



EU Climate Benchmarks

Overview Booklet

UN-CONVENED **NET-ZERO**
ASSET OWNER ALLIANCE



DESCRIPTION OF THIS OVERVIEW BOOKLET

Why is this booklet needed?

This booklet collects the research, the discussions and the key conclusions of the Climate Benchmarks Working Group. It is designed to help members of the Alliance to understand, what the EU Climate Benchmarks regulation is and which respective indices exist in the market.

What is in this booklet?

First, the booklet outlines the EU regulation on Climate Benchmarks to introduce the topic. In the further sections, a comparison between the regulation and the Target Setting Protocol, a comparison of the existing EU Climate Transition Benchmarks and the main comments of the Working Group can be found.

What do we suggest?

The booklet should be used with the respective EU regulation. We invite members to take the booklet as additional source in their decision process regarding the handling of Climate Benchmarks. The statements in the book are based on the discussions of the Working Group and do not claim to be correct or complete.

EXECUTIVE SUMMARY

The NZAOA has been looking at the growth of benchmarks or indices that have a climate target as an objective and set up a Climate Benchmark Working Group to study these. The motivation was to better understand various benchmarks and their objectives and how they differ. We would like to share our findings and recommendations with Asset Managers, data/service providers and relevant stakeholders. There are pros and cons to the adoption of climate benchmarks and much work needs to be done to establish market standards for both data and index construction. However, our work suggests that climate benchmarks can be a meaningful tool to manage an investment portfolio towards net zero.

This paper provides members with information about the various benchmarks that have been created. The working group focused on analysing EU Climate Transition Benchmarks, as closest aligned with the NZAOA target setting approach. Four EU Climate Transition Benchmarks have been analysed and compared in depth.

- We have compared the EU Climate Benchmark composition with the NZAOA target setting framework
- We have attempted to bring out the differences in the methodology and the resultant composition of the various EU Climate Transition benchmarks.
- We do not intend to recommend one index over another, as each asset owner will have their specific requirements.
- We would encourage NZAOA members to study the document and determine what factors are important for them.
- We further recommend members **engage** with their asset managers and index providers to establish which index would work for them and their specific requirements.
- We note that the indices have been developed in conjunction with the initial customers and their specific requirements but, nevertheless, will be a good starting point for further discussion with the providers.
- We note that the data for assessing emissions is relatively new and incomplete and that this can lead to problems and unintended consequences. However, we believe that through continuous engagement with companies, index providers and asset managers the invisible hand of the market will iron these out. The more these indices are used, the better the data will be, and the companies will understand the steps they need to take to access capital. This approach will lead to real world actions that will speed the journey to a net zero world.

The 'EU climate benchmarks and benchmarks' ESG disclosures' regulation will be revisited in 2022. With the aim to improve the existing framework, the Climate Benchmarks Working Group is going to discuss if to engage with the EU Commission to share any findings.



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OVERVIEW OF THE EU CLIMATE BENCHMARKS

Background & context

Definitions

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01

01 BACKGROUND & CONTEXT: REGULATORY FRAMEWORK

In February 2019, the European Parliament and Member States reached an Agreement on the creation of two new categories of low-carbon benchmarks: a Climate-transition Benchmark (EU CTB) and Paris-aligned Benchmark (EU PAB). To assist the implementation, the **European Commission set up a Technical Expert Group on Sustainable Finance (TEG)**.

The TEG defined minimum standards for the methodologies of EU Climate Transition and Paris-aligned Benchmarks as well as ESG disclosure requirements that shall be applicable to all investment benchmarks. In line with the **European Commission 2018 'Action Plan on Financing Sustainable Growth'**, the Technical Expert Group published the **'Climate benchmarks and benchmarks' ESG disclosures' report** in September 2019. The mandate of the TEG ended in September 2020. The TEG was replaced by the permanent advisory body.

In July 2020, the European Commission adopted new rules setting out minimum technical requirements for the methodology of EU climate benchmarks. The delegated acts were published in the Official Journal of the European Union December 2020 and entered into application.

01 BACKGROUND & CONTEXT: WORKING GROUP

The **Climate Benchmarks Working Group** met on a bi-weekly basis during the last 6 months. The group undertook the following steps to understand the Climate Benchmarks in detail and test its applicability:

- **Conducted a survey** among the members of the NZAOA
- **Discussed the details** of the 'EU climate benchmarks and benchmarks' ESG disclosures' regulation
- Compared the EU Climate Benchmarks regulation with the **Target Setting Protocol**
- **Carried out quantitative and qualitative research** among index providers that qualify for Climate Benchmarks.

01 OVERVIEW: EU TEG DEFINITIONS

A climate benchmark is defined as an investment benchmark that incorporates specific objectives related to greenhouse gas (GHG) emission reductions and the transition to a low- carbon economy — based on the scientific evidence of the IPCC — through the selection and weighting of underlying constituents. These benchmarks are intended to serve as labels that qualify indices to enhance the ESG transparency of benchmark methodologies and an initiative to put forward standards for the methodology of low-carbon benchmarks.

There are two new benchmarks:

- **EU Climate Transition Benchmark (EU CTB)**
- **EU Paris-Aligned Benchmark (EU PAB)**

Both benchmarks have the same criteria focussed on decarbonisation, but the thresholds are different. The second benchmark is aligned to the Paris Agreement goal to limit the increase in global average temperatures to well below 2°C above pre-industrial levels.

01 OVERVIEW: EU TEG MINIMUM BENCHMARK STANDARDS

The table below displays the minimum requirements of the two EU Climate Benchmarks:

		EU Climate Transition Benchmark (EU CTB)	EU Paris-Aligned Benchmark (EU PAB)
Risk oriented minimum standards	Carbon intensity reduction -> at inception (vs. parent index)	30%	50%
	Scope 3 phase-in	2-4 years	2-4 years
	Baseline exclusion	Yes (controversial weapons / societal norms violators)	
	Activity exclusion	No	Coal (1% + revenues) Oil (10% + revenues) Natural Gas (50% + revenues) Electricity producers (50% + revenues)*
Opportunity oriented minimum standards	Exposure to high impact sectors	Minimum exposure at least equal to parent benchmark value	
	Year-on-year self decarbonization	7%	7%
	Disqualification from label	2 consecutive years of misalignment	

01 OVERVIEW: EU TEG DISCLOSURE REQUIREMENTS

Specific disclosures are required for the climate benchmarks introduced by the regulation amending Regulation (EU) 2016/1011. The table below summarizes these disclosures.

Mandatory disclosure requirements
The exclusion criteria based on climate-related or other ESG considerations
Carbon intensity of the index (scope 1+2+3 phased in);
Disclosure of Year-on-Year decarbonisation trajectory, base year for calculation and achieved GHG emissions trajectory of the benchmark since creation
The degree to which the IPCC decarbonisation trajectory (1.5 degrees C with no or limited overshoot) has been achieved on average per year since creation
The type and source of data used to determine the decarbonisation trajectory, including: (i) Scope 1 emissions, (ii) Scope 2 emissions, (iii) Scope 3 emissions, in particular for sectors with high impact on climate change and its mitigation, (iv) whether the data uses the EU Product and Organisation Environmental Footprint methods, or, global standards such as TCFD
Required disclosures based on Annex III of Regulation amending Regulation (EU) 2016/1011
Climate change and its mitigation, (iv) whether the data uses the EU Product and Organisation Environmental Footprint methods, or, global standards such as TCFD
Qualitative Comment on Climate Tail Risks (i.e. downside deviations from the expectation with particular focus on tail risks)
Voluntary disclosure requirements
Measure of overlap between the EU CTB / EU PAB and its investable universe (asset-level calculated active share)

01 OVERVIEW: DIFFERENCE EU CTB AND EU PAB

Compared to EU CTBs, the EU PABs:

- Allow for a **higher decarbonisation** of the investment relative to the underlying investable universe (50% compared to 30%).
- Have **additional activity exclusions** on fossil fuels and electricity producers **with high GHG emissions**.

The **EU CTBs** are suitable for institutional investors such as pension funds and (re)insurance companies, whose objective is to *protect assets against investment risks* related to climate change and the *transition to a low-carbon economy*, labelled as transition risks by the TCFD.

The **EU PABs** are designed for institutional investors that want to be at the *forefront of the immediate transition towards a +1.5°C scenario*.

01 OVERVIEW: OBJECTIVES ACCORDING TO THE TEG

The main objectives of the new climate benchmarks are to:

- Allow a significant **level of comparability** of climate benchmarks methodologies while leaving benchmarks' administrators with an important level of **flexibility in designing their methodologies**
- Provide investors with an **appropriate tool** that is aligned with their investment strategy
- Increase **transparency on investors' impact**, specifically with regard to climate change and the energy transition
- **Disincentivize greenwashing.**

01 OVERVIEW: OBJECTIVES ACCORDING TO EU TEG

While benchmarks incorporating constraints or objectives related to GHG emissions have primarily been built around a (tail) risk reduction objectives, EU CTBs and EU PABs have broader ambitions. Investors using these new types of benchmarks not only intend to hedge against climate transition risks (Risk objective) but also have the ambition to direct their investments towards opportunities related to the energy transition (Opportunity objective).

In contrast, investors using the new EU CTBs and EU PABs can, at a portfolio level:

- Hedge against a wider array of climate transition risks:
 - **Policy and Legal Risk** For example, risks related to changes in the regulatory framework, like carbon pricing mechanisms or those related to litigation claims.
 - **Technology Risk** Impact of technological advancement in the transition to a low-carbon economy.
 - **Market Risk** Changes in supply and demand for goods and services.
 - **Reputation Risk** Arising, for example, through name and shame campaigns or corporate incidents (e.g. BP and Volkswagen).
- Direct investments towards opportunities in the energy transition. These broadly include products and services related to renewable energy and energy efficiency.

01 OVERVIEW: USE CASES ACCORDING TO TEG

- Underlying for passive and active **investment strategies**
e.g. Several asset managers have launched financial products tracking Climate Indices from providers
- An investment **performance benchmark for GHG** emission-related strategies
e.g. Managers can use the Climate Indices from providers as a performance benchmark and as a tool to understand the impact of climate related risks on the risk and return drivers of portfolios
- An **engagement tool**
e.g. Investors can use Climate Indices from providers to engage with companies as indices are rules based and transparent
- A policy benchmark to help **guide strategic asset allocation (SAA)**
e.g. An investor has adopted Climate Indices for several billions equities portfolio

01 OVERVIEW: LIST OF ALL THE CLIMATE TRANSITION BENCHMARKS

MSCI	Scientific Beta
https://www.msci.com/climate-change-indexes	https://www.scientificbeta.com/green/#/
MSCI ACWI Climate Change Index	SciBeta Global Climate Impact Consistent
MSCI World Climate Change Index	SciBeta Developed Climate Impact Consistent
MSCI EM Climate Change Index	SciBeta United States Climate Impact Consistent
MSCI Europe Climate Change Index	SciBeta Developed Europe Climate Impact Consistent
MSCI AC Asia Pacific Climate Change Index	SciBeta Japan Climate Impact Consistent
MSCI USA Climate Change Index	SciBeta Asia-Pacific ex-Japan Climate Impact Consistent
MSCI Japan Climate Change Index	SciBeta Global ex USA Climate Impact Consistent
MSCI USD HY Climate Change Corporate Bond Index	SciBeta Developed ex USA Climate Impact Consistent
MSCI USD IG Climate Change Corporate Bond Index	
MSCI EUR HY Climate Change Corporate Bond Index	
MSCI EUR IG Climate Change Corporate Bond Index	

FTSE Russell	S&P
https://www.ftserussell.com/products/indices/tpi-climate-transition	https://www.spglobal.com/spdji/en/index-family/esg/esg-climate/paris-aligned-climate-transition-pact/#indices
FTSE All-World TPI Transition ex Fossil Fuel ex Tobacco ex Controversies Index	S&P EuroUSAJapan 100 Net Zero 2050 Climate Transition Select 50 Point Decrement Index
FTSE All-World ex Japan TPI Climate Transition Index	S&P EuroUSAJapan 100 Net Zero 2050 Climate Transition Select Index
FTSE Developed TPI Climate Transition ex Coal ex Controversies ex Nuclear ex Tobacco Index	S&P Europe LargeMidCap Net Zero 2050 Climate Transition ESG Index
FTSE Developed ex Korea TPI Climate Transition Index	S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select 5% Decrement Index
Russell 1000 TPI Climate Transition Index	S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select 50 Point Decrement Index
FTSE Japan TPI Climate Transition Index	S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select Index
	S&P Eurozone 50 Net Zero 2050 Climate Transition Select 5% Decrement Index
	S&P Eurozone 50 Net Zero 2050 Climate Transition Select 50 Point Decrement Index
	S&P Eurozone 50 Net Zero 2050 Climate Transition Select Index
	S&P Eurozone LargeMidCap Net Zero 2050 Climate Transition ESG Index
	S&P France 20 Net Zero 2050 Climate Transition Select 5% Decrement Index
	S&P France 20 Net Zero 2050 Climate Transition Select 50 Point Decrement Index
	S&P France 20 Net Zero 2050 Climate Transition Select Index

COMPARISON WITH THE ALLIANCE TARGET SETTING PROTOCOL (TSP)

02

02 TSP COMPARISON: METHODOLOGY



In the next slides we compare the EU Climate benchmarks with 5 areas of the Target Setting Protocol:

- General
- Engagement targets
- Sector targets
- Sub-portfolio emission targets
- Financing transition targets

For the comparison we picked statements of the Target Setting Protocol and cited them. They were categorized according to the alignment of the EU Climate Benchmarks. The aim is to better understand, where the EU Climate Benchmarks are in line with the Alliance ambition, philosophy and target setting and where not.

02 TSP COMPARISON: OVERVIEW

Target type	Statement of the TSP	Alignment
General elements	There is currently limited empirical evidence showing how investor climate pledges, strategies and actions contribute to emission reductions in the real economy .	No
	The Alliance is committed to driving real world impact, primarily through engagement with corporates and policymakers as well as contributing capital required to finance the transition.	Partly
	For the period 2020–2025, Alliance members cover listed equity and publicly traded corporate debt and real estate holdings, adding additional asset classes as these become available .	Yes
Engagement targets	To define their 2025 Engagement Target(s) , individual Alliance members should identify either 20 companies with a focus given to the highest emitters or those responsible for 65% of their portfolio owned-emissions which do not already have Paris-Aligned business transition commitments .	Partly
	Divestment is the last resort in an engagement strategy where the requested change has not materialised.	No
	Alliance members should explore opportunities to support the growth of investment into Green Buildings, Renewable Energy in Emerging Markets, Sustainable Forestry and Agriculture, Green Hydrogen Fuel development.	Yes
Sector targets	Alliance members implementing sector targets will set sectoral targets in the first instance on Alliance priority sectors : (i) Energy, including Oil & Gas and Utilities; (ii) Transport (civil aviation, shipping and road); and (iii) Steel.	No
	Scope 3 to be included wherever possible.	Yes
	Understand and Assess Transition Pathways of sectors and companies.	No
Sub-portfolio emission targets	Sub-portfolio targets cover asset classes where credible methodologies and sufficient data coverage exist today.	Partly
	Member’s sub-portfolio targets should strive for carbon reductions in the range outlined above of -16% to -29% by 2025, using a FY2019 as baseline and FY2024 data as target year.	Yes
	Covers Portfolio Emissions Scope 1 & 2, tracking of Scope 3 .	Yes
	Absolute or intensity-based reduction against 2019 base year recommended.	Yes
Financing transition targets	Focus on renewable energy in Emerging Markets, Green Buildings, Sustainable Forests, and Green Hydrogen, among others.	Yes
	Contribute to activities enlarging the low carbon investment universe and building solutions.	Yes
	Grow Alliance investment portfolios’ investments in climate solution investments along-side decarbonizing.	Yes

➤ The details and reasoning behind the analysis can be found in the Annex

COMPARISON OF INDEX PROVIDERS

03

03 INDEX PROVIDER COMPARISON

To connect the EU Climate Benchmarks with the real economy, the Climate Benchmarks Working Group engaged with following index providers and compared their Climate Benchmarks:

- MSCI
- Scientific Beta
- FTSE Russell
- S&P

All the **providers stated above offer two types of Climate Benchmarks** aiming to fulfil the requirements of the EU Climate Benchmarks, namely a 'Climate Transition Benchmark' and and a 'Paris-Aligned Benchmark'.

In the meetings of the NZAOA Climate Benchmarks Working Group there was a **consensus that the Paris-Aligned Benchmarks are not aligned with the NZAOA Target Setting Protocol, as they foster divestment**. The NZAOA tries to engage on decarbonization with companies instead. Therefore, the NZAOA Climate Benchmarks **Working Group decided to only focus on Climate Transition Benchmarks**.

03 INDEX PROVIDER COMPARISON

Here is an extensive overview of the different benchmarks of the providers:

[Index Provider Comparison](#)

➤ for best readability to be downloaded and opened in Microsoft Excel Desktop

Further, there is a presentation available, which explains and discusses the Index Provider Comparison:

[Presentation Index Provider Comparison Pt. 1](#)

[Presentation Index Provider Comparison Pt. 2](#)

Additional explanations based on the discussion about the Index Provider Comparison can be found [here](#).

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Metric	MSP Developed Ex-Norm Climate Transition Index	MSP Developed (Large/Mid-Cap parent)	Differential Parent Climate Index SA	MSP Climate Transition Index	MSP Asset All World parent)	Differential Parent Climate FTSE	MSP World Climate Change	MSP World parent)	Differential Parent Climate Index MSCI	MSP FTSE Developed UK	MSP FTSE Developed EM parent)	Differential Parent Climate Index S&P	
2	Carbon intensity reduction or at inception	30%			33%			30%						
3	Scope 3 phase-in	From inception												
4	Baseline exclusion	Controversial weapons Societal norms violators (defined as Tobacco & Low UNIC score) SARM index is used to monitor public controversies			Controversial weapons Societal norms violators (defined as Tobacco & Low UNIC score) Fossil fuel SN Controversies			Controversial weapons ESG contemporary score of 0					Controversial weapons Tobacco Violations of fundamental ethical norms Violations of the non-harm one-side principle	
5	Activities exclusion	No			No			No					No	Fossil fuel activities incompatible with the Paris Agreement
6	Green / Brown share ratio or voluntary	1:1			1:1			1:1					1:1	
7	Exposure to high impact sectors	Minimum exposure at least equal to equity market benchmark value			Minimum exposure at least equal to equity market benchmark value			Minimum exposure at least equal to equity market benchmark value					Minimum exposure at least equal to equity market benchmark value	
8	Year-on-year self decarbonization	7% (with buffer)						7%					7%	
9														
10														
11	Total return (%)	35.07	34.47	90%	7.67	7.15	99%	22.1	20.9	90%	11.98	11.33	90%	
12	Total risk (%)	25.38	25.55	100%	24.82	24.89	100%	24.8	24.9	100%	24.79	24.44	98%	
13	Number of constituents	833	1820	199%	1383	1535	227%	1555	1834	109%	1345	1470	109%	
14	Trading error (%)	2.33	0		1.97	0		1.1	0		1.38	0		
15	Turnover (%)	34.32	n/a		12.8	10.17		8.3	7.5		20.6	7.8		
16	ESG score (0-100)	64	6.6		8.8	76.3		86	8.1		17.8	156.8		
17	Carbon Intensity Scope 1+2 (t CO2e/\$M revenue)	187	811	177%	151	281	186%	99	172	174%	17.8	156.8	201%	
18	Green / Brown revenues	12.1 / 1			2.09	1.45		2.8	2.8		0.48%	0.33%		
19	Quantitative metrics				→ Metric description: Green Revenue proportion of total revenue %	→ Metric description: Green Revenue proportion of total revenue %		→ Metric description: Ratio of WA (%) of "green revenue" to the WA (%) of "brown revenue"	→ Metric description: Ratio of WA (%) of "green revenue" to the WA (%) of "brown revenue"		→ Metric description: Positive Net Green Revenues (compares with only Net Green Revenues)	→ Metric description: Positive Net Green Revenues (compares with only Net Green Revenues)		
20	Time stamp (annualized / backward data assumption if historical data not available)	Dec 1992 to Mar 2021	Dec 1992 to Mar 2021		Sep 2011 to Mar 2020	Sep 2011 to Mar 2020		Nov 2013 to Apr 2021	Nov 2013 to Apr 2021		Jan 2013 to Dec 2020	Jan 2013 to Dec 2020		
21	No comparability among providers possible													
22	Overview: Index construction	The MSP AISC Index			Index description: Green Revenue proportion of total revenue %			Index description: Ratio of WA (%) of "green revenue" to the WA (%) of "brown revenue"			Index description: Positive Net Green Revenues (compares with only Net Green Revenues)	Index description: Positive Net Green Revenues (compares with only Net Green Revenues)		
23	Description: Index construction													
24	Data source(s)	Tranont / MSP / S&P ESG scores			SP Data			MSCI Data						

Image: Screenshot of the Index Provider Comparison

FINDINGS OF THE CLIMATE BENCHMARKS WORKING GROUP

Decarbonization

Engagement

Capital flows

Greenwashing

Data

Minimum requirements and regulation

Index construction

Advantages & disadvantages

04

04 FINDINGS OF THE CLIMATE BENCHMARKS WORKING GROUP

The **main findings** of the Working Group are listed on the next slides, divided into the following sections:

- Decarbonization
- Engagement
- Capital flows
- Greenwashing
- Data
- Minimum requirements and regulation
- Index construction
- Advantages & disadvantages

04 FINDINGS: DATA & DECARBONIZATION

Data

- The data is not consistent, but as indices with any sort of climate element become more widely used discrepancies will disappear.
- The assessment of forward- and backward-looking data must be transparent.
- It is difficult to get the carbon footprint of the indices at S&P and FTSE Russell, which is a key component.
- Just using emissions data might mean that investors ignore transition data. They might be using a backward-looking measure to make forward-looking investment decisions. Investors may miss risks and opportunities.
- Assessments/analysis of some index providers indicate they use a certain level of judgement. Transparency on the assessment is needed.
- The assessment and inclusion of Scope 3 emissions of an index should be transparent.

Decarbonization

- The decarbonization of companies should be trackable to trace the real-world impact and verify, if the emissions are reduced as expected.
- When investing, one should not focus companies with low emissions, but on companies that have credible transition plans with intermediary targets in place, which have to decarbonize

04 FINDINGS: MINIMUM REQUIREMENTS AND REGULATION

Minimum requirements and regulation

- A fixed decarbonization rate does not help to achieve real-world decarbonization, as it pushes capital to be re-allocated to lower-carbon companies, rather than decarbonizing companies.
- It cannot be expected that a steel company in Asia decarbonizes at the same rate and speed as an EU telecommunication company. Decarbonization is not linear and comes in multiple pathways and sizes. It is better to have consistent principles rather than consistent rules.
- From the practical experience of the investors, we know that we are quite far away from binary problems (green vs brown) and the solution is to have a look at the EU Taxonomy dynamically. The EU tends to favour a tick the box solution with their minimum requirements. Asset Owners should look beyond that, as there is a gap between what is required from the regulators vs. the decarbonization of the real-economy.
- There is not specific guidance to the Index Providers on how they should construct a Climate Benchmark in order to affect real-world decarbonization. However, the improvement in construction will come from broader use of indices and the invisible hand of the market.
- The index providers should disclose the carbon footprint at the index level. Otherwise, it is difficult for the Asset Owners to calculate its carbon footprint (absolute or intensity-based). Currently, some index providers simply take the average carbon footprint on the sector-level, which has a high level of inaccuracies. The EU should require this from index providers.
- The self-decarbonization rate has to be revised every 5 years, if it fails. Otherwise, the Net-Zero target by 2050 cannot be reached (e.g. If by 2030 the economy did not decarbonize at all, the self-decarbonization rate has to become higher to achieve Net-Zero by 2050.).

04 FINDINGS: ENGAGEMENT & CAPITAL FLOWS

Engagement

- The Alliance sees divestment as a last resort and encourages company engagement. The index structure should support the engagement process as companies realise what they need to do to increase their weighting in the indices
- The message to the company is that they receive less money, if they are neither decarbonizing or have a clear pathway to do so. In order to increase capital allocation from the climate indices, they have to fulfil the criteria of the Climate Benchmarks.

Capital flows

- The capital flowing into the Climate Indices of all the Index Providers is increasing exponentially
- The amount of capital flowing into green/ESG/transition is meaningful (\$392 billion flowed into MSCI ESG indices in 2020)
- Argument of weight of capital: If a growing amount of money flows into Climate Benchmarks, the price of companies in a Climate Benchmarks will rise. If companies don't adapt their businesses processes they will receive less capital.

04 FINDINGS: RISK OF GREENWASHING

Risk of greenwashing

- Most indices are focused on developed markets, while only some are focused on emerging markets. For successful transition, an **allocation of capital into emerging markets** is equally important.
- The Climate Benchmarks of the index providers must **weight sectors relevant to the transition sufficiently (e.g. energy utilities, rare earths and high-emitting sectors etc.)** – not the case with S&P and MSCI.
Quote FT article: Since considerable investment is necessary to ensure electrification of the economy and decarbonisation of electricity, underfunding of this sector in climate-aligned benchmarks, which can correspond to a reduction in capital allocation of up to 91 per cent, would constitute the most dangerous form of portfolio greenwashing.
- Companies with a deteriorating climate performance, should not be rewarded. Data can be misleading, as other companies in the same sector could be deteriorating quicker.
Quote FT article: Study found that 35 per cent of companies surveyed that had worsening environmental performance were rewarded with an increase in weight.
- Climate data should be an increasingly important driver of a stock weight.
Quote FT article: The paper found that climate data determines at most 12 per cent of each stock's weight in an ETF, with the remainder driven by market capitalisation
- The companies in a transition index should have a transition plan in place.

04 FINDINGS: INDEX CONSTRUCTION 1/3

Index construction 1/3

General remarks

- It is important to note that a **climate benchmark is neither a good thing or a bad thing**, in itself. The **devil is in the detail**.

Minimum carbon intensity reduction (EU CTB 30%, EU PAB 50%)

- There is no guidance or regulation from the EU on how the providers should implement this and it may be a blunt tool.
- The **reduction (30% / 50%) is at inception** and these values don't seem to be rebalanced
- **Usually done by exclusion** (baseline & activity-based)
- Year-on-year self decarbonization is mostly achieved by re-weighting

04 FINDINGS: INDEX CONSTRUCTION 2/3

Index construction 2/3

Strictness of EU Climate Benchmarks

- **EU Paris-Aligned Benchmark excludes too much** and therefore doesn't align with the engagement target of the Alliance Target Setting; so we rather focus on the EU Climate Transition Benchmark.
- **Transition Benchmarks are more in line with the philosophy of the Alliance.**

Reduction of investment universe happens through regression; it is not hand-picked.

- The three providers we are currently comparing use this method (MSCI, FTSE Russell, S&P)
- Impact of this mathematical approach: If we have to reduce 30% for the CTB or 50% for the PAB accordingly, **it doesn't have to come all from one stock. It can be split into percentages** (e.g. 20% from stock #1, 30% from stock #2, etc.). In other words, not necessarily whole companies have to be divested from.

04 FINDINGS: INDEX CONSTRUCTION 3/3

Index construction 3/3

Tracking error

- Some members **expect the tracking error from the parent index to the climate version to widen over time**, as the real economy does not decarbonize as much as required from the climate indices.
- The reason for that is the initial emission reduction of 30% or 50% coupled with index providers calling for self-decarbonization of 7%/year relative to their own index.
- If the parent benchmark is decarbonizing the exact same amount as the climate version, because the companies decarbonize in the real world, then the tracking error would remain equal (when all other conditions remain the same). But **if the real world is not decarbonizing the same amount as the climate version requires, it will impact the tracking error.**

04 FINDINGS: ADVANTAGES

Advantages of Climate Benchmarks, as discussed in the Working Group

- **Increasing use of these benchmarks will mean:**
- Companies recognize what they need to do to get a greater allocation of capital. They will “**improve their behaviour**” or speed their journey to decarbonisation
- Allocation of capital to climate leaders and will accelerate the transition and Corporates will move to a climate aligned path
- If benchmarks are tilted to encourage better behaviour in E, S and G, then their use **will lead to constantly improving ESG outcomes.**
- **Important considerations for the indices:**
- Low Tracking Error Volatility (TEV) to the parent index
- Low turnover
- Transparent, easy to follow and include some form of forward looking considerations instead of reweighting based on historical emissions.
- Sector neutral to the parent index. This avoids overweighting tech or healthcare and underweighting energy that might look good in a back test, but could introduce volatility.

It is important to note that many of the current raft of indices have been designed in conjunction with one asset owner. They have their specific requirements in mind and have various unexpected idiosyncrasies. As the asset owners, asset managers and index providers work together the invisible hand of the market will iron these idiosyncrasies out. The asset owners should not wait until somebody else designs the perfect index, but be involved from the beginning. As the index providers and asset managers realise the flow of money going into these products will only increase more resources will be allocated to the design.

04 FINDINGS: DISADVANTAGES

Disadvantages of Climate Benchmarks, as discussed in the Working Group

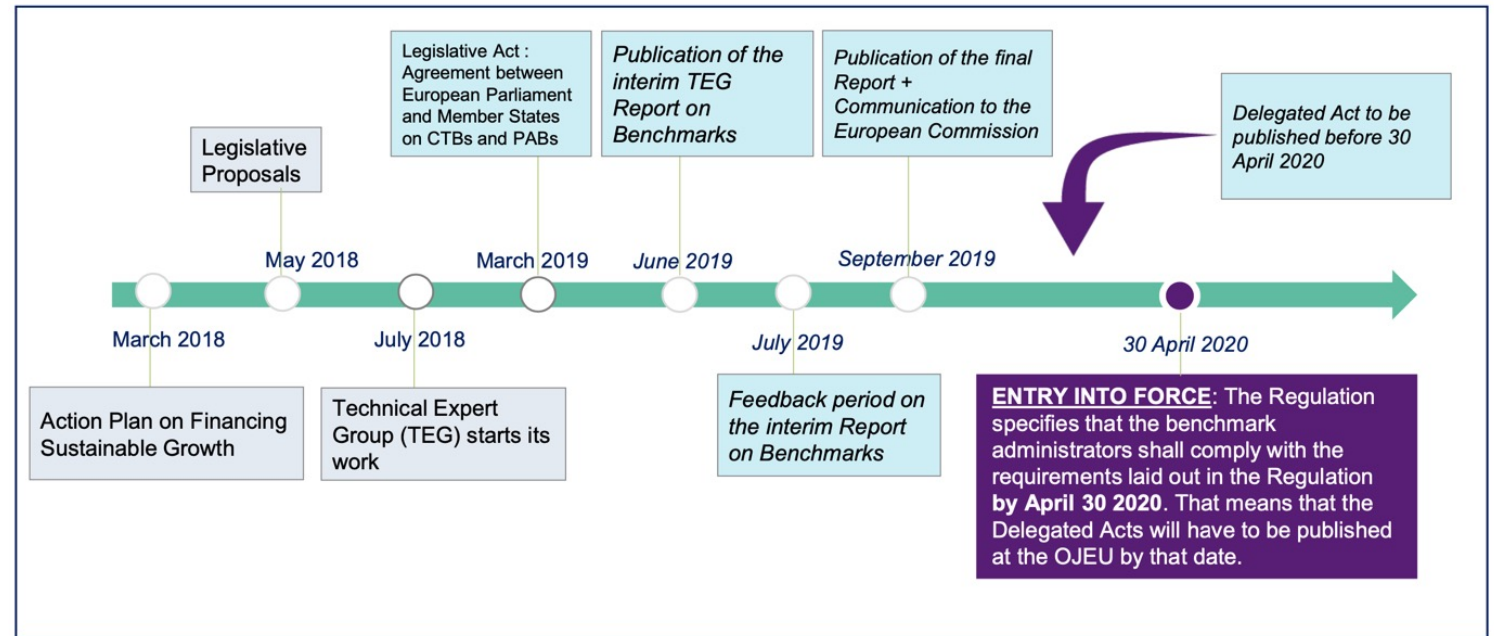
- Rule based, **sometimes construction too complex, not transparent.**
- Benchmarks **volatile in their construction, high turnover, high transaction costs** -> long term strategy preferred
- Climate benchmarks with **too high deviation to parent universe** – EU Climate Benchmarks forcing 7% carbon emissions reduction annually increases this deviation, instability and high turnover especially when real economy does not decarbonizes the same pace.
- **Divestment implications** – laggards need to be sold, as excluded from benchmark, engagement potential gone. Although you can still engage with a company to say what they need to do to get an investment in that particular portfolio.
- Starting points of investment portfolios different therefore the portfolio's transitions vary

NEXT STEPS

05

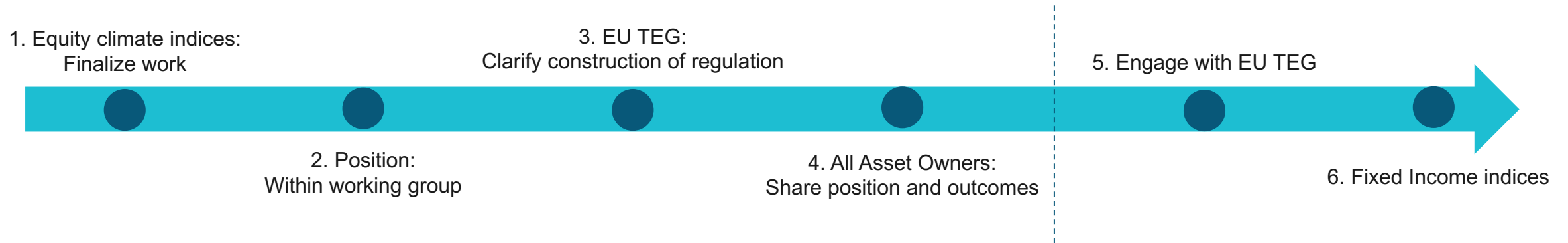
05 NEXT STEPS OF THE REGULATION

The ‘Sustainable Finance TEG final report on Climate Benchmarks’ the next step: “By 31 December 2022, the Commission shall review the minimum standards of the benchmarks referred to in Article 23a and 23b in order to ensure that the selection of the underlying assets is coherent with environmentally sustainable investments as defined by a Union-wide framework.”



Source: Natixis EU Climate Benchmarks special report, November 2019

05 NEXT STEPS OF THE ALLIANCE



Details on the roadmap:

1. Finalize work on Equity climate indices
 - Answers to our questions from index providers
 - Results quantitative research
2. Elaborate position within Climate Benchmarks working group
 - What do we agree on?
 - What do the Asset Owners decide for themselves?
3. Talk to the EU TEG to clarify construction of the EU Climate Benchmarks regulation (e.g. Why 30% baseline reduction)
4. Create document with the position and outcomes of the working group to share with all Asset Owners

Possible steps for a later stage:

5. Engage with the EU TEG
6. Evaluate Fixed Income indices

ANNEX

Details on TSP comparison

Overview and comments on capital flows

Comments on the index provider comparison

Survey outcomes

DETAILS ON TSP COMPARISON: GENERAL ELEMENTS

Target type	Statement of the TSP	Alignment	Reasoning
General elements	There is currently limited empirical evidence showing how investor climate pledges, strategies and actions contribute to emission reductions in the real economy.	No	The EU Regulation tries to connect the EU CB to empirical target setting, whereas the TSP recognizes the limits due to the methodological uncertainty and the relatively short period over which such investor activities have been undertaken. While mechanisms and strategies may contribute to lowering investment risks, meeting customer demands or supporting climate targets, they do not contribute equally to lowering emissions in the real economy.
	The Alliance is committed to driving real world impact, primarily through engagement with corporates and policymakers as well as contributing capital required to finance the transition.	Partly	The EU Climate Benchmarks support the process of contributing capital, but limit the possibilities of engagement through the relatively high carbon intensity reduction at inception (EU CTB 30% / EU PAB 50%), which requires the exclusion of companies.
	For the period 2020–2025, Alliance members cover listed equity and publicly traded corporate debt and real estate holdings, adding additional asset classes as these become available.	Yes	This target is fully aligned with the EU Climate Benchmarks.

DETAILS ON TSP COMPARISON: ENGAGEMENT TARGETS

Target type	Statement of the TSP	Alignment	Reasoning
Engagement targets	To define their 2025 Engagement Target(s), individual Alliance members should identify either 20 companies with a focus given to the highest emitters or those responsible for 65% of their portfolio owned-emissions which do not already have Paris-Aligned business transition commitments .	Partly	Here again, the EU Climate Benchmarks limit the engagement possibilities, as the highest emitters are excluded due to the required intensity reduction.
	Divestment is the last resort in an engagement strategy where the requested change has not materialised.	No	Both benchmarks require divestment of companies with the carbon intensity requirement, the activity exclusion and the year-on-year self-decarbonization.
	Alliance members should explore opportunities to support the growth of investment into Green Buildings, Renewable Energy in Emerging Markets, Sustainable Forestry and Agriculture, Green Hydrogen Fuel development.	Yes	The EU Climate Benchmarks are focusing on opportunities and not only on risks, which aligns with the statement of the TSP.

DETAILS ON TSP COMPARISON: SECTOR TARGETS

Sector targets	Alliance members implementing sector targets will set sectoral targets in the first instance on Alliance priority sectors: (i) Energy, including Oil & Gas and Utilities; (ii) Transport (civil aviation, shipping and road); and (iii) Steel.	No	The EU Climate Benchmarks don't recommend sectoral targets. There are only recommendations on exclusions for the PAB of companies with revenues above a certain threshold (e.g. coal >1%).
	Scope 3 to be included wherever possible: Due to data availability and lack of consistent metrics for Scope 3 within the oil and gas sector, we do not currently recommend setting carbon-intensity based Scope 3 sector targets for oil and gas in the short term. To ensure that we have better, comparable Scope 3 data for the next target setting period, the Alliance will work to clarify the definition of Scope 3 emissions and provide open source data for the largest oil and gas companies within 3 years.	Yes	The EU Climate Benchmarks require a 2-4 years phase-in of scope 3 emissions, wherever possible.
	Understand and Assess Transition Pathways of sectors and companies.	No	Only reflects a snapshot in time. It doesn't respect the development or transition (e.g. companies that reduced their carbon footprint significantly in recent years, or companies who set strong reduction targets for the upcoming years).

DETAILS ON TSP COMPARISON: SUB-PORTFOLIO EMISSION TARGETS

Target type	Statement of the TSP	Alignment	Reasoning
Sub-portfolio emission targets	Sub-portfolio targets cover asset classes where credible methodologies and sufficient data coverage exist today.	Partly	The EU Climate Benchmarks currently only focus on Stocks and Bonds. Other classes, which are robust enough in the resources and tools to assess their alignment, are not yet covered (e.g. sovereign-debt).
	Member's sub-portfolio targets should strive for carbon reductions in the range outlined above of -16% to -29% by 2025, using a FY2019 as baseline and FY2024 data as target year.	Yes	This target is fully aligned with the EU Climate Benchmarks due to the year-to-year self decarbonization of 7%.
	Covers Portfolio Emissions Scope 1 & 2, tracking of Scope 3.	Yes	This target is fully aligned with the EU Climate Benchmarks.
	Absolute or intensity-based reduction against 2019 base year recommended a) Alliance members may set targets on the basis of absolute carbon emissions or emission intensity. The Alliance recommends reporting both absolute and intensity based KPIs. b) If an Intensity-based metric is reported, it is recommended that either Revenue or EV/EVIC is used.	Yes	This target is fully aligned with the EU Climate Benchmarks. It recommends both absolute and intensity based KPIs and to use either revenue or EV/EVIC as a metric.

DETAILS ON TSP COMPARISON: FINANCING TRANSITION TARGETS

Target type	Statement of the TSP	Alignment	Reasoning
Financing transition targets	Focus on renewable energy in Emerging Markets, Green Buildings, Sustainable Forests, and Green Hydrogen, among others.	Yes	The EU Climate Benchmarks are focusing on opportunities and not only on risks, which aligns with the statement of the TSP.
	Contribute to activities enlarging the low carbon investment universe and building solutions.	Yes	This is one of the main targets of the EU Climate Benchmarks.
	Grow Alliance investment portfolios' investments in climate solution investments along-side decarbonizing by a) reporting on this progress b) developing a principle-based climate solution investment reporting framework reviewing existing methodologies and criteria e.g. the green bond principles, EU taxonomy, real estate certificates, etc.	Yes	This target is fully aligned with the EU Climate Benchmarks, because they are principle-based using the EU taxonomy as a basis.

OVERVIEW OF CAPITAL FLOWS

Scientific Beta	ESG indices (as per June 21)	28'350	45%	n/a
	Non-ESG Indices (as per June 21)	34'650	55%	
	Total AUM (as per June 21)	63'000	100%	
FTSE Russell	Sustainable Investment Indices (Passive AUM as per Dec 20)	136'105	5%	In Dec 2019: 2%
	Market Cap Fund (Passive AUM as per Dec 20)	2'767'000	95%	
	Total AUM (Passive as per Dec 20)	2'903'105	100%	
	Sustainable Investment Indices (Active AUM as per Dec 20)	8'662	0.07%	In Dec 2019: 0.06%
	Market Cap Fund (Active AUM as per Dec 20)	13'151'000	99.93%	
	Total AUM (Active as per Dec 20)	13'159'662	100%	
MSCI	Climate Indices (as per Aug 21)	5'100	n/a	In Dec 2020: 1'800
	ESG ETF (as per Aug 21)	180'000	n/a	In Dec 2020: 104'000
	All ESG & Climate indices (as per Dec 20)	392'000	n/a	In Dec 2019: 223'000
	Total AUM	n/a	n/a	
S&P	Paris-Aligned and Climate Transition Indices (as per Aug 21)	1'286	n/a	n/a
	Total AUM	n/a	n/a	

COMMENTS ON CAPITAL FLOWS

- There is a trend of a growing amount of capital flowing into the Climate indices of the 4 Index Providers
- The amount of capital flowing into green/ESG/transition is not irrelevant anymore (e.g. \$392 billion flowed into MSCI ESG indices in 2020 / New York State to invest in other low carbon strategies soon, following \$2bn allocation to FTSE Russell's transition index).
- Argument of weight of capital: If a growing amount of money flows into Climate Benchmarks the price of companies in a Climate Benchmark will rise. If companies don't adapt their businesses processes to the way, where money is flowing into, they will starve capital.

COMMENTS ON THE INDEX PROVIDER COMPARISON

Within the Working Group there was a discussion after the presentation about the different index providers. These were the main comments:

- Main message to the companies in the real economy: There is **a growing amount of money being put to work against these indices**
- The 4 indices are slightly different, but by large, they are **penalizing companies that emit a lot of carbon and don't have a decarbonization pathway**
- **All the approaches make sense with their reasoning**

SURVEY OUTCOMES

There was a survey conducted to understand the different philosophies of the members towards Climate Benchmarks and why different methodologies are applied.

On the next slides there are the answers of the members, which should help to deepen the understanding applied in practice on Climate Benchmarks.

The survey consists of 12 questions and a total of 13 NZAOA members participated.

SURVEY OUTCOMES

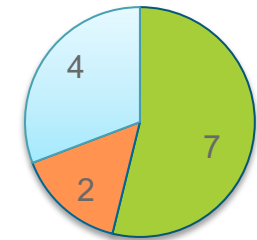
Why are Climate Benchmarks important?

- **Tool to monitor and align** portfolios with Paris Agreement
- **Basis for strategic asset allocation and long-term passive investments**
- Helps to **assess climate related risk** (both inside-out and outside-in)
- Serves as **strategy for engagement process & last resort divestment**
- **Encourages companies to reduce emissions** by carrot and stick method and strive for inclusion
- **(Benchmarks serve as a proxy for the global economy)**
- **Promotes market discipline and comparability within the benchmark (but not between different providers)**
- **Avoids greenwashing** through the transparency regarding the impact of investments

SURVEY OUTCOMES

Do the Climate Benchmarks trigger a change in the investment behavior?

- Foster investors towards portfolios with lower carbon emissions
- They serve as investment universe, which attracts money towards those companies included in the indices
- Integrate climate risks into investment processes
- Only if widely adopted

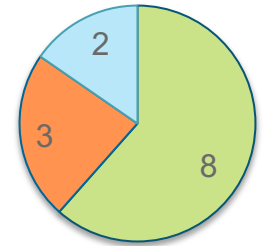


■ Yes ■ No ■ Undecided

SURVEY OUTCOMES

Do you have relevant concerns towards Climate Benchmarks?

- Promoting a **binary approach** (e.g. only identify deep-green activities) is unhelpful
- **Each Asset Owner has to decide his decarbonization trajectory based on their targets**
- **Risk of inter-activities reallocation** to meet the 7% figure
- May not give a picture of a fully covered worldwide portfolio as we see **strong tilts towards specific sectors**
- Design of PAB is **too elaborated for passive, rules-based strategy**
- During market distress (e.g. 2008) the set of rules may not be able to solve automatically
- **Exclusion of the Energy sector of the PAB indices.** They have a **transition role to play** (e.g. Gas or actors moving into Renewables)
- Concentrated nature of 'left tail' (extreme emission intensities) and 'right tail' (transition enablers) can lead to severe **crowding and extreme valuations** (on the downside or upside)



■ Yes ■ No ■ Undecided

SURVEY OUTCOMES

Are some of the criteria of the EU benchmarks not appropriate in your opinion?

- Any hardcoded target parameters in strategies expected to drive large asset flows driving concerns of technical flows aimed to comply with criteria and **not driven by fundamental considerations**.
- The **constraint on green-to-brown constraint is of special concern**, especially given the **scarcity of 'green assets'** and the state of corporate disclosure in this area.
- The relative decarbonization target **forcing a minimum reduction in emissions intensity is another area of concern**. The constraint will become increasingly harder to comply as the market index, as we hope, becomes more efficient, and perhaps **driving flows away from areas where decarbonization is indeed more challenging** to achieve and require capital and **support 'best in class' actors**.



■ Yes ■ No ■ Undecided

SURVEY OUTCOMES

Do you have ideas on how to improve existing Climate Benchmarks?

- The benchmarks should be clear in what they are aiming to achieve. **They should be rules based and easy to follow.**
- **AOs encourage comparability, standardization and consistency of climate benchmarks**
- In relation to previous question: there is no perfect carbon intensity metrics, but having the possibility to choose between different denominators would have been welcomed.
- Greater focus on **investment diversification**, more diversity in climate KPIs with a focus on management execution of climate strategy, quality of climate disclosure, **more integration of "traditional finance"** insights with climate KPIs.



■ Yes ■ No ■ Undecided

SURVEY OUTCOMES

Does your organization have a general philosophy on how you handle Climate Benchmarks?

- Climate benchmarks provide additional information which can be used alongside, either qualitatively or quantitatively, other traditional financial metrics to make informed investment decisions.
- **We rely on conventional benchmarks** so far in order to fulfill our legal duty of a balanced worldwide portfolio.
- We believe that the current cap weighted benchmarks are representative of the old dirty economy that we have and not the future clean economy that we need. **So, we are willing to accept tracking error as we move away from the old standards.**

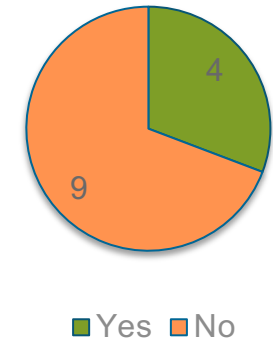


■ Yes ■ No ■ Undecided

SURVEY OUTCOMES

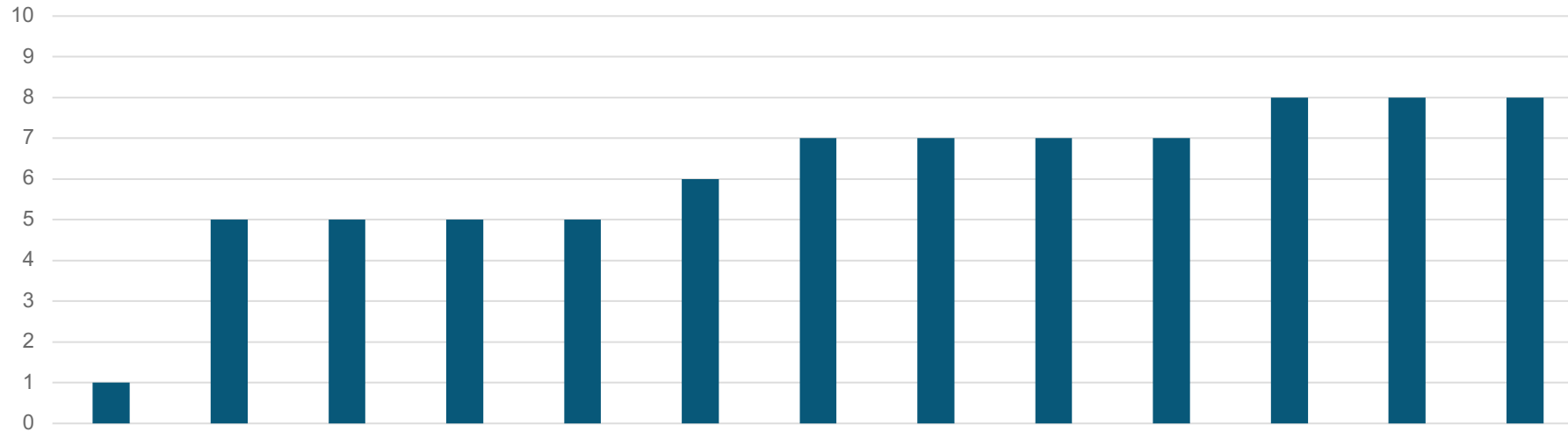
Are climate benchmarks applied in your organisation's investment portfolios?

- **Not yet**, but we **will move eventually some passive mandate towards climate benchmarks**.
- It is **under consideration**, but not yet formally decided.
- As an **active investor we do not limit ourself to any benchmark**, as they are only utilized as a performance reference. Instead we have an investment philosophy to invest in companies with long-term business models. Hence, we end up with companies that score high on ESG.
- **No adequate climate benchmarks yet available.**
- **1. Additional complexity in integrating in asset liability framework** (capital market assumptions, scenarios,..) **2. Scalability of strategies especially when focused on 'solutions'**
- We originally integrate climate exchange issues.
- **So far only in terms of internal analysis and ESG benchmarking**
- "We are currently reviewing the Climate Transition and Paris Aligned Benchmarks from S&P, FTSE and MSCI. I quite like the **Climate Transition benchmark from FTSE because of their partnership with the Transition Pathways Initiative.** / No, but we have the FTSE TPI Climate Transition benchmark, which was commissioned by the Church of England, under due diligence."

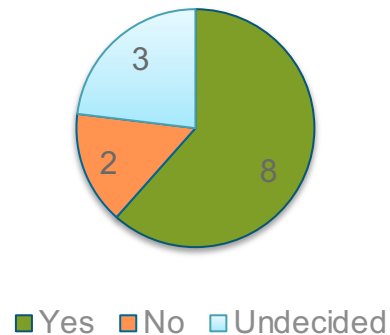


SURVEY OUTCOMES

On a scale from 1 to 10, how important are Climate Benchmarks for your organisation?



Are the benchmarks in line with the Alliance target setting and philosophy?



SURVEY OUTCOMES

Do you have any ideas from your side how to integrate net zero pathways in benchmark design – taking into account science based transition paths?

- As we have indicated benchmarks in itself do not steer our investment flows, instead it is **steered by our active investment philosophy and climate related targets.**
- **Directionally moving towards net zero: yes**, and variation of EU benchmarks achieve this outcome; Building a portfolio with 100% assurance of net zero outcome: No.
- **Relevant benchmarks rely strongly on a set of exclusion criteria which may be replaced by a stronger focus on industry-specific pathways (OECD)**
- **Engagement** with a path to escalation and divestment from our highest emitting assets and with our largest external manager relationships. **A commitment to investments in financing the transition. Advocacy with our industry and other key stakeholders.**

SURVEY OUTCOMES

Do you have further comments and insights to share?

- We have established a benchmark that we are using for our passive US equities to begin with.
- **I don't think climate benchmarks are required to achieve the targets of the Alliance but they may be helpful for asset managers.**
- "Net Zero pathway investing" compounds several sources of uncertainty (climate science, policy, corporate strategy), adding to the complexity of the already complex task of capital allocation. Managing requires targets but criteria used in the EU climate benchmark framework are **excessively normative with hardcoded thresholds to be complied with on a hardcoded calendar basis**
- I would like to make you aware of this initiative funded by the Hewlett Foundation, the largest climate grantmaker in the United States: <https://www.responsible-investor.com/articles/passive-investing-presents-a-challenge-for-decarbonisation-here-are-six-projects-we-re-backing-to-help-change-things>