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Responsible Investment

Climate Alignment Principles: How to invest in line with a +1.5°C goal

Executive summary

- As efforts to deliver on the Paris Agreement galvanise, investors are beginning to switch from simple commitments to tangible actions. We are increasingly asked by clients: "How can we invest in line with the 1.5°C goal?" This research paper explains our proposed approach, which we call our Climate Alignment Principles
- There have been numerous industry efforts to establish a framework to help investors with this aim. These cover the entire process from investment governance, to policy, target setting, asset allocation and stewardship, as well as reporting and monitoring. The focus of this paper is on investment. We have covered the other sections in prior papers including our 2020 Taskforce for Climate-related Financial Disclosure Report, Climate Scenario Analysis, and Strategic Asset Allocation for a +1.5°C World
- Investments aligned with a credible pathway to delivering on the Paris Agreement will need to be primarily focused on one of two objectives. These are either opportunities enabling the climate transition via new products and services, or companies which are rapidly decarbonising at a rate akin to what climate science requires to keep global warming to +1.5°C versus pre-industrial times
- At AXA Investment Managers, we propose to start from a set of principles which guide our decision-making and frame the selection of tools and key performance indicators to achieve portfolio alignment. We believe that by following these principles we can effectively navigate the evolving landscape and constructively tackle the challenge of aligning our strategies with the Paris Agreement

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The context: Why align investments with +1.5°C?

The Paris Agreement set out to limit the increase in the world's average temperature to at most 2°C above pre-industrial levels and to pursue efforts to hold it to 1.5°C. The Task Force On Climate-related Financial Disclosure (TCFD) framework [1] has highlighted how economic and financial risks are ultimately at stake, and hence must form part of institutions' overall financial risk assessment[2].

Since the TCFD recommendations were published in 2017, disclosure of climate-related financial information, identification, assessment and management of key climate risks have steadily improved, with industries most exposed taking the lead on climate related disclosure. According to the last TCFD status report, the number of organisations supporting the TCFD framework has increased by 85% since 2019[3].

This positive momentum goes in line with strengthening regulatory pressure regarding non-financial disclosure. New European Union (EU) directives on non-financial disclosure include recommendations consistent with the TCFD. In some other countries like New Zealand, the use of the TCFD framework in financial reporting is mandatory.

Growing awareness of the potential consequences of failing to achieve the Paris Agreement goals, as well as increasing investor demand, have spurred on greater support for Paris-aligned investment initiatives. Additionally, they have inspired the emergence of a range of frameworks designed to set the ground rules for investment industry alignment.

In the recent months, the financial industry has made further progress in terms of the alignment of investments - and some emblematic initiatives have come up with concrete frameworks.

These included the publication of the Paris Aligned Investment Initiative Net Zero Investment Framework, the United Nations convened Net-Zero Asset Owner Alliance and the Science Based Targets initiative (SBTi)'s framework for financial institutions. These projects offer a wide range of guidelines, from overall investment protocols and pragmatic decarbonisation and climate objectives, to a specific focus on assessing the medium and long-term decarbonisation commitments of companies and issuers we invest in.

Figure 1: Main investments alignment frameworks in 2020

Framework	Methodology	Focus and nature of the initiative	Publication Date
Institutional Investors Group on Climate Change (IIGCC) **Paris Aligned Investment Initiative - Net Zero Investment Framework**	Three-level decision making process: 1) Portfolio-level: Sets direction and portfolio structure for alignment 2 Asset Class-level: Shifts alignment of assets to meet portfolio goals 3) External: Influences enabling environment to facilitate alignment	• Investment Alignment Protocol • High-level recommendations	August 2020
United Nations convened Net-Zero Asset Owner Alliance	Four-target programme: 1) Portfolio targets 2) Sector targets 3) Engagement targets 4) Financing transition targets	• Investment Alignment Protocol • Targets setting framework • Commitment to Act	October 2020
Science Based Targets initiative: Framework for financial institutions	Three eligible science-based CO_2 emissions reduction targets setting approaches: 1) Sector Decarbonization Approach 2) Portfolio coverage method 3) Temperature	• Targets setting framework	October 2020

These recent initiatives are instrumental in helping investors take action and enter into the Net Zero implementation phase. They also provide insightful guidelines, alongside medium and long-term objectives.

However, when it comes to the articulation of these objectives into a portfolio process, their underlying full implementation requires a detailed, operational and practitioner perspective.

To apply alignment at a portfolio level and successfully integrate climate change mitigation and adaptation to investment portfolios, AXA IM brings the practitioner viewpoint, given that investment alignment comes with two high levels of decision. First, this includes understanding what supporting the Paris Agreement means for investment philosophy and second, assessing and integrating various climate assessment tools and portfolio key performance indicators (KPIs), which reflect the principles chosen.

This highlights the need to understand how the implicit choices made by data providers in model specifications will ultimately impact their climate investment philosophy. More importantly, investors must decide which combination of tools, KPIs and analyses to use, and integrate in to the overall investment process.

AXA Investment Managers proposes to start from an investment-aware and holistic approach. With the alignment Investment Principles, we describe the type of investment actions and the criteria for selection of issuers which in effect would guide managers and help assess consistency of investment strategies with a specific climate scenario.

The assessment will rely on quantitative and qualitative methods using both current and forward-looking climate performance criteria.

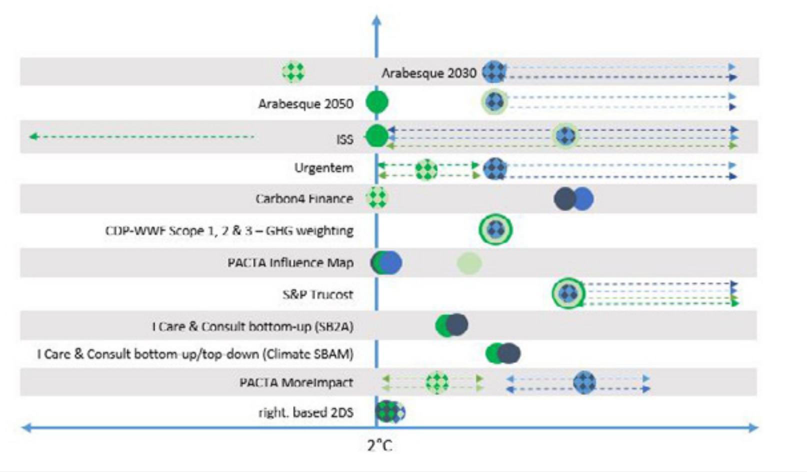
Multiplication of climate reporting tools, still not mature yet for implementation

In May 2020, the Net-Zero Asset Owner Alliance issued a Call for Comment on a carbon neutrality/"implied temperature rise" methodology convergence document. This document summarises investors' expectations for a robust alignment measurement methodology[4] .

The industry of financial data analytics has indeed been very innovative over the last three years in the field of climate science. The diversity and complexity of methodologies and stand-alone tools currently available in the market, which provide climate scenario analysis, carbon footprint pricing estimates and overall warming metrics still make it challenging for portfolio managers and investors to decide how they can "align a portfolio". This has been highlighted by various academic research - for example, the concept of temperature is growing in sophistication while still not reaching a consensus for standardisation among solution designers.

In the chart below extracted from "The Alignment Cookbook"[5], Institut Louis Bachelier compared alignment methods across two key indices for 2018 and 2019 - a mainstream index, the SBF 120, and a low carbon index, the Euronext Low Carbon 100 index. Most temperature estimates find that the SBF 120 is not aligned with a 2°C trajectory but results are more mixed for the Euronext Low Carbon 100. This also reflects the imprecision of the different alignment assessments. For example, some temperatures are taking the form of a score, or warming range, rather than a precise figure.

Figure 1: Relative dispersion of temperature/alignment tools around the 2°C trajectory (*)



Source: The Alignment Cookbook, A Technical Review of Methodologies Assessing a Portfolio's Alignment with
Low-Carbon Trajectories or Temperature Goal. Institut Louis Bachelier et al, 2020
(*) As depicted by the blue line (light green: LC 100 Index 2018, dark green: Euronext Low Carbon 100 Index 2019, light blue: SBF 120 Index 2018, Dark blue: SBF 120 Index 2019). Circles: Central value. Dashed arrows: Range.

[1] See Task Force on Climate-related Financial Disclosure, https://www.fsb-tcfd.org/
[2] See "Climate scenario analysis: Assessing the future for investments", AXA IM 2019 Climate scenario analysis: Assessing the future for investments - AXA IM Global (axa-im.com)
[3] See TCFD 2020 status report

[4] See Asset Owner Alliance – Methodological Criteria Call for Comment https://www.unepfi.org/wordpress/wp-content/uploads/2020/04/AO-Alliance_Request-For-Comment-on-Methodological-Principles_FINAL.pdf
[5] See the Alignment Cookbook, Institut Louis Bachelier, 2020. https://gsf.institutlouisbachelier.org/the-alignment-cookbook-a-technical-review-of-methodologies-assessing-a-portfolios-alignment-with-low-carbon-trajectories-or-temperature-goal/

> **"Going forward, decarbonisation will go with the development of a robust and demanding engagement strategy to influence and encourage a transition towards greener and more sustainable products, technologies or activities."**

Climate Investment principles: Moving towards Net Zero investment practices

To accelerate the adoption of information relevant to climate alignment, AXA Investment Managers has established a list of alignment principles . The aim of these guidelines is to help investment teams decide which relevant actions they need to take for different mandates, asset classes, markets, clients and investment objectives.

We have organised these principles into three pillars:

- Portfolio allocation
- Issuer selection
- Climate KPI monitoring

Portfolio allocation

Aligning capital flows with ambitious climate objectives requires a shift in portfolio allocation. This will be about augmenting the traditional emphasis on risk and return with additional, climate-focused targets. Portfolios must be structured in such a way as to support both decarbonisation and participation in the energy transition[6].

1/ **Support decarbonisation:** The Paris Agreement supposes to reach carbon neutrality by 2050 and halve carbon emissions by 2030. To complement divestment policies, decarbonisation at portfolio level can be supported via a positive allocation to carbon industry leaders already aligned with the Paris goals, but also a positive allocation to transitioning companies . Here, engagement policy will be key, and active stewardship a prerequisite, to monitor companies' progress and credibility to move in the right direction.

2/ **Participate in the energy/low carbon transition:** This will be carried out at portfolio level by allocating a certain percentage of a fund to green companies and climate solutions.

Such dual objectives do not always go hand-in-hand. Decarbonisation starts by divesting from the largest polluters, and especially the sectors that have no role to play in a world at 1.5°C. Coal divestment campaigns have clearly helped to reduce the carbon footprint of portfolios over the past five years[7]. Going forward, decarbonisation will go with the development of a robust and demanding engagement strategy to influence and encourage a transition towards greener and more sustainable products, technologies or activities.

[6] These objectives are aligned with the IIGCC Paris Aligned Investment Initiative's Net Zero Investment Framework PowerPoint Presentation (iigcc.org)
[7] See "Coal phase out: The investment case", AXA IM 2019 Coal phase out: The investment case - AXA IM Global (axa-im.com)

To find the relevant frontier between engagement and divestment on the basis of carbon objectives, it is necessary to consider both past and forward-looking carbon performance, and more generally to get an overall view of how companies are driving their carbon impact.

AXA IM proposed in previous research to shift the mindset from carbon footprint to carbon footpath[8], and more recently the Transition Finance Working Group we co-steered within the International Capital Market Association[9] sets the stage of investors' expectations around a robust transition strategy. At the extreme end of the spectrum, green investments will now need to respond to clear standardised definitions and taxonomies.

The allocation decision supporting alignment of investments will ultimately require the identification of a continuum of carbon performances, transition and green investments. The development of disclosure standards such as the European Commission taxonomy will certainly help, but we can start taking mitigation of climate change into account by using a broader definition of carbon alignment, alongside an insightful engagement policy.

Ultimately, alignment through portfolio allocation will require the redefinition of traditional asset classes alongside climate dimensions[10] - according to carbon performance of companies and their maturity regarding transition to a low carbon economy. We have set out a three-category typology to direct positive capital flows - the carbon leaders, the transition leaders and the green leaders.

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Climate Engagement and Stewardship[11]

Our key climate engagement objectives are shaped by the Task Force on Climate-related Financial Disclosures (TCFD) framework, the de facto reporting framework on this issue. Alongside establishing public support for the TCFD, AXA IM is a member of the Climate Action 100+ initiative and as such, our recommendations include urging companies to commit to science-based short, medium and long-term carbon emission reduction targets. There should be a clear explanation of corresponding capital expenditure plans. Secondly, firms should perform analysis using a scenario where global warming is limited to the Paris Agreement goal of well below 2˚C – and finally, align executive remuneration and climate governance practices with climate change objectives.

Over the last three years, we have seen corporates taking more decisive steps in identifying targets and establishing metrics disclosure. In Europe, net zero commitments and ambition plans have flourished especially in hard-to-abate sectors, but intermediary targets as well as low carbon investments plans are still insufficiently unambitious, if not totally missing. Moreover, companies are still not explicit enough on their climate strategy roll-out plans and in explaining how they will shift their business models to achieve climate goals. Going forward a large part of our climate-related engagement efforts will be dedicated to getting more clarity on climate pledges.

Example: An engagement programme with a leading multinational company in the chemical sector started in 2020.

Since 1990, the company in this example has doubled its production volumes and halved absolute greenhouse gas emissions, with the emission intensity decreasing by 75%. The company wants to achieve carbon neutral growth until 2030 - that is, carbon emissions should stabilise when production will continue to grow. Intensity should be reduced by 30% from today by 2030. Potential CO_2 reduction is based on three levers - process improvement and energy efficiency gains, shift in power supply, as well as research and development on low carbon technologies (pyrolysis technology and CO_2 credit). No Science-Based Targets framework for the chemical industry is available for now and the company explained that it was hard to define alignment in the short term for its overall business model. The company remains too evasive on the consistency of its carbon pledge with the Paris Agreement. We will continue working with the company on two key objectives - the disclosure and set-up of longer term targets for Scope 1, 2 and 3 carbon emissions and test for consistency of climate objectives with the Paris goals.

[8] See "Carbon reduction: Moving away from carbon footprint towards carbon footpath", AXA IM 2019 Carbon reduction: Moving away from carbon footprint towards carbon footpath - AXA IM Global (axa-im.com)
[9] See Transition Finance Handbook Climate transition finance – new guidance for issuers (icmagroup.org)
[10] See "Strategic Asset Allocation for 1.5°c world: A proposed framework", AXA IM 2020 RI - Strategic Asset Allocation for a +1.5°C World: a proposed framework - AXA IM Global (axa-im.com)
[11] See AXA IM Stewardship report, 2019 2019 Stewardship Report - AXA IM Global (axa-im.com) and H1 2020 HI 2020 Active Ownership and Stewardship Report - AXA IM Global (axa-im.com)

Issuer Selection – a new typology focused on climate

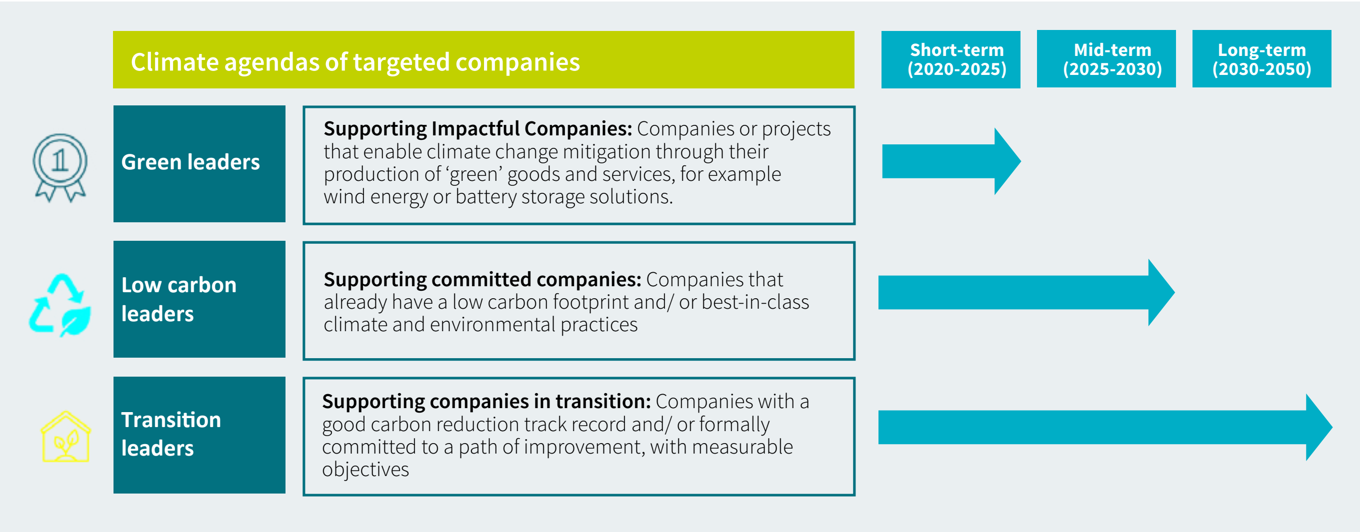
We propose to complement the usual assets typologies using three new climate variants **based on carbon and climate performance, capacity and commitment to transition to the 1.5° climate pathway, and more direct contribution to the green and low carbon economy development.**

3/ Identify low carbon leaders: Companies that already have a low carbon footprint and/or best-in-class climate and environmental practices

4/ Identify transition leaders: Companies with a good carbon reduction track record and/or formally committed to a path of improvement, with measurable objectives

5/ Identify Green leaders: Companies or projects that enable climate change mitigation through their production of 'green' goods and services, for example wind energy or battery storage solutions.

Figure 2: **New typology of assets based on maturity towards transition/alignment**



Identifying investments that meet these comprehensive objectives within each category is key in being able to positively allocate to the best-in-class issuers, as well as establishing minimum climate standards for those lagging the adaptability necessary to benefit from or support the transition. Achieving this outcome means assessing issuers with a diverse set of metrics and identifying how they interact. The table below describes the set of KPIs currently used which can be combined to select companies in each of the new climate categories mentioned above.

These range from carbon intensity, both absolute and relative to peers, measures of climate value at risk and future reduction targets, and metrics on the upside opportunity of the climate transition. Several of these companies have high intensity on an absolute basis but either demonstrate high transition potential or attractive green technology opportunity, which highlights the dilemma posed to investors that focus solely on carbon intensity.

Figure 3: **Holistic set of KPIs to identify carbon, transition and green leaders**

		Current Carbon Footprint			Carbon Footpath : Transition Credentials			Carbon Footpath : Impact & Solutions			
Company Name	Emissions Sector	"Carbon Intensity (Scope 1 + 2)"	Absolute Carbon Intensity Rank	"Relative Carbon Intensity Rank (Emission Sector)"	"Climate Policy Risk (% of Market Value)"	"Carbon Intensity Historical Growth (% Per Annum)"	Carbon Emissions Reduction Target %	% Revenue Mitigating Climate Change	Climate Pillar Score (AXA IM)	"Climate Technology Opportunity (% of Market Value)"	Category
Company A	Wholesale Power	304	86	33	-5%	-10%	-50%	37%	7,2	82%	Green Leader
Company B	Wholesale Power	655	92	39	-32%	-4%	-100%	11%	7,6	52%	Low Carbon Leader
Company C	Other Materials	80	70	23	-14%	-5%	-100%	89%	7,3	4%	Green Leader
Company D	Speciality Chemicals	306	86	67	-72%	0%	-100%	0%	6,5	59%	Transitioning Company

Sources: AXA IM, ISS-oekom, Trucost (S&P), MSCI

Reference to science-based scenarios and well recognised taxonomies will be also needed to refine issuers' selection. The figure below provides examples of analytics that can be used and combined to assess companies level of alignment and carbon performance.

Figure 4: **New analytical tools to select issuers on climate alignment**

Low carbon leader

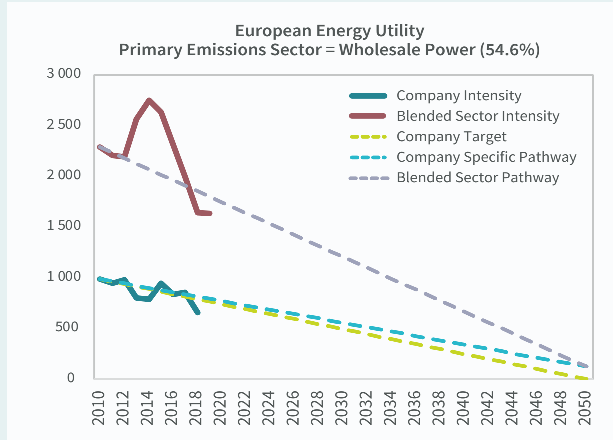
A European energy utility with very high absolute emissions, which would discourage investors with absolute emission targets, but has an industry-leading position which is aligned with a below 2 degree scenario scenario.

Relative to sector intensity: The company is less carbon intensive than peers (-58%). Here, we compare company intensity to sector average intensities based on company revenue exposure by sector (88% energy utilities and 12% water and gas utilities).

Relative to sector pathway: The company is also notably ahead of its sector pathway. Simplistic sector pathways were created by applying International Energy Agency B2D reduction requirements to historic industry intensities (Sector Decarbonisation Approach).

Relative to company pathway: It is also ahead of its specific pathway, which runs from its unique starting point to the sector target intensity at 2050.

Relative to company target: The company has an ambitious SBTi-approved target (-50% by 2025) and appears to be on course to meet this target.



Source: Factset, Trucost, IEA, Carbon Delta / MSCI, AXA IM

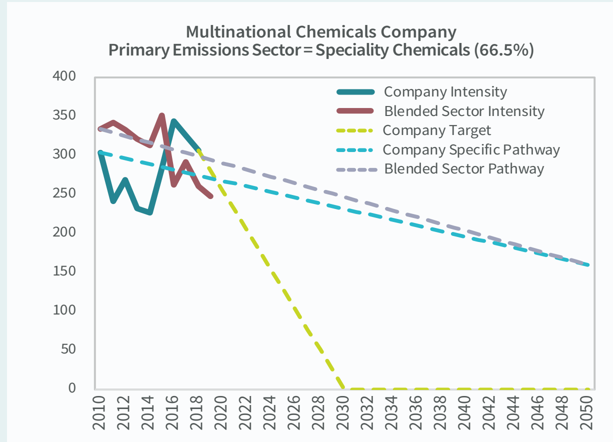
Transition leader

A global chemicals company with high absolute emissions above industry peers but with an ambitious carbon target which will be critical for the climate transition.

Relative to sector intensity: The company has higher carbon intensity than industry peers (+11%) although this has decreased over recent years.

Relative to sector and company pathway: It is aligned with the sector pathway but trails its company-specific pathway following a sharp increase in carbon intensity between 2014 and 2016.

Relative to company target: The company has a very ambitious carbon target (carbon neutrality by 2030) which will be critical if we are to limit global warming to B2D and they should be credited for that. However, the target is not SBTi-approved and performance should be monitored to ensure they meet this target. In the event the company falls behind they would be a target for engagement. To monitor performance against company targets we assume a linear reduction from base year to target year (2018-2020).



Source: Factset, Trucost, IEA, Carbon Delta / MSCI, AXA IM

Climate KPIs monitoring

Achieving alignment via investing also means monitoring and reporting on portfolio climate KPIs. This will be about better use of existing metrics but also developing new tools and analytics. Quantitative indicators should cover carbon footprints, identification of relevant pathways, exposure to specific taxonomy and contribution to overall climate-related goals. Qualitative assessments would allow more flexibility given the level and quality of climate-related disclosure.

Portfolios should be monitored alongside the following key dimensions to illustrate how aligned the investment decisions are with climate mitigation and the adaptation required to support the Paris goals:

6/ Reduce current portfolio carbon footprint in both absolute and relative terms taking into account future carbon emissions reduction potential, ultimately if it is in line with science-based pathways

7/ Maintain exposure to sectors at stake necessary to support transition

8/ Monitor exposure to green companies and climate solutions, using relevant taxonomy

9/ Monitor portfolios' and issuers' climate forward-looking KPIs such as temperature and low carbon transition credentials

10/ Monitor overall environment, social and governance and climate performance, including minimum climate standards

Investment Managers

Next steps

A commitment to action

Recent years have seen worldwide growing interest in Paris-aligned investing. As this interest has taken hold, new initiatives and frameworks have emerged to provide a foundation for new climate-aware investment approaches, and the industry has voiced greater commitment to incorporating these objectives into their processes.

We are optimistic in the ability of our industry to benefit from the abundance of tools and data. We are committed to assessing and integrating climate models but also in engaging with data providers and industry groups to refine these methodologies.

As developed in the recent TCFD Portfolio Alignment position paper[12], investors are beginning to move from commitment to action and they must make important decisions about what tools to use and how to deploy them.

At AXA Investment Managers, we propose to start from a set of principles guiding our decision-making and framing the selection of tools and KPIs to achieve portfolio alignment. We believe that by following these principles we can most effectively navigate the evolving landscape and constructively tackle the challenge of aligning our strategies with the Paris Agreement.

AXA IM joins the Net Zero Asset Managers Initiative[13]

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

In this content, AXA IM commits to support the goal of net zero greenhouse gas emissions by 2050, in line with global effort to limit warming to 1.5˚C. It also commits to support investing aligned with net zero emissions by 2050 or sooner. The results of this research paper will guide us in implementing this commitment.

12 See "Measuring Portfolio Alignment", Portfolio Alignment Team, TCFD. 2020. https://www.tcfdhub.org/wp-content/uploads/2020/10/PAT-Report-20201109-Final.pdf
13 Net Zero Asset Managers Initiative. https://www.netzeroassetmanagers.org/

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