

# **Bloomberg Hydrogen ESG Index Methodology**

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**Bloomberg**

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## Introduction

The Bloomberg Hydrogen ESG Index (the "Index") is constructed to track the performance of companies with exposure to the production of green hydrogen, equipment and supporting technology to produce or enable its use, and end-markets with the greatest potential. In addition, securities must meet certain minimum ESG standards.

## Section 1: Overview

Name	Bloomberg Hydrogen ESG Index
Base date	2015-03-30
Inception Date	2022-11-07
Rebalance	Quarterly
Publication	Weekdays
Currency	USD
Tickers	BHJENE (Price Return) BHJENET (Total Return) BHJENEN (Net Return)

## Section 2: Index Eligibility Process

### Parent Universe

To be selected for the Bloomberg Hydrogen ESG Index, a security must be a member of the Bloomberg Hydrogen Benchmark Index.

Please refer to the Bloomberg Hydrogen Benchmark Index Methodology through the link below for additional details on its construction.

[Bloomberg Hydrogen Benchmark Index Methodology](#)

### ESG Eligibility

Securities are screened for any involvement in controversial ESG activities. Data for controversial ESG categories is sourced from ESG data provider, Sustainalytics. The table below outlines the various ESG exclusions that are screened as a part of this Index as well as the thresholds that are used to exclude companies with controversial ESG activities.

If a security/issuer is included in Sustainalytics research coverage for at least one of the ESG screens listed below, the Index will deem such security/issuer as eligible for inclusion, provided it meets the relevant Index eligibility rules. A security/issuer will otherwise not be eligible for inclusion in the Index.

Category	Description	Exclusion Criteria
Civilian Firearms	Companies that manufacture and sell assault weapons to civilian customers, manufacture and sell small arms to civilian customers, manufacture and sell small arms to military and law enforcement, or manufacture and sell key components of small arms.  Companies involved in the retail and/or distribution of assault weapons or small arms.	Companies that have any involvement in the manufacturing and selling of small arms or assault weapons or key components of small arms to civilian customers and/or military and law enforcement are excluded from the Index.  In addition, companies that have 5% or more revenue from the retail and/or distribution of small arms or assault weapons are excluded from the Index.
Controversial Weapons	Companies involved in a core weapon system or components and services of a core weapon system that are either tailor-made and essential or non-tailor made and non-essential for the lethal use of the weapon.	Companies that have any involvement in the core weapon system or components and services of the core weapon system, including significant ownership, tailor-made, and non-tailor made, are excluded from the Index.

<p>Military Contracting</p>	<p>Companies that manufacture military weapon systems and/or integral, tailor-made components of these weapons</p> <p>Companies that provide tailor-made products and services that support military weapons.</p>	<p>Companies that, in aggregate, generate 10% or more revenue from the manufacturing of military weapon systems, components of these weapons, or tailor-made components of these weapons are excluded from the Index.</p>
<p>UNGC/OECD Guidelines</p>	<p>Companies that benchmark administrators find in violation of the United Nations Global Compact (UNGC) principles or the Organization of Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises</p>	<p>Excludes companies that are non-compliant following UNGC guidelines or companies that have been identified being either high or severe violators of the following societal norms:</p> <ul style="list-style-type: none"> <li>- Access to basic services</li> <li>- Accounting and taxation <ul style="list-style-type: none"> <li>- Animal welfare</li> </ul> </li> <li>- Anti-competitive practices</li> <li>- Bribery and corruption <ul style="list-style-type: none"> <li>- Business ethics</li> </ul> </li> <li>- Community relations</li> <li>- Corporate governance</li> <li>- Occupational health and safety <ul style="list-style-type: none"> <li>- Intellectual property</li> <li>- Labor relations</li> </ul> </li> <li>- Lobbying and public policy <ul style="list-style-type: none"> <li>- Marketing practices</li> <li>- Media ethics</li> </ul> </li> <li>- Data privacy and security <ul style="list-style-type: none"> <li>- Quality and safety</li> <li>- Resilience</li> <li>- Sanctions</li> </ul> </li> <li>- Social impact of products <ul style="list-style-type: none"> <li>- Weapons</li> </ul> </li> <li>- Employees - human rights</li> <li>- Society - human rights</li> </ul>
<p>Environmental Objectives</p>	<p>Companies that are found to significantly harm one or more of the environmental objectives referred to in Article 9 of Regulation (EU) 2020/852 of the European Parliament and of the Council.</p>	<p>This requirement is estimated by excluding companies that have been identified being either high or severe violators of the following controversies as they pertain to the environment:</p> <ul style="list-style-type: none"> <li>- Community relations</li> <li>- Land use and biodiversity</li> <li>- Emissions, effluents, and waste</li> <li>- Energy use and GHG emissions</li> <li>- Environmental impact of products <ul style="list-style-type: none"> <li>- Lobbying and public policy <ul style="list-style-type: none"> <li>- Water use</li> </ul> </li> <li>- Carbon impact of products</li> </ul> </li> </ul>
<p>Tobacco</p>	<p>Companies that manufacture tobacco products, supply tobacco-related products and services, or derive revenue from the distribution and/or retail sale of tobacco products.</p>	<p>Companies that have any involvement in the manufacturing of tobacco products are excluded from the Index.</p> <p>Companies that have 5% or more revenues from supplying tobacco-related products and services or the distribution and/or retail sale of tobacco products are also excluded from the Index.</p>

Unconventional Oil & Gas	Companies that extract oil sands, involved in shale energy exploration and production, or involved in oil and gas explorations in the Arctic regions.	Companies that have 5% or more revenues from extracting oil sands, shale energy exploration and production, or oil and gas exploration in the Arctic regions are excluded from the Index.
Thermal Coal	Companies that extract thermal coal, generate electricity from thermal coal, or have generating capacity for thermal coal.	Companies that generate 5% or more revenue from the extraction of thermal coal or generating electricity from thermal coal are excluded from the Index.  In addition, companies that have thermal coal generating capacity more than 15% are also excluded from the Index.
Oil & Gas	Companies involved in oil and gas exploration, production, refining, transportation, and/or storage.  Companies that provide tailor-made products and services that support oil and gas exploration, production, refining, transportation, and/or storage.  Companies that generate electricity from oil and/or gas.	Companies that generate 25% or more revenue from being involved in or providing tailor-made products and services that support oil and gas exploration, production, refining, transportation, and/or storage are excluded from the Index.  Companies that also generate 25% or more revenue from electricity derived from oil and/or gas are also excluded from the Index.
Nuclear	Companies that produce nuclear power.	Companies that generate 10% or more revenue from the production of nuclear power are excluded from the Index.

### Section 3: Index Construction Process

#### Index Selection Process

All securities that satisfy the Index Eligibility Process in Section 2 are eligible for inclusion in the Index.

If less than 20% of securities are excluded from the Bloomberg Hydrogen Benchmark Index from the ESG exclusions, then securities with the worst ESG Score according to data from Sustainalytics will be excluded until at least 20% of securities are excluded from the Bloomberg Hydrogen Benchmark Index.

#### Index Weighting

The Index is modified equal weighted. The initial weights,  $W_i$ , are assigned as follows.

$$W_i = \frac{1}{M}$$

The initial weights are then adjusted such that securities part of the Gold tier as determined by Bloomberg Intelligence Theme-Basket Committee have their weight multiplied by 2 as follows.

$$WM_i = W_i * \{2 \text{ if security } i \text{ is part of Gold tier, } 1 \text{ for all other securities}\}$$

The adjusted initial weight,  $WM_i$ , is then normalized such that:

$$WM_i = \frac{WM_i}{\sum_1^M WM_i}$$

Next, an index member's free float market cap weight is determined such that:

$$WFMC_i = \frac{FMC_i}{\sum_{i=1}^n FMC_i}$$

A security cap is set for each Index member as follows.

$$cap_i = 5 * WFMC_i$$

In other words, a security's final weight cannot exceed 5 times its free float market cap weight. A security whose adjusted initial weight as defined above exceeds 5 times its free float market cap weight will have its final weight equal to 5 times its free float market cap weight. Any excess weight from capping is then proportionally distributed to the remaining uncapped securities as follows.

$$totalWeightOfCaps = \sum_{i=1}^M cap_i \text{ for } WM_i \geq cap_i$$

$$totalWeightNotCapped = \sum_{i=1}^M WM_i \text{ for } WM_i < cap_i$$

$$WF_i = \begin{cases} cap_i, & WM_i \geq cap_i \\ \frac{WM_i \times (1 - totalWeightOfCaps)}{totalWeightNotCapped}, & WM_i < cap_i \end{cases}$$

The above step is repeated until no security's final weight exceeds 5 times its free float market cap weight.

Where:

$W_i$	Initial weight of security i
M	Number of Index members
$WM_i$	Modified initial weight of security i
$FMC_i$	Free float market capitalization of security i
$WFMC_i$	Free float market capitalization weight of security i
$cap_i$	The security cap applied to security i
$totalWeightOfCaps$	The total weight of all the securities whose modified initial weight exceeds 5 times their free float market cap weight
$totalWeightNotCapped$	The total weight of all the securities whose modified initial weights is less 5 times their free float market cap weight
$WF_i$	Final weight of security i

## Index Rebalance and Reconstitution

The Index is reconstituted and rebalanced quarterly in March, June, September, and December.

### Selection Date

The Index Eligibility Process is applied using data as of the last Wednesday in January, April, July, and October. ESG Eligibility is applied using data as of the 1<sup>st</sup> Wednesday in January, April, July, and October.

### Index Share Determination Date

Float Shares are determined using Shares Outstanding and Free Float as of the last Wednesday in January, April, July, and October. Index Weighting is determined using prices as of three weeks prior to the Index Effective Date.

### Index Announcement Date

An Index reconstitution and rebalance announcement date shall be the last Wednesday in February, May, August, and November.

### Index Effective Date

The Index reconstitutions and rebalances go effective after the close of trading on the 2<sup>nd</sup> Wednesday in March, June, September, and December, respectively.

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Selection Date (Eligibility)	Last Wednesday	X			X			X			X		
Selection Date (ESG Eligibility)	1 <sup>st</sup> Wednesday	X			X			X			X		
Selection Date (Weighting)	3 Weeks Prior to Effective Date		X			X			X			X	
Announcement Date	Last Wednesday		X			X			X			X	
Effective Date	2 <sup>nd</sup> Wednesday			X			X			X			X

## Section 4: Index Maintenance

### Index Calculation

Refer to the [Bloomberg Global Equity Indices Methodology](#) for index calculation details.

### Deletion Policy

Index securities are not deleted outside Index Rebalance and Reconstitution window except in the case of a delisting.

### Addition Policy

Index securities are not added outside of the Index reconstitution.

### Replacement Policy

Index securities are not replaced outside of the Index reconstitution.

### Corporate Actions

Refer to [Bloomberg Global Equity Indices Non-Market Cap Corporate Action Methodology](#) for the treatment of corporate actions.

## Section 5: Risks and Limitations

### Risks

The following is a summary of certain risks associated with the Index but is not meant to be an exhaustive list of all risks associated with the Index. Although the Index is designed to be representative of the markets it is measuring, it may not be representative of every use case. There is also inherent, though transparent, judgment in its construction, as outlined in this Methodology. The Index is designed for general applicability and not to address the individual circumstances and needs of users. BISL does not advise about the usefulness of the Index to a particular circumstance; users are therefore encouraged to seek their own counsel for such matters. This Methodology is subject to change, which may impact its usefulness to users. Although efforts will be made to alert users of any change, every individual user may not be aware of them. Such changes may also significantly impact the usefulness of the Index. BISL may also decide to cease publication of this Index. BISL maintains internal policies regarding user transitions, but no guarantee is given that an adequate alternative is available generally or for a particular use case. Markets for stocks, as with all markets, can be volatile. As the Index is designed to measure this market, it could be materially impacted by market movements, thus significantly affecting the use or usefulness of the Index for some or all users. Also, certain equity markets are less liquid than others – even the most liquid markets may suffer periods of illiquidity. Illiquidity can have an impact on the quality or amount of data available to BISL for calculation and may cause the Index to produce unpredictable results.

## Limitations of the index

Though the Index is designed to be representative of the markets it measures or otherwise aligns with its stated objective, it may not be representative in every case or achieve its stated objective in all instances. It is designed and calculated strictly to follow the rules of this Methodology, and any Index level or other output is limited in its usefulness to such design and calculation.

Markets can be volatile, including those market interests that the Index measures or upon which the Index is dependent to achieve its stated objective. For example, illiquidity can have an impact on the quality or amount of data available to the administrator for calculation and may cause the Index to produce unpredictable or unanticipated results.

In addition, market trends and changes to market structure may render the objective of the Index unachievable or to become impractical to replicate by investors.

In particular, the Index measures global equity markets. As with all equity investing, the Index is exposed to market risk. The value of equities fluctuate with the changes in economic forecasts, interest rate policies established by central banks and perceived geopolitical risk. The Index does not take into account the cost of replication and as a result a tracking portfolio's returns will underperform the Index with all else equal. As the Index is designed to measure those markets, it could be materially impacted by market movements, thus significantly impacting the use or usefulness of the fixings for some or all users.

In addition, certain sub-indices may be designed to measure smaller subsets of the Index such as specific styles, size, and sector. Some of these sub-indices have very few qualifying constituents and may have none for a period of time. During such period, the sub-index will continue to be published at its last value, effectively reporting a 0% return, until new constituents qualify. If no constituents are expected to qualify (due to changes in market structure and other factors), the sub-index may be discontinued. In such an event, this discontinuation will be announced to index users.

## Section 6: Benchmark Oversight and Governance

### Benchmark Governance Structure

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### Index and data reviews

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### Expert judgement

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### Conflicts of interest

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### Restatement policy

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### Cessation policy

Please refer to the BISL Benchmark Procedures Handbook available [here](#).



## Appendix A: Environmental Social & Governance (ESG) Disclosures

If a security/issuer is included in Sustainalytics research coverage for at least one of the ESG screens listed below, the Index will deem such security/issuer as eligible for inclusion, provided it meets the relevant Index eligibility rules. A security/issuer will otherwise not be eligible for inclusion in the Index.

<b>EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY</b>	
<b>Item 1.</b> Name of the benchmark administrator.	Bloomberg Index Services Limited ("BISL")
<b>Item 2.</b> Type of benchmark or family of benchmarks. <i>Choose the relevant underlying asset from the list provided in Annex II to Commission Delegated Regulation (EU)2020/1816.</i>	Equity
<b>Item 3.</b> Name of the benchmark or family of benchmarks.	Bloomberg Hydrogen ESG Index
<b>Item 4.</b> Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	Yes
<p><b>Item 5.</b> Where the response to Item 4 is positive, please list below, for each family of benchmarks, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816.</p> <p>Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.</p> <p>The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
(a)	List of environmental factors considered:
<p>Environmental Objectives:</p> <p>Companies that are found to significantly harm one or more of the environmental objectives referred to in Article 9 of Regulation (EU) 2020/852 of the European Parliament and of the Council.</p>	<p>This requirement is estimated by excluding researched companies that have been identified being either high or severe violators of the following controversies as they pertain to the environment:</p> <ul style="list-style-type: none"> <li>- Community relations</li> <li>- Land use and biodiversity</li> <li>- Emissions, effluents, and waste</li> <li>- Energy use and GHG emissions</li> <li>- Environmental impact of products <ul style="list-style-type: none"> <li>- Lobbying and public policy</li> <li>- Water use</li> </ul> </li> <li>- Carbon impact of products</li> </ul>
<p>Unconventional Oil &amp; Gas:</p> <p>Companies that extract oil sands, involved in shale energy exploration and production, or involved in oil and gas explorations in the Arctic regions.</p>	<p>Researched companies that have 5% or more revenues from extracting oil sands, shale energy exploration and production, or oil and gas exploration in the Arctic regions are excluded from the Index.</p>
<p>Thermal Coal:</p> <p>Companies that extract thermal coal, generate electricity from thermal coal, or have generating capacity for thermal coal.</p>	<p>Researched companies that generate 5% or more revenue from the extraction of thermal coal or generating electricity from thermal coal are excluded from the Index.</p> <p>In addition, researched companies that have thermal coal generating capacity more than 15% are also excluded from the Index.</p>
<p>Oil &amp; Gas:</p> <p>Companies involved in oil and gas exploration, production, refining, transportation, and/or storage.</p>	<p>Researched companies that generate 25% or more revenue from being involved in or providing tailor-made products and services that support oil and gas exploration, production, refining, transportation, and/or storage are excluded from the Index.</p>

<p>Companies that provide tailor-made products and services that support oil and gas exploration, production, refining, transportation, and/or storage.</p> <p>Companies that generate electricity from oil and/or gas.</p>	<p>Researched companies that also generate 25% or more revenue from electricity derived from oil and/or gas are also excluded from the Index.</p>
<p>Nuclear:</p> <p>Companies that produce nuclear power.</p>	<p>Researched companies that generate 10% or more revenue from the production of nuclear power are excluded from the Index.</p>
<p>Degree of exposure of the portfolio to the sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006 of the European Parliament and of the Council.</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>
<p>Greenhouse gas (GHG) intensity of the benchmark.</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>
<p>Percentage of GHG emissions reported versus estimated.</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>
<p>Exposure of the benchmark portfolio to companies the activities of which fall under Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006.</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>
<p>Exposure of the benchmark portfolio to activities included in the environmental goods and services sector, as defined in Article 2, point (5) of Regulation (EU) No 691/2011 of the European Parliament and of the Council</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>
<p>(b)</p>	<p>List of social factors considered:</p>
<p>Civilian Firearms:</p> <p>Companies that manufacture and sell assault weapons to civilian customers, manufacture and sell small arms to civilian customers, manufacture and sell small arms to military and law enforcement, or manufacture and sell key components of small arms.</p> <p>Companies involved in the retail and/or distribution of assault weapons or small arms.</p>	<p>Researched companies that have any involvement in the manufacturing and selling of small arms or assault weapons or key components of small arms to civilian customers and/or military and law enforcement are excluded from the Index.</p> <p>In addition, researched companies that have 5% or more revenue from the retail and/or distribution of small arms or assault weapons are excluded from the Index.</p>
<p>Controversial Weapons:</p> <p>Companies involved in a core weapon system or components and services of a core weapon system that are either tailor-made and essential or non-tailor made and non-essential for the lethal use of the weapon.</p>	<p>Researched companies that have any involvement in the core weapon system or components and services of the core weapon system, including significant ownership, tailor-made, and non-tailor made, are excluded from the Index.</p>
<p>Military Contracting:</p>	<p>Researched companies that, in aggregate, generate 10% or more revenue from the manufacturing of military weapon systems, components of these weapons, or tailor-made components of these weapons are excluded from the Index.</p>

<p>Companies that manufacture military weapon systems and/or integral, tailor-made components of these weapons</p> <p>Companies that provide tailor-made products and services that support military weapons.</p>	
<p>UNGC/OECD Guidelines:</p> <p>Companies that benchmark administrators find in violation of the United Nations Global Compact (UNGC) principles or the Organization of Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises</p>	<p>Excludes researched companies that are non-compliant following UNGC guidelines or companies that have been identified being either high or severe violators of the following societal norms:</p> <ul style="list-style-type: none"> <li>- Access to basic services</li> <li>- Accounting and taxation <ul style="list-style-type: none"> <li>- Animal welfare</li> </ul> </li> <li>- Anti-competitive practices</li> <li>- Bribery and corruption <ul style="list-style-type: none"> <li>- Business ethics</li> </ul> </li> <li>- Community relations</li> <li>- Corporate governance</li> <li>- Occupational health and safety <ul style="list-style-type: none"> <li>- Intellectual property</li> <li>- Labor relations</li> </ul> </li> <li>- Lobbying and public policy <ul style="list-style-type: none"> <li>- Marketing practices</li> <li>- Media ethics</li> </ul> </li> <li>- Data privacy and security <ul style="list-style-type: none"> <li>- Quality and safety</li> <li>- Resilience</li> <li>- Sanctions</li> </ul> </li> <li>- Social impact of products <ul style="list-style-type: none"> <li>- Weapons</li> </ul> </li> <li>- Employees - human rights</li> <li>- Society - human rights</li> </ul>
<p>Tobacco:</p> <p>Companies that manufacture tobacco products, supply tobacco-related products and services, or derive revenue from the distribution and/or retail sale of tobacco products.</p>	<p>Researched companies that have any involvement in the manufacturing of tobacco products are excluded from the Index.</p> <p>Researched companies that have 5% or more revenues from supplying tobacco-related products and services or the distribution and/or retail sale of tobacco products are also excluded from the Index.</p>
<p>Exposure of the benchmark portfolio to companies without due diligence policies on issues addressed by the fundamental International Labor Organisation Conventions 1 to 8</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>
<p>Weighted average gender pay gap</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>
<p>Weighted average ratio of female to male board members</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>
<p>Weighted average ratio of accidents, injuries, fatalities</p>	<p>N/A.</p> <p>The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.</p>

Numbers of convictions and amount of fines for violations of anti-corruption and anti-bribery laws	N/A. The family of benchmarks does not apply this factor in the pursuit of its ESG objectives.
(c)	List of governance factors considered:
Weighted average percentage of board members who are independent	N/A. The family of benchmarks does not apply this factor in the pursuit of its ESG objectives
Weighted average percentage of female board members	N/A. The family of benchmarks does not apply this factor in the pursuit of its ESG objectives
<p><b>Item 6.</b> Where the response to Item 4 is positive, please list below, for each benchmark, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816, depending on the relevant underlying asset concerned.</p> <p>Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.</p> <p>The ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.</p> <p>Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in this explanation. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years.</p>	
(a) List of environmental factors considered:	As above
(b) List of social factors considered:	As above
(c) List of governance factors considered:	As above
<b>Item 7.</b> Data and standards used	
<p>(a) Data input.</p> <p>(i) Describe whether the data are reported, modelled or sourced internally or externally.</p> <p>(ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.</p>	<p>All ESG data for the benchmarks is sourced externally from Sustainalytics (reported and modelled from Product Involvement, Global Standards Screening, Controversy, and Risk Ratings data libraries).</p> <p>Please refer to the link below for additional details.</p> <p><a href="https://www.sustainalytics.com/investor-solutions/esg-research/esg-screening/esg-criteria">https://www.sustainalytics.com/investor-solutions/esg-research/esg-screening/esg-criteria</a></p>
<p>(b) Verification and quality of data.</p> <p>Describe how data are verified and how the quality of those data is ensured.</p>	<p>The Indices use the following external data provider, which has robust governance and processes in place to validate the quality and reliability of the data.</p> <p>Sustainalytics:</p> <ul style="list-style-type: none"> <li>• Universe Management <ul style="list-style-type: none"> <li>○ Centralized universe definitions and processes for rebalancing;</li> <li>○ Quarterly rebalances of Sustainalytics' standard coverage and compliance universes;</li> <li>○ Clear, transparent and consistent approach to the allocation of research versus coverage entities.</li> </ul> </li> <li>• Company Research <ul style="list-style-type: none"> <li>○ Continuous improvement and maintenance of quality and research standards;</li> <li>○ Feedback that is received from Companies in Sustainalytics' Coverage Universe and that are a part of Sustainalytics ESG Bloomberg Equity Indices April 14, 2022 Bloomberg Global Equity Paris-Aligned Index Methodology 21 Risk Ratings and</li> </ul> </li> </ul>

	<p>controversy research is taken into consideration, and whenever relevant included;</p> <ul style="list-style-type: none"> <li>o Quality reviews of ESG assessments before publication;</li> <li>o Reviewing controversy ratings by the Events Oversight Committee - focus on controversy level changes to and from level 4 and 5.</li> </ul> <ul style="list-style-type: none"> <li>• Data and deliverable management             <ul style="list-style-type: none"> <li>o Quality and reliability of Sustainalytics Covered Company and identifier data through automated quality assurance;</li> <li>o Quality and reliability of Sustainalytics proprietary (i.e. research) data through automated quality assurance, prior to publication;</li> <li>o Quality and reliability of standard deliverables through end-of-gate quality assurance process.</li> <li>o Quality and reliability of custom client deliverables through end-of-gate quality assurance processes (automated and manual);</li> <li>o Monitoring and investigating ESG score fluctuations and their root causes using automated tools.</li> </ul> </li> <li>• Update cycle             <ul style="list-style-type: none"> <li>o Sustainalytics aims for annual updates of management indicators for the Covered Companies;</li> <li>o Continuous updates are made as incidents occur and feed into updates of event indicators, which is not disclosure driven;</li> <li>o Annual updates to the rating framework (selection of material ESG issues, weighting of indicators).</li> </ul> </li> </ul>
<p>(c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i></p>	<p>N/A</p>
<p><b>Date on which information has been last updated and reason for the update:</b></p>	<p>September 2023, enhancement of descriptions</p>

## Disclaimer

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