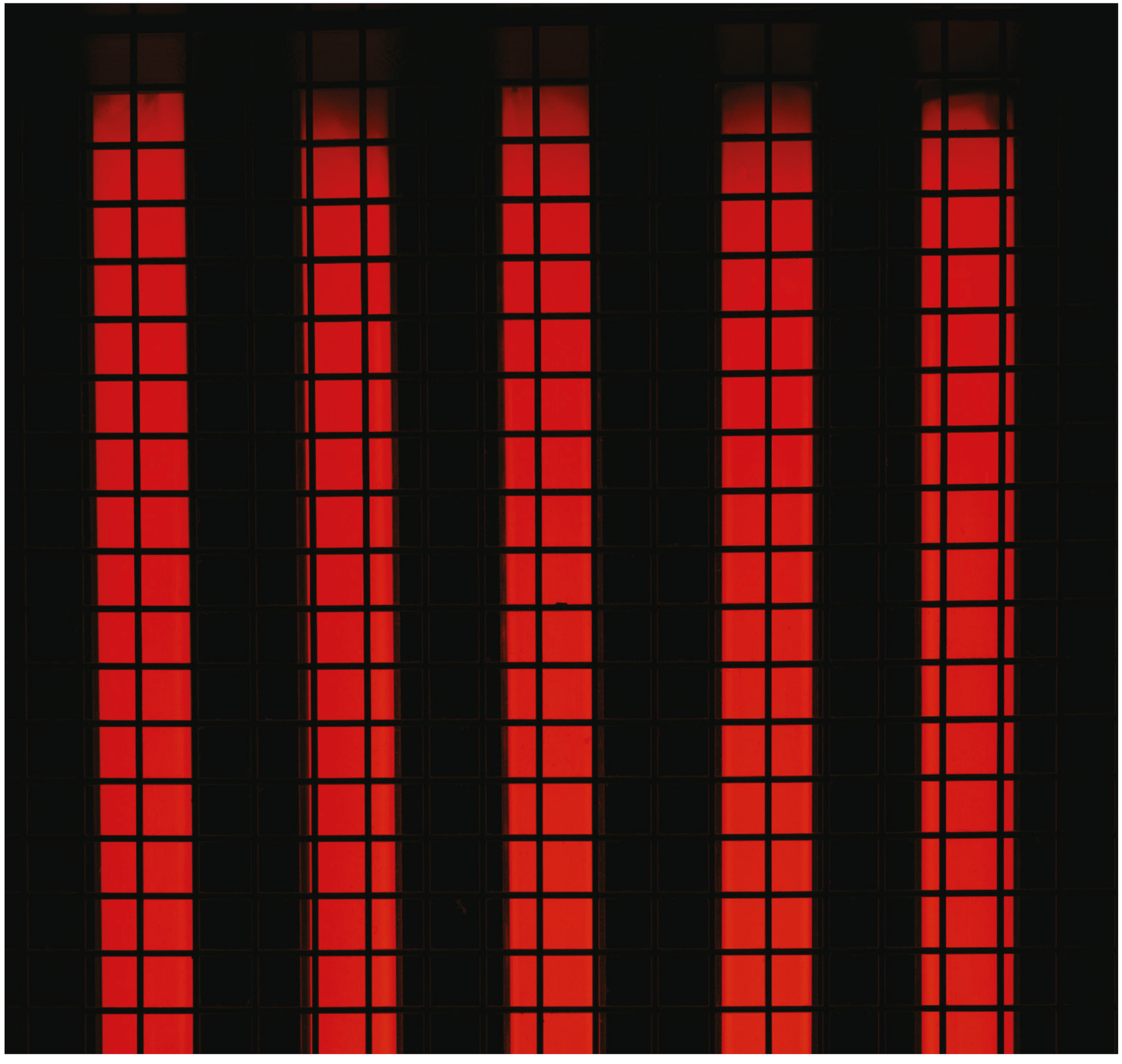
E. BENCHMARK SCENARIO, AMBITION, AND ACHIEVEMENT

Both the NZAOA TSP and IIGCC NZIF refer to a 1.5°C (no/low overshoot) target and the latest IPCC reports (SR1.5 and AR6).

The NZIF recommends setting targets based on the IPCC SR1.5, the IEA's Net Zero by 2050 roadmap, and the One Earth Climate Model (OECM), which are the global net-zero pathways deemed "consistent with global carbon emissions reaching net zero by 2050, with low or no overshoot, and thus providing a sufficient probability of limiting warming to 1.5°C."

The TSP requires alliance members to set targets based on the IPCC's 1.5°C scenario ranges, with no or limited overshoot. For sub-portfolio targets, "Alliance members shall target 40 per cent to 60 per cent reductions by 2030 (compared to YE2019) in line with IPCC estimates (AR6 Synthesis Report Summary for Policy-makers, table SPM.1)." The NZIF implementation guidance also recommends investors "set a 2019 baseline to both align with science-based net zero pathways which indicate a global 50% emissions reductions from 2019 levels to 2030 is required, and to increase comparability for net zero objectives."

Given the methodological issues raised above and the widespread lack of transparency, investors cannot credibly claim that their targets are based on a scientific approach, let alone any alignment with a specific temperature or net-zero trajectory.



03

RECOMMENDATIONS

How to connect targets with real-world decarbonization

1. CLIMATE TARGETS MUST BE SET AS PART OF A BROAD, COHERENT, AND AMBITIOUS CLIMATE STRATEGY.

Targets help set an ambition, a direction, and a trajectory toward the objective of decarbonizing investor portfolios. However, they are not sufficient on their own and are only one piece of an investor's climate transition plan. Climate targets must provide clear direction and quantify the objectives of a broader climate strategy aimed at decarbonizing the real economy, sometimes characterized by a commitment to achieving net zero. This requires targets to be integrated into a comprehensive and robust transition plan.[31]

Transition plans must include a holistic and coherent view of all available levers for action, using a variety of targets for each, with a level of granularity sufficient to allow for a clear understanding of how the overall strategy is intended to achieve real-economy decarbonization. They must be accompanied by numerous complementary elements, such as robust counterparties and transactions screening (sectoral) policies, clear engagement and voting strategies, as well as an adequate governance framework and organizational structure.

2. EMISSIONS TARGETS.

a. Align with 1.5°C science-based scenarios.

Interim targets must be tied to 1.5°C **no/low overshoot pathways, relying on a limited volume of negative emissions.**[32] Granular information must be provided on the alignment between targets and reference pathways.

These pathways include the IEA's Net Zero Emissions by 2050 scenario (NZE, 2023 update) or the Network for Greening the Financial System's (NGFS) Net Zero 2050 and Low Demand scenarios. Other "limited negative emission" pathways can be identified by applying the reasonable negative emission ranges determined by the Navigating the Energy Transitions report from the International Institute for Sustainable Development (IISD), such as the IPCC's C1 pathways.[33] Investors should also refrain from using target ranges and scenarios

that are not from widely recognized and reputable sources.

Carbon credits should not be included in interim targets. Carbon removals can only be used to offset residual emissions (less than 10% of baseline emissions, the baseline being set for 2020 at the earliest[34]) in achieving long-term (net-zero) commitments.

b. Set emissions targets at the sectoral level, covering all material sectors.

The argument that setting sectoral targets is not possible because there is insufficient data does not hold, and investors must make all necessary efforts to engage with asset managers, companies, and data providers to collect the required information. A sectoral view offers a much more concrete perspective on decarbonizing the real economy than an asset class view. Sectoral targets can be phased in across asset classes, starting from listed equity, corporate fixed-income, and real estate.

The notion of materiality can be understood in different ways, but it should primarily depend on emissions. Investors should strive to cover at least 90% of their portfolio emissions. Exclusion of financial services and/or asset classes should be justified, for instance, if no methodology is available to calculate and attribute emissions (although methodologies already exist for most asset classes), or if part of AUM is linked to discretionary mandates with predetermined targets.

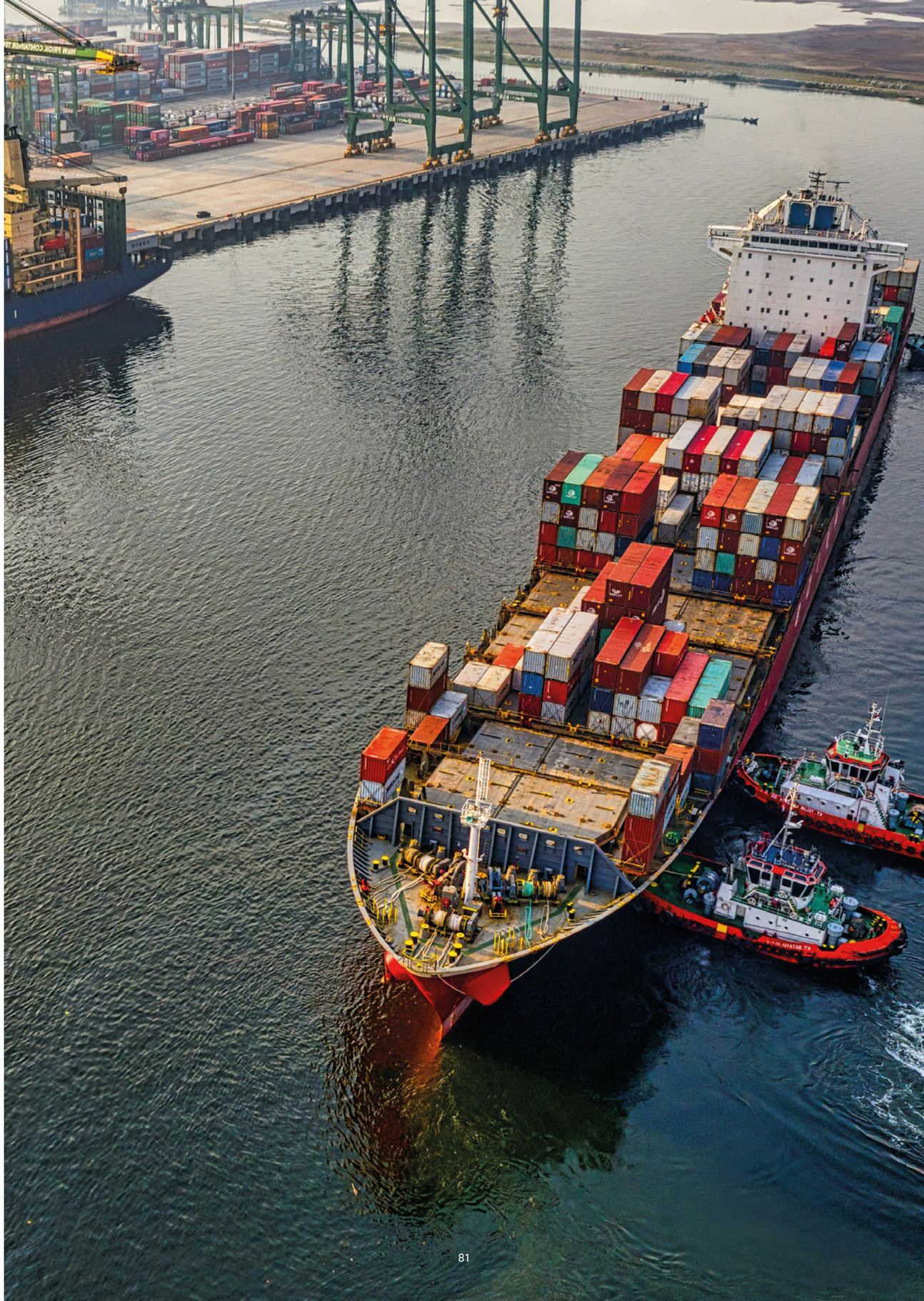
For fossil fuel supply sectors (that must be phased out rather than decarbonized), investors should use investment volume reduction targets that cover all material asset classes, and that aim to phase out investment in fossil fuel companies.

For fossil fuel demand sectors (that must be decarbonized rather than phased out, e.g. transport, industrial sectors, agriculture, etc.), targets should be based on **weighted average physical intensity (WAPI)** metrics (physical emissions intensity, calculated as a weighted average of the intensities of investees).

Investors should also monitor and disclose unattributed emissions (total emissions for investees without adjusting for corporate value or holding size) for each sector and asset class.

c. Include comprehensive coverage of asset classes and group entities.

Targets must cover all asset classes where the investor is active and where credible methodologies have been developed. Groups with asset management subsidiaries must ensure alignment across entities and include the disclosures of all the commitments of the group's



entities in a single document that explains these commitments and quantifies the asset coverage at the group level.

Investors must consistently disclose the asset classes covered and overall portfolio AUM coverage. This is particularly important for financial consortia comprising several entities (e.g. an insurer or pension fund and its asset management subsidiary). If the assets of subsidiaries are left outside the scope of targets, this will need to be amply justified; investors will need to ensure and demonstrate consistency in the articulation between their targets and those of their subsidiaries.

Investors should transparently disclose and present a complete view of all assets under management at the group level, with a breakdown by both sector and asset class. This breakdown should clearly indicate for each entity the portion subject to the calculation of emissions and its corresponding decarbonization trajectory and target.

d. Cover all material emission scopes and GHGs and set methane-specific targets for relevant sectors.

Emission scopes and GHGs should be considered material if they represent more than 5% of the sector's total emissions. Data limitations are no longer a sufficient excuse to exclude scope 3 emissions, especially in high-emitting sectors. Investors should work with issuers and data providers to improve disclosure and reliability.

Investors should set specific methane emission targets for each of the high methane-emitting sectors (i.e. energy, agriculture, and waste management and disposal).

e. Set separate short-, medium-, and long-term targets, choose a baseline year that is both recent and representative, and review the targets at least every five years, aiming for carbon neutrality by 2050 at the latest.

Investors should set short-, medium-, and long-term emissions targets to help chart an indicative but comprehensive pathway toward the ultimate net-zero goal. These targets should be reviewed at least every five years, but would benefit from more frequent reviews in light of scientific and methodological developments (e.g. from the IPCC, IEA, SBTi). Investors should select representative and recent baselines for each target and provide a full justification for any changes in data, methodologies, or other factors that necessitate re-baselining.

f. Exclude carbon credits from targets.

Investors should not include in the calculation of their emissions targets the carbon offsets purchased and/or retired by issuers or by themselves.

g. Provide transparent and comprehensive reporting on methodologies and progress.

Investors should strive to be as transparent as possible in their target-setting methodologies and annual reporting.

Investors should publish a comprehensive, standalone methodology document that includes the following elements for each target:

- Target type and metric.
- Organizational and total assets coverage.
- Sector coverage (value chain segments).
- Asset class coverage (list of asset classes and coverage rate of each).
- Emission scopes and GHG coverage.
- Baseline year and value.
- Target year, value, reduction rate (if relevant).
- Benchmark scenario (if relevant) and detailed justification for the target value or reduction rate (if relevant).
- Formula used to aggregate issuer metrics at the portfolio level.

To be completely transparent, investors should also disclose data on their portfolio annually, from the oldest target base year up to the reporting year:

- Breakdown of: (i) total assets per group entity, asset class, and sector; and (ii) total financed emissions per group entity, asset class, and sector, with details on calculation, data sources, and disaggregated data quality scores.
- For each target: (i) coverage rate per group entity, asset class, and sector; (ii) progress on target metric; and (iii) year-on-year attribution analysis, and discussion on the evolution of the target metric since the base year.

Investors should disclose a series of emissions metrics (see Appendix 1) for each sector and asset class to give a complete overview of the emissions profile of portfolios, including the: (i) sum of absolute unattributed emissions; (ii) weighted (by relative exposure in portfolio) average of absolute unattributed emissions; (iii) weighted (by relative exposure in portfolio) average of absolute unattributed emissions normalized by total portfolio value; and (iv) weighted (by relative exposure in portfolio) average of physical emissions intensities.

h. Disclose information on data quality, potential data gaps, and improvements.

Investors should disclose any discrepancies, reliability, and quality concerns regarding the data underlying all footprint and target calculations (reported companies' emissions, third-party data providers, proxies, etc.). This includes, for example, an in-depth analysis of any unexpected and significant variations in reported company emissions.

When client or issuer data on GHG emissions (in particular scope 3 data) is either not available or the quality can be questioned, investors should use third-party data providers or publicly recognized sources, or make their own calculations relying on best-available proxies and estimates. However, such reliance should be disclosed and justified, and high-end estimates should always be used to avoid manipulating emission figures.

Investors should disclose PCAF data quality scores (disaggregated as much as possible by sector and asset class, with underlying assumptions).[35]

i. Publish attribution analyses and metric adjustments.

Attribution analyses and metric adjustments are rare among the in-scope investors in our analysis. Investors should disclose, on an annual basis, a year-on-year attribution analysis accompanied by a graph illustrating the share of each component's responsibility in the metric's evolution.

Clear attribution analyses explain changes in portfolio emissions over time for all metrics. These analyses must inter alia differentiate between the impact of factors such as investee real-world emission reductions, financial factors such as changes in corporate values, and portfolio alterations (e.g. new investments, reallocations, etc.).

3. ALIGNMENT TARGETS.

Alignment targets should be based on transparent and clearly defined indicators. The choice of these indicators must be explicitly justified based on their contribution to achieving investee decarbonization. Terms used in portfolio coverage targets, such as "credible transition plans" and "science-based targets", must be clearly defined. Investors must be fully transparent regarding the methodology used to compute alignment metrics, providing details about their calculation and disclosing semi-disaggregated interim values (e.g. for Implied Temperature Rise targets, disclose portfolio companies' targets before aggregation, regression models used etc.).

4. ENGAGEMENT TARGETS.

Stewardship strategies must go beyond vague commitments and include:

- A list of general and sectoral, time-bound expectations for portfolio companies.
- The scope of companies engaged, and the criteria and databases used to identify these companies.
- A systematic escalation strategy that plans automatic sanctions according to a predefined schedule for companies that do not meet expectations.
- The escalation strategy should include all tools available to investors, such as meetings with management and board members, sending private and public letters, asking written and oral questions at AGMs, filing and supporting shareholder resolutions, voting against management-proposed resolutions, making public statements, stopping new investments or reducing holdings, etc. Divestment should be the last step in an escalation strategy and should be considered only if all these other engagement sanctions have failed.
- A clear transparency framework, including:
  - ◊ The frequency and format of publication of proxy voting records and rationales (where appropriate, explicitly stating the reasons for not providing full transparency on this activity).

  - ◊ The frequency and format of publication of engagement reporting.
- A rigorous voting policy, including:
  - ◊ The scope of application of the voting policy (where appropriate, explicitly stating the reasons for not voting for all companies for which the asset manager is a shareholder).
  - ◊ Precise and concrete rules that companies must meet for the asset manager to vote in favor of a resolution (covering each type of resolution).

Asset managers must report annually against the framework presented in the associated engagement policy. Investors should report on the current state of expectations met, or not, by companies in their portfolios, rather than focusing on activity indicators (number of companies involved, number of meetings held, voting rate for ESG resolutions, etc.), and report on individual case studies. For each expectation defined for companies, asset managers should annually report:

- The share of portfolio companies, and the associated share of assets under management, that meet the expectation,
- The share of portfolio companies, and the associated share of assets under management, that do not meet the expectation and that have been sanctioned, specifying the sanction applied.

5. CLIMATE SOLUTIONS INVESTMENT TARGETS.

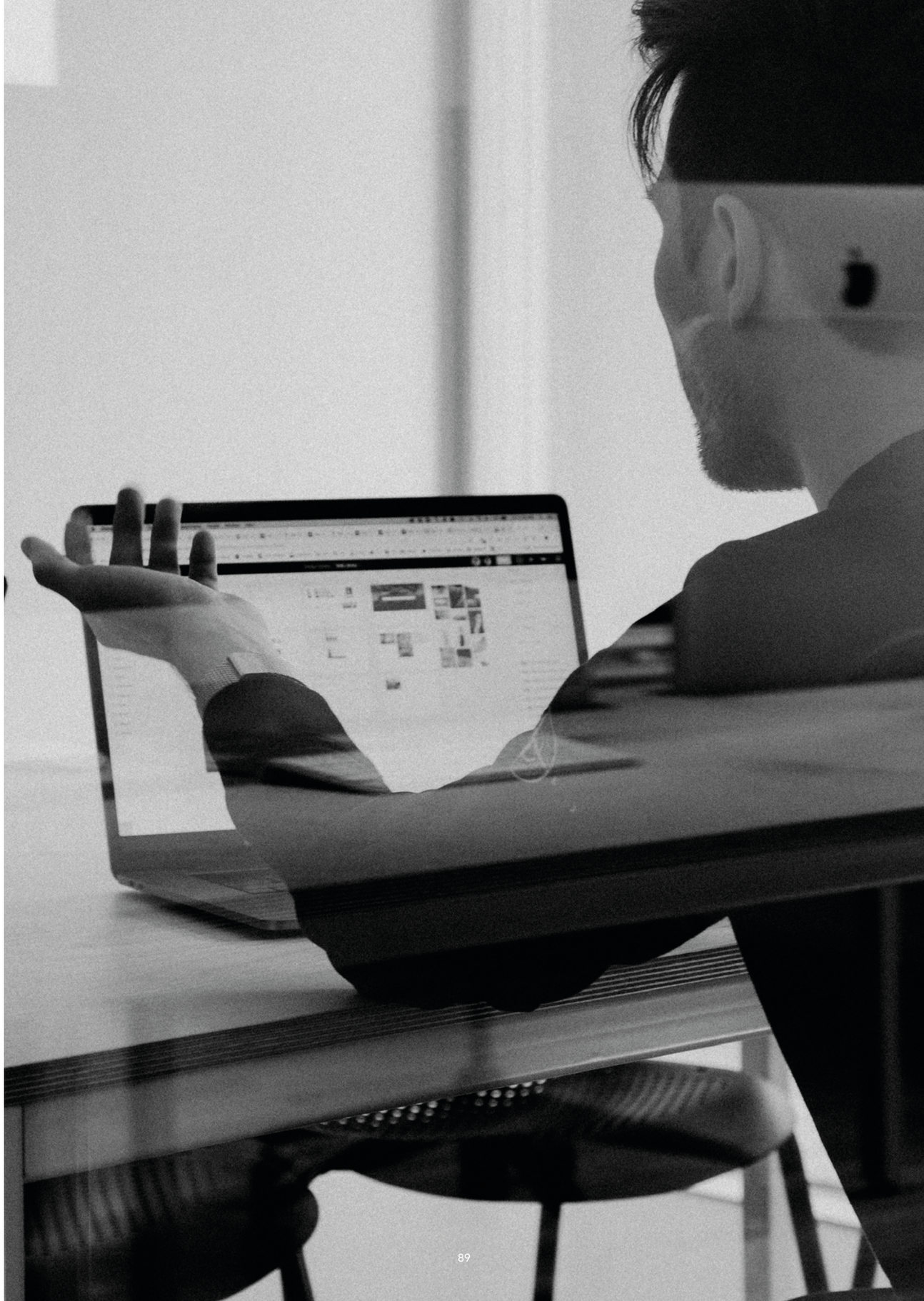
Investors should reach a ratio of at least 6:1 of finance for sustainable activities in the power sector versus fossil fuels by 2030.[36] This energy supply financing ratio (ESFR), which is compatible with the IEA's Net Zero Emissions by 2050 (NZE) pathway, should be based on a comprehensive, consistent, and transparent coverage of asset classes for both sides of the ratio. Progress toward meeting this 6:1 ESFR target should be disclosed annually.

Currently, there is no well-established and globally agreed-upon framework for clearly defining climate solutions or categorizing sustainable or transition investments. The EU Taxonomy for Sustainable Finance — considering all objectives, not just climate mitigation, and all the criteria ("Sustainable Contribution Criteria" (SCC), "Do Not Significant Harm" (DNSH), and "Minimum Safeguards" (MS)) — remains the most comprehensive framework. Furthermore, certain documents must serve as guidance in the definition of climate solutions, notably the IEA reports and its NZE scenario for the energy sectors, as well as the IPCC scenarios.

Nonetheless, investors should clearly define the framework for their sustainable investments. Only referencing methodologies for so-called "sustainable" instruments, such as those of the ICMA, is insufficient. These methodologies can leave the door wide open to technologies that may lead to carbon lock-in by extending the lifespan of fossil fuel infrastructure and/or to technologies whose technical and economic feasibility and/or scalability have not been proven. These methodologies can also propose instruments that have been proven to be prone to greenwashing (e.g. sustainability-linked bonds).

Investors must therefore exclude all technologies that merely aim to extend the lifespan of fossil fuel assets (e.g. ammonia co-firing for coal-based power generation, blue hydrogen) from their climate solutions investment targets and limit the share of those whose feasibility remains unproven (e.g. direct air capture (DAC)) to their maximum share in well-established scenarios.

More importantly, investors must be transparent about the composition of their climate solutions investments, providing a detailed breakdown of these investments by asset class, sector, and type of climate solution.



APPENDICES

APPENDIX 1: EMISSIONS METRIC FORMULAS

Absolute financed emissions

$$absolute\ financed\ emissions\ (tCO_2e) = \sum_i \frac{current\ investment\ value}{issuer\ corporate\ value} \times issuer\ emissions$$

Insurance-associated emissions (IAE)

$$insurance - associated\ emissions\ (tCO_2e) = \sum_i \frac{insurance\ premium}{insured\ revenue} \times insured\ emissions$$

and for personal motor insurance portfolios:

$$insurance - associated\ emissions\ (tCO_2e) = \sum_i \frac{insurance\ premium}{total\ costs\ of\ ownership\ of\ vehicles} \times vehicles\ emissions$$

Carbon footprint/economic emissions intensity

$$carbon\ footprint\ \left(\frac{tCO_2e}{million\ euro\ or\ dollar\ invested}\right) = \sum_i \frac{current\ investment\ value}{total\ portfolio\ current\ value} \times \frac{issuer\ emissions}{issuer\ corporate\ value}$$

Weighted average carbon intensity (WACI)

$$WACI\ \left(\frac{tCO_2e}{million\ euro\ or\ dollar\ revenue}\right) = \sum_i \frac{current\ investment\ value}{total\ portfolio\ current\ value} \times \frac{issuer\ emissions}{issuer\ revenue}$$

Carbon intensity (revenue)

$$carbon\ intensity\ \left(\frac{tCO_2e}{million\ euro\ or\ dollar\ revenue}\right) = \frac{\sum_i \frac{current\ investment\ value}{issuer\ corporate\ value} \times issuer\ emissions}{\sum_i \frac{current\ investment\ value}{issuer\ corporate\ value} \times issuer\ revenue}$$

APPENDICES A

Real estate physical emissions intensity

$$real\ estate\ physical\ emissions\ intensity\left(\frac{kgCO_2e}{m^2}\right)=\frac{\sum_i \frac{investment\ value}{building\ value\ at\ origination}\times building\ emissions}{\sum_i \frac{investment\ value}{building\ value\ at\ origination}\times building\ surface}$$

Weighted average physical emissions intensity (WAPI)

$$WAPI\left(\frac{kgCO_2e}{physical\ sectoral\ output\ (e.g.\ kWh,\ t\ cement)}\right)=\sum_i \frac{current\ investment\ value}{total\ portfolio\ current\ value}\times issuer\ physical\ emissions\ intensity$$

ECOTS (Enterprise value + Cash weighted Temperature Score)

$$ECOTS\left(°C\right)=\sum_i \frac{\frac{current\ insurance\ premium}{issuer\ corporate\ value}\times issuer\ emissions}{total\ portfolio\ corporate\ values}\times issuer\ temperature\ score$$

Absolute unattributed emissions

$$absolute\ unattributed\ emissions\ (tCO_2e)=\sum_i issuer\ emissions$$

Weighted (relative exposure) average of absolute unattributed emissions

$$weighted\ average\ absolute\ emissions\ (tCO_2e)=\sum_i \frac{current\ investment\ value}{total\ portfolio\ current\ value}\times issuer\ emissions$$

Weighted (relative exposure) average of absolute unattributed emissions normalized by total portfolio value

$$weighted\ average\ absolute\ emissions\left(normalized\right)(tCO_2e)=\frac{\sum_i \frac{current\ investment\ value}{total\ portfolio\ current\ value}\times issuer\ emissions}{total\ portfolio\ current\ value}$$

APPENDIX 2: ADJUSTMENT FACTORS

Several adjustment factors can be suggested:

- In a report on climate benchmarks,[37] the EU TEG on Sustainable Finance suggests adjusting decarbonization rates as follows:

$$reduction\_rate_{adjusted} = 1 - \left(\frac{1 - reduction\_rate}{1 + inflation}\right)$$

- The PCAF Standard[38] also proposes an adjustment factor to normalize EVIC:

$$adjuster_t = \sum_i \omega_t \times \frac{EVIC_b}{EVIC_t}$$

where ω_t are the benchmarks weight at time t, and b is baseline year

PCAF states that this adjuster can be used both backward (on the baseline year) or on the current reporting year. However, if only the baseline is adjusted, all other reported values will be unadjusted. It seems more intuitive to keep the baseline value constant and adjust as progress is tracked:

$$carbon\_footprint_t^{adjusted} = \frac{carbon\_footprint_t^{unadjusted}}{adjuster_t}$$

- A brief by the CFA Institute Research Foundation[39] suggests measuring year-on-year change of economic emission intensity performance at the security level rather than the portfolio level:

$$\Delta economic\_intensity = \sum_i \omega_i \times d_i \times \left(\frac{economic_{intensity_t}}{economic_{intensity_{t-1}}} - 1\right)$$

where ω_i are the portfolio weight, and d_i the duration of holding

Weighting the portfolio by duration of holding mitigates the effect of divestment in the middle of the reporting period and window dressing on the outcome.

The brief also recommends tracking several metrics (including physical emissions intensity) to separate and/or eliminate effects linked to changes in exchange rates or prices, and ultimately convey a more complete narrative.

APPENDIX 3: COMPARISON TABLE BETWEEN THE NZAOA TSP, IIGCC NZIF, AND SBTI FINZ

Topic	NZAOA TSP Fourth edition	IIGCC NZIF 2.0	SBTi FINZ	Comments
Asset class coverage	**Listed equity, publicly traded corporate debt, real estate (residential and commercial; directly held, equity and debt funds, mortgages), infrastructure equity and debt (direct and funds), sovereign bonds, private equity and debt (direct and funds).** **Sovereign bonds and mortgages are out of scope.** As of 2025, the following asset classes should be included in target setting: listed equity, corporate bonds, infrastructure equity direct, infrastructure loans (carbon-intensive energy assets), and real estate (directly held).	**Listed equity and corporate fixed-income, sovereign bonds, real estate, infrastructure, private equity, and private debt.** NZIF recommends that investors make "plans to ratchet up net zero targets to include additional target types, asset classes and AUM until 100% is covered by asset alignment targets."	For each sector segment (A to D) and financial service type, the FINZ defines in-scope asset classes. It includes **equity and corporate bonds of listed corporates and SMEs, private equity, venture capital, private debt, private equity, or project finance**. However, differences are made for each segment based on specific conditions (e.g. equity ownership, board seats). Some asset classes are excluded (e.g. supranational, sovereign, sub-sovereign bonds; cash and equivalents, derivatives, commodity trading).	**All frameworks include a similar list of asset classes, with a more granular categorization in the TSP, and a different segmentation in the FINZ.** **In practice, while engagement or climate solutions investment targets include all asset classes, these are phased in when it comes to emissions reduction (sub-portfolio) targets, introducing a divergence in accounting.**
Emissions source coverage	**Scope 1, 2, and material scope 3 recommended, "wherever possible." Scope 3 coverage is emphasized, especially for high-emitting sectors. At the portfolio level, Alliance members should track and report scope 3 emissions ("shall" for sectoral targets).** "Alliance members shall therefore set targets on their own scope 3 emissions, [i.e.] emissions stemming from assets held only for investment purpose but where the asset owner is a majority owner or where the asset owner is in a control position need to be (partially) reported under scope 1 and 2." "Alliance members will review the targets of the companies in their portfolio and **shall set targets on the investee company's scope 1 and 2 emissions**. Alliance members **should also set targets on the scope 3 emissions** of the portfolio company as soon as possible, and each individual Alliance member is encouraged to move as early as it deems feasible.	Scope 1 and 2 required. Scope 3 inclusion is encouraged where data is reliable. Less prescriptive than the TSP.	The calculation of gross portfolio emissions shall include, at a minimum, the following: (i) **scope 1 and 2 emissions, covering all portfolio counterparties; (ii) relevant scope 3 emissions for portfolio counterparties within the following sectors: automotive, coal, oil and gas, and real estate; (iii) all seven GHGs** in their GHG emissions inventory: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).	**Both the TSP and NZIF only prescribe the inclusion of investees' scope 1 and 2 emissions, and highlight data challenges related to scope 3 emissions accounting, which are prominent in some sectors (energy, transportation). The FINZ requires that scope 3 emissions from portfolio counterparties be included for key sectors.** The TSP argues that "corporate data on Scope 3 emissions range from somewhat unreliable to highly unreliable, and several data providers estimate Scope 3 emissions with a wide range of outcomes," and, therefore, scope 3 emissions should only be included when "interpretation of these emissions in a portfolio context becomes clearer and data become more reliable."

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Baseline	"The Alliance's Commitment [...] **requires targets to be set every five years in line with the Paris Agreement Article 4.9 cycle, specifying a five-year cycle of 2025, 2030, 2035, etc**. When Alliance members join between these dates, they shall establish targets that align with this cycle." "Base year for subsequent target: members shall choose either YE2024 or the **base year of their first target cycle**. Diverging base years are allowed for **asset classes that are gradually phased in."**	"Investors are recommended to set a **2019 baseline** to both align with science-based net zero pathways which indicate a global 50% emissions reductions from 2019 levels to 2030 is required, and to increase comparability for net zero objectives." "NZIF recommends that **baselines reflect a portfolio's composition** and any changes be attributed to allow equivalent comparison."	"Financial institutions shall select a base year for target setting that is **representative of their activities**—i.e., reflecting typical operations—avoiding years with anomalies such as one-off events or unusual economic conditions, and that is **no earlier than 2020**. [...] The base year selection for portfolio climate-alignment targets shall be **consistent across all financial activities."**	**Both the TSP and NZIF refer to year end (YE) 2019 as a baseline, while the FINZ precludes choosing a base year earlier than 2020; the TSP also refers to its target-setting cycle, which follows the Paris Agreement's five-year cycles.**
Scenario and ambition	**Aligned with IPCC 1.5°C pathways with no or limited overshoot. Scenarios must be science-based.** "Alliance members shall **target 40 per cent to 60 per cent reductions by 2030** (compared to YE2019) in line with IPCC estimates (AR6 Synthesis Report Summary for Policymakers, table SPM.1)" "In case of **target underachievement**: The underachieved emissions delta shall be added to the new reduction target in case a member changes its initial base year to a subsequent base year."	**NZIF refers to IPCC P1, P2 and P3, as well as IEA NZE, OECM, TPI SDP, SBTi, NGFS, or CREM.** "IIGCC does not recommend that investors use the P4 pathway given its reliance on a high volume of NETs." "It is expected **by 2040, that 100% of assets are, as a minimum, aligned to a net zero pathway."**	**All SBTi standards are aligned with a 1.5°C no/low overshoot objective.** Climate alignment targets are parameterized on a 1.5°C benchmark in all eligible third-party frameworks. Sector targets must ensure alignment with 1.5°C sectoral benchmarks.	**All frameworks refer to a 1.5°C-aligned pathway with no/low overshoot, citing IPCC AR6 and SR1.5 reports as well as OECM and IEA NZE scenarios. However, none are very stringent regarding the volumes of Negative Emissions Technologies (NETs) in the chosen scenario (e.g. 687 $GtCO_2e$ of CCS up to 2100 in the IPCC's P3).**
Reporting and transparency	"Alliance members shall **disclose annually, individually, and publicly, on progress towards individual targets, including on investment portfolios' emissions profile and emissions reductions."** "All **adjustments** made to targets and **methodologies** shall be communicated in a transparent way to the public, explaining the reasons and the methods in detail." "All **reporting**, by investee companies and by asset owners, shall be done on a **gross basis showing emissions and removals separately**, and shall be done on a **sector-specific basis**."	**"Reporting annually on the strategy and actions implemented and progress** towards achieving objectives and targets, and in line with the Task Force on Climate-related Financial Disclosures **(TCFD)** recommendations." "When monitoring and reporting progress: Investors are recommended to: a. **Measure absolute emissions reductions** achieved at the asset level, and **other drivers of emissions reductions**, where possible. b. Measure the **progress towards an absolute and/or intensity target at the portfolio level."**	Financial institutions shall commit to publicly report progress against targets on an annual basis." Reporting shall include gross GHG emissions inventory "for segments A, B and C, as well as the GHG accounting methodology, assumptions, data sources, and data quality scores of the underlying data used," "climate-alignment and sector metric assessment," "a progressive increase in scope and quality to a full GHG emissions inventory and a full climate-alignment assessment," "clean energy–to–fossil fuel financial exposure ratio, per FINZ-C8, including the corresponding financial exposure amounts," and "deforestation exposure."	**The FINZ and TSP are more prescriptive than the NZIF regarding reporting, with a more precise list of indicators to report on. All frameworks emphasize the importance of reporting progress, gross emissions, drivers of change in target metrics, methodological changes, or re-baselining. None gives a precise reporting framework.**

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Target and metric types	**The TSP prescribes that its members set three out of four targets, with engagement targets mandatory: (i) engagement targets; (ii) climate solutions investment targets; (iii) sector targets; (iv) sub-portfolio (decarbonization) targets.** The TSP sets specific requirements for different target types: • **Sub-portfolio targets:** ◊ Members "shall strive" to reduce financed emissions from year end (YE) 2019 by 22–32% by YE2024, and 40–60% YE2029. ◊ Members shall report: Base year, target year, metric used, target reduction (%), scope 3 (yes/no), annual financed GHG emissions since base year, GHG emission data coverage (%), AUM, AUM covered by sub-portfolio target (possible to set targets on combined asset classes), and carbon intensity (if applicable). ◊ Members then shall disclose the share of the total portfolio that is covered by the target and establish a time-bound plan to retrieve reported and reliable data for those assets not covered by the target. • **Sectoral targets:** ◊ Members who set sectoral targets shall progressively implement them, beginning with their most material sectors (from an owned-carbon emissions standpoint).	**NZIF recommends four "types" of targets:** (i) at the portfolio level, the 'Portfolio **Decarbonization Reference Objective' (PDRO);** (ii) the **'Allocation to Climate Solutions Objective'** which supports investments in technologies that are required to decarbonize the real economy; (iii) the '**Asset Alignment Target**' which provides an overview of where investments are on their net-zero journey and a comprehensive understanding into what an investee or asset could do to achieve net zero; and (iv) The **'Engagement Threshold Target'** which focuses on targeting the most GHG-intensive investments in a portfolio.	The FINZ requires that financial institutions **set one or more near-term targets and one long-term net zero-alignment target for each in-scope financial activity, using any of the eligible target metrics and target-setting methods.** SBTi target metrics and target-setting methods include: (a) for near-term targets (FINT standard): (i) **Sectoral Decarbonization Approach** (SDA); (ii) **Portfolio Coverage;** (iii) **Temperature Rating;** and (iv) Fossil Fuel Finance targets; (b) for long-term targets (FINZ standard): (i) Emissions Intensity; (ii) Absolute Financed Emissions; and (iii) **Climate Alignment** (which is similar to portfolio coverage). The SBTi discloses a list of eligible third-party alignment methodologies, as well as a list of eligible taxonomies. For fossil fuel sectors, the FINZ requires submitting financial institutions to publish policies that commit to the phase-out of financing to these sectors.	**The TSP is more prescriptive than the NZIF, but both frameworks give a lot of leeway regarding target implementation.** **The FINZ recommends different methodologies for near-term interim targets and imposes metrics for long-term targets depending on the sector or segment. The standard also goes beyond target setting by imposing the publication of policies. It does not require any sustainable financing target.** • Both the TSP and NZIF are equally vague regarding the definition of "climate solutions," only referring to "generally acknowledged climate-related frameworks" (ICMA, LMA/LSTA, CBI, etc.) and local taxonomies. They also take up the same metrics (green revenues and green capex at the portfolio and/or fund levels). The FINZ also refers to a list of eligible third-party frameworks and taxonomies, with specifics for some of them. • Many NZAOA members covered by our research do not appear to have complied with the requirement to set engagement targets and at least two of the three other target types.

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Target and metric types	◊ Members shall set targets using production-based metrics wherever possible before using economic-based metrics. ◊ Members shall report on the chosen target year and base year, as well as the targeted reduction or carbon level for each sector, with the respective metric used. Members shall also report the associated absolute emission reductions. • **Engagement targets:** ◊ To meet the NZAOA net-zero engagement commitments, members shall set targets in at least two categories, and, where possible, in all four categories (asset manager engagement, corporate, sector and value chain, publication contribution). ◊ Members shall report cumulatively the number of companies, asset managers, or sectors engaged. ◊ Climate solutions investment targets: Members shall report USD assets under management of the climate solutions investments portfolio, with an asset class breakdown.			• PDROs and sub-portfolio targets, as well as 'Engagement Threshold' and engagement targets, and 'Allocation to Climate Solutions Objective' and 'Climate Solutions Investments' targets, are similar. The SBTi's Portfolio Coverage and Climate Alignment targets are close to the NZIF's Asset Alignment target, while the TSP refers to the SBTi's SDA.

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Carbon removals and offsets	"Alliance members shall **not use carbon removals for their own sub-portfolio or sector target achievement at this time or at any time before 2030** (when this protocol comes to term). Nevertheless, members are highly encouraged to contribute to a liquid and well-regulated carbon removal certificate market before 2030 as such a market is important for accelerating decarbonisation." "**Investee companies shall not use carbon removals exceeding emission levels indicated by broadly accepted sector pathways aligned with 1.5°C** ("residual emissions" as defined by science-based sector pathways) **to claim net-zero target achievement**. Investee companies shall only incorporate carbon removal certificates with long-lived storage (as defined by the **Oxford Principles**). Alliance members shall require investee companies to obtain independent, broadly accepted verification."	"As a general principle, it is recommended that investors should not use purchased offsets at the portfolio level to achieve emissions reduction targets. They should also adopt a precautionary approach when assessing assets' alignment with net zero and the use of offsets." "Investors should not allow the use of external offsets as a significant long-term strategy for achievement of decarbonisation goals by assets in their portfolios, except where there is no technologically or financially viable solution." "Credits purchased by participants within regulated carbon markets that are designed to meet the net zero emissions goal can be used." "Investors should not offset emissions in one part of their portfolio through accounting for avoided emissions in another part."	**The FINZ prohibits financial institutions from including in their GHG inventories financed and/or insured carbon removals, carbon credits, or avoided emissions.** The calculation of gross portfolio emissions shall exclude the following: Deducting or netting negative emissions from the financing or insuring of carbon removal activities, including carbon removals the financial institution directly supports via its financial activities and carbon removal credits purchased by portfolio entities. Deducting or netting emissions from the use of carbon credits, including those purchased by the financial institution or its portfolio entities. Deducting any form of avoided emissions, which the financial institution may claim as part of its financing or insurance underwriting of certain climate solutions, and the avoided emissions reported by portfolio entities."	**Both the FINZ and the TSP are more restrictive than the NZIF on the inclusion of carbon removals and/or credits in meeting targets. The FINZ forbids the inclusion of any carbon removals, credits, or avoided emissions. The TSP restricts investee companies' use of removals (but it is unclear how it "transfers" to investors). The NZIF allows for the use of offsets "where there is no technologically or financially viable solution."**
Engagement	"Alliance members shall **engage their asset managers** to increase: 1. **Understanding** of how asset managers are representing the asset owner's **long-term climate interests**[.] 2. The **alignment between the asset manager's actions and their interest as an asset owner** when necessary."	"Engage external fund managers on the need to manage funds in alignment with net zero that is consistent with NZIF's alignment criteria." "Undertake stewardship with market actors to ensure that their assessments, data and products are based on alignment criteria, robust methodologies, and are consistent with net zero goals."	The FINZ broaches the topic of engagement less than the other two frameworks, even if "the 'engagement first' approach prioritizes engaging portfolio companies to set their own science-based targets as the primary mechanism to drive emissions reductions." **It mentions engagement plans as a part of climate transition plans (FINZ-R1), as well as (fossil fuel or deforestation) policies (also a recommendation for fossil fuel policies).**	**Both the TSP and NZIF list generic channels** (policy advocacy, market engagement, stewardship, external fund manager engagement) **and goals** ("consistent with," "achieve net zero," "long-term climate interests") **for engagement, but fail to define clearly both the objectives and the means** (e.g. examples of escalation actions are mentioned, without clear guidelines). Both frameworks refer to additional separate guidance documents. **The FINZ refers to engagement as an important part of the strategies of financial institutions but does not mention specific engagement targets.** **Engagement targets are based on vaguely worded metrics ("engaged on climate issues," "aligned with NZ OR under direct or collective engagement and stewardship actions").**

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Data gaps and adjustments	The NZAOA highlights the limited data availability for scope 3 emissions, production-based data, and in general for private asset classes, and conditions some actions on data availability. It also issued a "Sector Call to Action" to companies and data providers. "The Alliance recognises that due to data availability issues, a member may not be able to reach an effective coverage of 70 per cent of its investment portfolio owned emissions." The TSP mentions **adjustments on portfolio growth, currency changes, and on merger and acquisitions (M&A) activities**, but does not suggest any concrete solution.	"Data availability and quality is currently low but is likely to increase in the short to medium term as disclosure expectations of companies in some jurisdictions are adopted, such as EU's Corporate Sustainability Reporting Directive (CSRD) and ISSB." "In the near term, investors may wish to identify the companies where there is insufficient disclosure or data to assess alignment." "IIGCC encourages investors to help accelerate improvements to data quality and coverage by engaging with companies to disclose the required information for assessing alignment and with data providers to provide products and services that are aligned to the alignment criteria set out in NZIF." The NZIF Implementation Guidance for Objectives and Targets presents **adjustment factors to deal with portfolio growth, EVIC/inflation volatility**, and recommends disclosing both unadjusted and adjusted metrics.	"Financial institutions may start with partial data and by progressively expanding the scope and improving the quality of their inventories, financial institutions ensure reliable measurement of emissions over time without delaying near-term action." "Financial institutions shall submit the following information used in the calculation of gross portfolio emissions: Data source(s) used and a data quality score of the underlying data."	**To a certain extent, both the TSP and the NZIF seem to acknowledge data limitations as a reason to exonerate (partially) investors from reporting or setting a target. The NZIF specifically recommends that investors engage both companies and data vendors. The FINZ prescribes that financial institutions disclose all data sources and data quality scores, recognizing that GHG inventory comprehensiveness and quality should improve over time, even if coverage rates remain fixed for near-term and long-term targets.** **The NZIF offers more detailed solutions on how to deal with the volatility of the financial components in target metrics.**

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1. This categorization was chosen based on the typology in the main frameworks on which the targets are based. All the targets are ultimately aimed at decarbonizing investor portfolios even if the engagement or climate solutions investment targets may also relate to other objectives (e.g. climate adaptation, biodiversity protection, social issues).
2. See e.g. Reclaim Finance, Targeting Net Zero: The need to redesign bank decarbonization targets, Figure 3, p.33, September 2024.
3. See Reclaim Finance, Financial Institutions' Transition Plans: How to drive real-economy decarbonization, December 2024
4. The SBTi Corporate Net-Zero Standard states: "In the long-term, emissions in the cross-sector pathway are reduced by at least 90% and most sector-specific pathways also reduce CO_2 emissions by 90% or more from 2020 levels. Consequently, long-term science-based targets will be equivalent to at least a 90% absolute reduction across scopes for many companies, regardless of whether the cross-sector pathway or sector-specific pathways are used." (SBTi Corporate Net-Zero Standard. V 1.3, September 2025).
5. Key sectors identified for the NZBA are agriculture; aluminum; cement; coal; commercial and residential real estate; iron and steel; oil and gas; power generation; and transport (UNEP FI/NZBA, Guidelines for Climate Target Setting for Banks: Version 2, April 2024).
6. See Reclaim Finance, Recommendations for Asset Managers, 2025; Reclaim Finance, Recommendations for asset owners to drive climate impact through asset manager engagement, January 2024; Reclaim Finance, Climate stewardship: A guide for effective engagement and voting practices, August 2023.
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27. An insurer places premium payments from the policies it issues in its general account. The insurer can use the funds in a variety of ways — for example, draw them from the account to cover business operations and treat them like an investable asset managed by the group or a third-party asset manager.
28. IIGCC, NZIF 2.0: Objectives, June 2024
29. Ibid. 28
30. See e.g. R. Jordan, Rethinking how to measure methane's climate impact, Stanford School of Sustainability, 9 February 2022; S. Cenci & Enrico Biffis, Lack of harmonization of greenhouse gases reporting standards and the methane emissions gap, Nature Communications 16, 11 February 2025.
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Reclaim Finance is an NGO affiliated with Friends of the Earth France. It was founded in 2020 and is 100% dedicated to issues linking finance with social and climate justice. In the context of the climate emergency and biodiversity losses, one of Reclaim Finance's priorities is to accelerate the decarbonization of financial flows. Reclaim Finance exposes the climate impacts of financial players, denounces the most harmful practices and puts its expertise at the service of public authorities and financial stakeholders who desire to bend existing practices to ecological imperatives.

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