INDEX RULE BOOK

Low Carbon 100 Europe® Index

Version 19-02

Effective from 02 December 2019

indices.euronext.com

Index

1. INDEX SUMMARY

Factsheet	Low Carbon 100 Europe®
Objective	The Low Carbon 100 Europe® Index is designed to reflect price level trends of companies in Europe that have the relative best climate score.
Administrator	Euronext Paris
Index type	Price index; Net return index and Gross return index versions are also available.
Index governance structure	The Expert Committee of the Low Carbon 100 Europe® Index is the Independent Supervisor of the index and is also responsible for overseeing the appropriateness of the rules governing the Low Carbon 100® Index. The interpretations of these rules and the day-to-day management are the responsibility of the IndexDesign department of Euronext.
Index Universe	The index Universe is made of the 300 highest Free Float Market Capitalisations of the Euronext® Europe 500 Index minus the: • 30 worst performers in term of Social and Governance score, • Exclusions related to the UNGC, • ICB Subsectors Tobacco, Defense, Aerospace and Oil Equipment & Services, • Companies involved in fossil fuel activities, • ESG controversies and controversial weapons • The Green companies.
Selection	Up to 15 Green Companies (‘N_G’) with the highest percentage of activity related to “low carbon” technologies are selected (from the 1000 highest European Free Float Market Capitalisations) From the index Universe, 100-‘N_G’ companies are selected based of their Climate score (best in class approach).
Number of constituents	100
Weighting	Modified weighting based on Climate score, sectorial & Green allocation and Free Float Market Capitalisation.
Capping	10%
Review cut-off date	Penultimate Friday of February (+ August in case of controversies)
Review of composition	Effective after the third Friday of March (+ September in case of controversies)
Review of free float, capping and number of shares	Annual in March
Base Currency	Euro

Note: the factsheet is a summary of the rule book for information purposes only. The text of the rulebook is leading.

Reference Data

Index name	Isincode	Mnemo	Bloomberg Code	Reuters code	Base date	Base value	Publication since
Low Carbon 100 Europe® Index	QS0011131735	LC100	LC100	.LC100	29-12-06	100	13-10-08
Low Carbon 100 Europe® Index NR	QS0011131743	LC1NR	LC1NR	.LC1NR	29-12-06	100	13-10-08
Low Carbon 100 Europe® Index GR	QS0011131750	LC1GR	LC1GR	.LC1GR	29-12-06	100	13-10-08

Version notes:
18-01 Change of definition of Free Float Factor
18-01 Addition of the exclusion rules for some energy companies
18-01 Addition of some rules to arrive to ‘100- N_G’ companies
19-01 Full methodology updated, see announcement No 2019-93
19-02 Review dates modified from December to March (annual review) and from June to September (semi-annual) + exclusion of the ICB Subsectors Oil Equipment & Services.
The perimeter of exclusions at semi-annual review includes the UNGC principles.

2. GOVERNANCE AND DISCLAIMER

2.1 INDICES

This rule book applies to the following indices(hereinafter "index") owned by Euronext N.V. or its subsidiaries (hereinafter jointly "Euronext"):

- Low Carbon 100 Europe® Index

2.2 ADMINISTRATOR

Euronext Paris is the Administrator of the index. The responsibilities of the Administrator are described in the Governance Euronext Indices document available on the euronext website. The management and operation of the index is overseen by the Index Design department of Euronext.

2.3 SUPERVISOR

The Expert Committee acts as independent supervisor of the index ("Supervisor"). The Supervisor is responsible for monitoring the selection of constituents for the index and ensuring that the index offers a reliable and representative view of the market. All Supervisor decisions will be published without delay following the decision (after market close).

2.4 CASES NOT COVERED IN RULES

In cases which are not expressly covered in these rules, operational adjustments will take place along the lines of the aim of the index. Operational adjustments may also take place if, in the opinion of the Administrator, it is desirable to do so to maintain a fair and orderly market in derivatives on this index and/or this is in the best interests of the investors in products based on the index and/or the proper functioning of the markets. The Administrator will report to the Supervisor if it took a decision about a case which is not specifically covered in the rules for comments and review.

2.5 RULE BOOK CHANGES

These rules may be supplemented, amended in whole or in part, revised or withdrawn at any time. Supplements, amendments, revisions and withdrawals may also lead to changes in the way the index is compiled or calculated or affect the index in another way. The Administrator will submit all decisions regarding supplementing, amending, revising or withdrawing these rules to the Supervisor for recommendations or approval.

2.6 LIABILITY

Euronext, the Administrator and the Supervisor are not liable for any losses resulting from supplementing, amending, revising or withdrawing the rules for the index.

The Administrator will do everything within its power to ensure the accuracy of the composition, calculation, publication and adjustment of the index in accordance with relevant rules. However, neither Euronext, nor the Administrator, nor the Supervisor are liable for any inaccuracy in index composition, share prices, calculations and the publication of the index, the information used for making adjustments to the index and the actual adjustments. Furthermore, Euronext, the Administrator and the Supervisor do not guarantee the continuity of the composition of the index, the continuity of the method of calculation of the index, the continuity of the dissemination of the index levels, and the continuity of the calculation of the index.

2.7 OWNERSHIP AND TRADEMARKS

Euronext owns all intellectual and other property rights to the index, including the name, the composition and the calculation of the index. Low Carbon 100 Europe® is a registered trademark of Euronext.

3. PUBLICATION

3.1 DISSEMINATION OF INDEX VALUES

3.1.1 Opening

The opening level is calculated using the last known prices of traded constituents or in the case of constituents that have non-traded, halted or suspended status, the previous day reference prices or estimated prices (for IPOs, buyouts and swap offers).

The official opening level is the first level published after a share price is available for all constituents. Index levels published before the official opening level is published are considered pre-opening index levels.

If, for whatever reason, share prices are not available for all constituents five minutes after Euronext Markets (as defined in the Euronext harmonised rule book) started regular daytime trading, the official opening level will be published as soon as the companies whose share prices are available of the current trading day represent at least 80% of the value of the index at the close of the previous trading day.

3.1.2 Calculation and dissemination

The index is calculated based on the most recent prices of transactions concluded on Euronext Markets. The level of the index is in principle published every 15 seconds. The index is calculated from 09:00 hours until Euronext Markets stop regular daytime trading on the days when the Euronext Markets are open for trading.

3.1.3 Closing level

The closing level is the last level disseminated on the trading day.

3.2 EXCEPTIONAL MARKET CONDITIONS AND CORRECTIONS

In the event that part of the constituents is reserved, suspended from trading or if technical problems prohibit normal trading, index values will continue to be calculated and published. For those constituent stocks that are not available for trading, the last known value will be used when determining index values.

The general procedures in case of index outages and other situations in which the normal provision of indices is interrupted are described in Euronext Indices Correction Policy on indices.euronext.com/index-rules.

3.3 ANNOUNCEMENT POLICY

The announcement policy is described in the Euronext Indices Announcement policy document that is available on indices.euronext.com/index-rules.

4. CALCULATION

4.1 CALCULATION OF THE PRICE INDEX

The index is calculated on a price return basis. The calculation is based on the current Free Float (see section 8. Definitions) market capitalization divided by the divisor. The divisor was determined on the initial capitalization base of the index and the base level. The divisor is adapted as a result of corporate actions and composition changes.

4.2 CURRENCY CONVERSION

The base currency of the index is Euro (“Base Currency”).

Share prices that are quoted in other currencies than the Base Currency will be converted to the Base Currency using the last known exchange rate observed on Reuters. Closing prices will be converted based on the most recent WM/Reuters spot rates, which are published each business day around 17:00 CET.

4.3 TOTAL RETURN INDEX CALCULATION

4.3.1 Return indices

A net total return index as well as a gross total return index, is calculated and disseminated at the same frequency as the price index. The return indices are obtained by reinvesting the net and gross dividends respectively.

4.3.2 Withholding tax rate

The net dividend is calculated as the gross dividend minus the applicable withholding tax. A table detailing the percentages that are applied is available on the website of Euronext.

4.3.3 Ordinary dividends in shares

If a dividend is distributed in the form of shares only and if this is regarded as ordinary dividend, the return index will be reinvesting a cash equivalent of the dividend. If shareholders may choose between cash or shares the amount which is reinvested will be based on the cash option.

4.3.4 Conversion of dividends declared in other currencies

If a dividend for a constituent is declared in another currency than the Base Currency of the index, then in first instance the Base Currency amount will be used if investors have the option to be paid in that currency. If the dividend amount is available only in currencies that deviate from the Base Currency, the dividend amount will be converted using the reference rate for the cum-day (the business day prior to the ex-date). In principle the reference rate will be based on the foreign exchange reference rates as published daily by the ECB.

5. INDEX REVIEWS

5.1 GENERAL AIM AND FREQUENCY OF REVIEWS

5.1.1 General aim of the periodical review

The general aim of the periodical review of the index is to ensure that the selection and weighting of the constituents continues to reflect the underlying market or market segment it represents.

5.1.2 Review Cut-Off Dates and Review Effective Dates

ANNUAL REVIEW

The Review Cut-Off Date (see 9. Definitions) is after the market close of the penultimate Friday day of February.

The Review Composition Announcement Date is at least two days before the Review Effective Date. There is no separate announcement for the reviews, so the Review Announcement Date is not applicable.

The Review Effective Date is after market close of the third Friday of March.

SEMI-ANNUAL REVIEW

The semi-annual review aims at replacing companies subject to strong controversies or at risk with the UNGC principles.
The Review Cut-Off Date (see 9. Definitions) is after the market close of the last trading day of August.
The Review Effective Date is after market close of the third Friday of September.

5.2 INDEX UNIVERSE, SELECTION AND WEIGHTING

5.2.1 Creation of the Index Universe

The index Universe is made of the 300 highest Free Float Market Capitalisations of the Euronext® Europe 500 Index minus the:

- 30 worst performers in term of Social and Governance score,
- Exclusions related to the UNGC,
- ICB Subsectors Tobacco, Defense, Aerospace and Oil Equipment & Services,
- Companies involved in fossil fuel activities,
- ESG controversies and controversial weapons as determined by the Expert Committee,
- The Green companies.

Here are the detailed steps to be followed:

Step 1: The 300 highest Free Float Market Capitalisations

All the stocks expected to be included in the Euronext® Europe 500 Index after the close of business of the Review Date are ranked by Free Float Market Capitalisations. The top 300 are selected.

Step 2a: Removal of companies / Social and Governance score

The 300 companies from step 1 are assigned a Social and Governance score. This score is computed as the average between the Social and Governance scores as defined by Vigeo-Eiris. The 30 worst scores are removed. In case of equal average score, the company with the best Social score will be preferred. Please refer to the “Data Providers” section for more information about the score.

Step 2b: Removal of companies / United Nations Global Compact

The companies that do not meet or are at risk with the fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption as defined by the Ten Principles of the United Nations Global Compact (UNGC) as evaluated by Vigeo-Eiris, are excluded. Please refer to the “Data Providers” section for more information about the methodology.

Step 2c: Removal of companies / ICB

The companies pertaining to the ICB Subsectors Tobacco (3785), Defense (2717), Aerospace (2713) and Oil Equipment & Services (573) are excluded.

Step 2d: Removal of companies / Fossil Fuel

The companies involved in the following activities will be excluded from the index by the Expert Committee at the reviews:

a. Companies with fossil fuel reserves,
b. Companies searching, collecting, treating, refining or transporting coal, oil or gas,
c. Utilities that use fossil fuels to produce electricity.

Step 2e: Removal of companies / Expert committee

In case of serious controversies that have arisen after the cut-off date and/or controversies that are deemed to be incompatible with the index spirit, the Expert committee can decide to exclude certain companies. The decision ground includes Environmental, Social or corporate Governance (ESG) controversies and controversial weapons (anti-personnel landmines, cluster munitions, nuclear weapons, biological & chemical weapons and ammunition containing depleted uranium).

Step 2f: Removal of companies / The Green companies

The Index Universe will be used as bases for the sectorial targets (number of stocks and weightings) in the index and as such will be treated separately to avoid any conflicts in the calculations. The Green companies part of the 300 highest Free Float Market Capitalisations are removed from the index universe and will be added to the index at a later stage.

The list of Green Companies is made out of the 1000 highest European free float market capitalization companies on the June Review Cut-Off Date.

These companies should have at least 50% of their turnover related to “low carbon” technologies (renewables or energy efficiency) and being part of the following ICB sectors:

- Alternative Energy (580)
- Construction & Materials (2350)
- Electricity (7530)
- Electronic & Electrical Equipment (2730)
- Industrial Engineering (2750)
- Industrial Transportation (2770)

The list of Green Companies with their respective turnover related to “low carbon” technologies will be made public after the June review on Euronext website:
https://www.euronext.com/fr/products/indices/QS0011131735-XAMS/market-information.

Should this list count less than 10 companies, the “50% of turnover” condition may be alleviated. The list could be amended for the annual review in case of a substantial change in a company’s activity or a corporate action that would make the company not fulfil the above criteria.

5.2.2 Selection of the 100

1/ The Green Companies (‘N_G’)

Out of the Green list established during the June review, the 15 companies with the highest percentage of turnover related to “low carbon” technologies that are part of the 1000 largest European companies at the Annual Review Cut-Off Dates will be selected (same countries as the Euronext® Europe 500 Index).

If the number of Green Companies (‘N_G’) selected is below 15, the number of non-Green companies will be increased so that the number of index constituents reaches 100 and it will be equal to 100-‘N_G’.

2/ The Non-Green Companies (100 - ‘N_G’)

Step 1: Determination of the climate scores

Euronext calculates a climate score by combining the Carbone4 and CDP scores (the smaller the better).

A score (see Data Provider part) provided by Carbone4 is attributed to the companies part of the Index Universe, 1 being excellent and 5 being poor. The full Carbone4 methodology is available on: http://www.carbone4.com/sites/default/files/CarbonImpactAnalytics.pdf

A score (see Data Provider part) provided by CDP is also attributed to the companies part of the Index Universe, A being excellent and D- poor. CDP methodology is available on: https://www.cdp.net/fr/

Euronext calculates a climate score by combining the above mentioned scores. For each company, the Carbone4 score will be tilted with a bonus/malus system, using the CDP equivalence table from chapter 7. A Carbone4 score can be improved or worsened by a bonus /malus ranging from -0.5 to +0.5. For example, a company with a Carbone 4 score of 2 and a CDP score of A- (equivalent to a bonus of -0,4) will get a climate score of 1,6.

Step 2: Determination of the target number of companies within each ICB super-sector

The target number of non-Green companies within each super-sector of the index is proportional to the number of companies in the super-sectors of the Index Universe. This number is then rounded-up.

Ex:	Index Universe	Low Carbon 100 Europe® Index
Number of companies	211	100 - ‘N_G’, ex: 91
Number of companies in the ICB super-sector “Personal & Household Goods”	15	Round-up (15/211*91) = **7**

Step 3: Selection of the companies

Within each super-sectors, the companies are ranked from the best to the worst climate score. The “n” best companies will be selected, “n” being the target number of companies in the super-sector, as determined at the previous step.

As the sum of the target number of companies in each super-sector will mathematically be above 100 - ‘N_G’, the surplus will be removed so that the number equals 100 - ‘N_G’.

The rule for removal is as follow: the worst companies in term of climate score are removed under the constraint that only one company is excluded per super-sector and that at least 2 companies are kept per super-sector. In case of equality, the highest Free Float Market Capitalisations will be preferred. If needed, another iteration will be performed until the number of companies is equal to 100 - ‘N_G’.

5.2.3 Weighting of the 100

1/ The Green Companies (currently set at 5%)

Each year, the committee will define the total weight of the Green companies based on different criteria such as: the number of Green companies, their Free Float Market Capitalisation and average daily traded value.
It is currently set at 5% and a positive trajectory is aimed at over the future.

To calculate the weight of each individual Green company, an optimization that satisfies a liquidity constraint is performed. The liquidity constraint aims at maintaining the investability of the index with regards to the Green components. Considering a €2 billion fund, the Green Companies should fulfil the following criteria:

- Each Green Company can be sold within 5 days
- The daily volume related to the sale cannot exceed 30% of the last 3 months daily average volume.

The companies not capped by the liquidity constraint are equally weighted.

We define the weight of a specific Green company as
$W_{green} = Min\{Liquidity\ Constraint|\mathrm{W}_{gmax}\ \}$

With the following constraints :
Liquidity Constraint = $\frac{(\mathrm{PX})_i*(\mathrm{VOL\_AV\_3M})_i)*1{,}5}{€2bn}$
$W_{EW} = (5\% - W_{gc})/N_{gnc}$
$\sum W_{green} = 5\%$

N_{gnc} = number of Green companies not capped by the liquidity constraint
W_{green} = Weight of a specific Green Company
W_{EW} = weight of a Green Company not capped (Equal weight)
$W_{gc} = \sum Wg$ capped by the liquidity constraint
N_{gnc} = Number of Green Companies non capped by the liquidity constraint
PX = Last price expressed in EUR
VOL_AV_3M = Average daily volume over the last 3 months

2/ The Non-Green Companies (currently set at 95%) : super-sectors weight

The total weight of the non-Green companies should sum up to 95%.
The weight of each super-sector (ex-Green companies) in the index is equal to the weight of the super-sector in the Index Universe.

Ex:	Index Universe	Low Carbon 100 Europe® Index (ex-Green companies)
Weight of the super-sector "Personal & Household Goods"	9.45%	9.45% * 0.95 = **8.98%**

The final weight of each super-sector, once the Green companies are added to the index, will deviate from the target weight as determined by the index Universe.

3/ The Non-Green Companies (currently set at 95%) : individual company weight

Within each super-sector, the weight of each company is made proportional their Free Float Market Capitalisation.

Ex:	Weight	Free Float Market Capitalisation
Super-sector "Personal & Household Goods" in the Index (ex-Green companies)	8.98%	6 companies for 220 0000 000 000 €
Considering company A = 80 000 000 000€, then the weight of A = 80/220 * 8.98% = **3.27%**		

5.2.4 Capping

A maximum weighting of 10% is applied to each index constituent at the annual review. The surplus weight (weight above the capping for a specific company) is rebalanced to all the other index components, proportional to their size and up to the capping constraint.

Ex:	Company A	Company B
Weight before capping	12%	6%
Surplus	12% - 10% = 2%	N/A
Weight after capping	10%	6% + 6% / (1-12%) * 2% = **6.14%**

5.2.5 Replacement of constituents at the semi-annual review

At the semi-annual review, the companies that do not meet or are at risk with the fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption as defined by the Ten Principles of the United Nations Global Compact (UNGC) as evaluated by Vigeo-Eiris, are excluded. Please refer to the "Data Providers" section for more information about the methodology.
Are also excluded companies with strong controversies related to ESG topics and weapons as determined by the Expert Committee.

If a company is removed, it will be replaced (same weight) by the next best ranked* company in that same super-sector. If 2 or more companies are excluded from the same sector, the highest weight will be assigned to the best ranked* company and so on.

If not enough stocks are available in that super-sector, the best ranked* companies excluded to arrive at 100-'NG' (5.2.2, Step 3) during the annual review will be added (same weight). If 2 or more companies are needed, the highest weight will be assigned to the best ranked* company and so on.

**The ranking is the one from the annual review and is made on the climate score. In case of equal score, the second criteria for the ranking is the free float market capitalisation on the annual review cut-off date.*

6. CORPORATE ACTIONS

6.1 GENERAL

The index may be adjusted in order to maintain the continuity of the index level and the composition. The underlying aim is that the index continues to reflect as closely as possible the value of the underlying portfolio.

Adjustments take place in reaction to events that occur with constituents in order to mitigate or eliminate the effect of that event on the index.

6.2 REMOVAL OF CONSTITUENTS

A constituent will be removed from the index if it has appeared that the liquid trading will be significantly affected due to a takeover, merger, bankruptcy or has ceased to be a viable constituent as defined by the rules. The constituent in question will either be removed or will be replaced by the acquiring company.

If a company is removed from the index, the divisor will be adapted to maintain the index level.

6.2.1 Mergers and acquisitions

If a constituent is subject to a take-over offer, a merger, an acquisition or a similar situation or has in the opinion of Index Design ceased to be a viable constituent as defined by the rules, the constituent in question will be removed on a day determined by Index Design.
If an index component is acquired by another company (component or non-component of the index), the former will be removed on a day determined by Index Design.

6.2.2 Delistings, suspensions and company distress

If a constituent is suspended, Index Design will consider whether the constituent should be removed on the understanding that a transitional period with a maximum of three months may be observed.

If a constituent will be delisted from Euronext, it will be removed from the index as soon as possible and on a day determined by Index Design.

The company will be deleted from the index based on either the last known price established during regular daytime trading or else a price determined by Index Design, whereby the company may also be deleted at EUR 0.

In the event that the trading in shares is suspended, the last known price established during regular daytime trading will be used.

6.3 SPLIT UP / SPIN-OFF

In the event that a company included in the index is split up, the companies resulting from the split, including the original company where appropriate will continue to be included in the index providing they still qualify as an eligible company in their own right. The index may then temporarily consist of fewer than, or more than the standard number of constituents until the next periodical review takes place.

For the purposes of these rules a split up is taken to mean a legal demerger, a spin-off or another situation which Index Design deems to be similar.

In case the shareholder of the company which was originally included in the index does not automatically receive shares in a company which is created as a result of the split up, this company is considered to be a newly listed company.

The removal of any non-qualifying company resulting from a split up will take place after the close of the first day of trading in the shares of that company. If all companies resulting from the split are to be removed, the removal will take place at the close of the last trading day before the split.

6.4 EARLY INCLUSION OF NON-CONSTITUENTS

As a rule newly listed companies are considered for inclusion in the index at the time of the periodical index rebalancing.

6.5 DIVIDENDS

6.5.1 Distinction ordinary and special dividend

The price index will be adjusted for dividends that are special.

The following criteria will be applied to decide whether a dividend should be considered a special dividend:

a) The declaration of a company of a dividend additional to those dividends declared as part of the company's normal results and dividend reporting cycle; merely an adjustment to the timing of the declaration of a company's expected dividend would not be considered as a special dividend circumstance; or
b) The identification of an element of a dividend paid in line with a company's normal results and dividend reporting cycle as an element that is unambiguously additional to the company's normal payment.

For the purpose of clarification, no adjustment will be made for the following situations:

1. Payment of ordinary dividends, irrespective of how they are financed;
2. Issue of redeemable shares or any other entitlement in lieu of an ordinary dividend; or
3. Unexpected increase or decrease, resumption or cessation, or change in frequency to an ordinary dividend.

6.5.2 Adjustment for special dividend

The adjustment of the index takes place by a reduction of the closing price of the share in question. Subsequently the divisor will be adapted in order to maintain the index level. The adjustments will be based on gross amounts.

6.6 RIGHTS ISSUES AND OTHER RIGHTS

In the event of a rights issue the new shares will be included in the index on the ex-date of the rights issue and an adjusted closing price will be applied. The adjustment will be made based on the shares currently in the index. The divisor will be adapted in such a way that the level of the index remains the same.

The new shares are only added if less than 0.4 share is issued for every share that is currently held and if the new shares are fungible with the existing line of shares (e.g. no dividend disadvantage). Otherwise the index is adjusted based on the value of the rights only.

The index will be adjusted only if the rights represent a positive value.

The index will also be adjusted if a value can be attributed to a subscription right for convertible bonds, bonds with warrants or warrants with preferential rights for shareholders or similar situations.

6.7 BONUS ISSUES, STOCK SPLITS AND REVERSE STOCK SPLITS

For bonus issues, stock splits and reverse stock splits, the number of shares included in the index will be adjusted in accordance with the ratio given in the corporate action. The divisor will not be changed because of this. Index Design may regard a bonus issue as the issue of an entitlement in lieu of an ordinary dividend and therefore treat this in accordance with 6.5.1.

6.8 CHANGES IN NUMBER OF SHARES OR FREE FLOAT

In between the reviews the number of shares included in the index and free float factors will remain unchanged.

6.9 PARTIAL TENDER OFFERS ON OWN SHARES

The divisor of the index will be adjusted if the premium represents more than 5% of the share price of the close on the penultimate day before the ex-date (the day prior to the last day before the ex-day). The premium is calculated as the difference between the offered price and the closing price, multiplied by the percentage of the share capital targeted in the offer. If the divisor is adjusted, the number of shares in the index will be adjusted as well.

7. DATA PROVIDERS

7.1 CDP

7.1.1 Core principles

CDP is a global not-for-profit organization that holds the largest and most comprehensive collection globally of primary corporate climate change, water and forest-risk information.

Principles of scoring

Scoring at CDP is mission-driven, focusing on CDP's principles and values for a sustainable economy, and highlighting the business case to do this. Scoring provides a roadmap to companies to achieve best practice and by developing the scoring methodology over time, we are able to drive changes in company behavior to improve environmental performance. The scoring methodologies have been designed to incentivize actions that are applicable to a certain extent to all companies, in all sectors and in all geographies. For companies that have a good understanding of the scoring methodology, the score provides a snapshot of how they compare with other companies.

Points allocation

Responding companies will be assessed across four consecutive levels which represent the steps a company moves through as it progresses towards environmental stewardship. The levels are:

1) Disclosure;
2) Awareness;
3) Management;
4) Leadership.

7.1.1 CDP Equivalence Table

CDP Score Alphabet	Bonus (-)/Malus(+)
A	-0.5
A-	-0.4
B	-0.3
B-	-0.2
C	0
C-	0.2
D	0.3
D-	0.4
AQ*	0.4
F**	0.5
Not requested to respond	0.5

AQ*: Answered Questionnaire, no score (usually due to late response)

F**: Failure to provide sufficient information to be evaluated. Companies who are requested to disclose their data and fail to do so, or fail to provide sufficient information. This does not necessarily mean a failure of environmental stewardship

7.2 CARBONE 4

Carbone 4 is a leading consulting firm specialized in the energy and climate transition. Carbone 4 advises public and private entities, assisting them in the transition to a low-carbon economy.

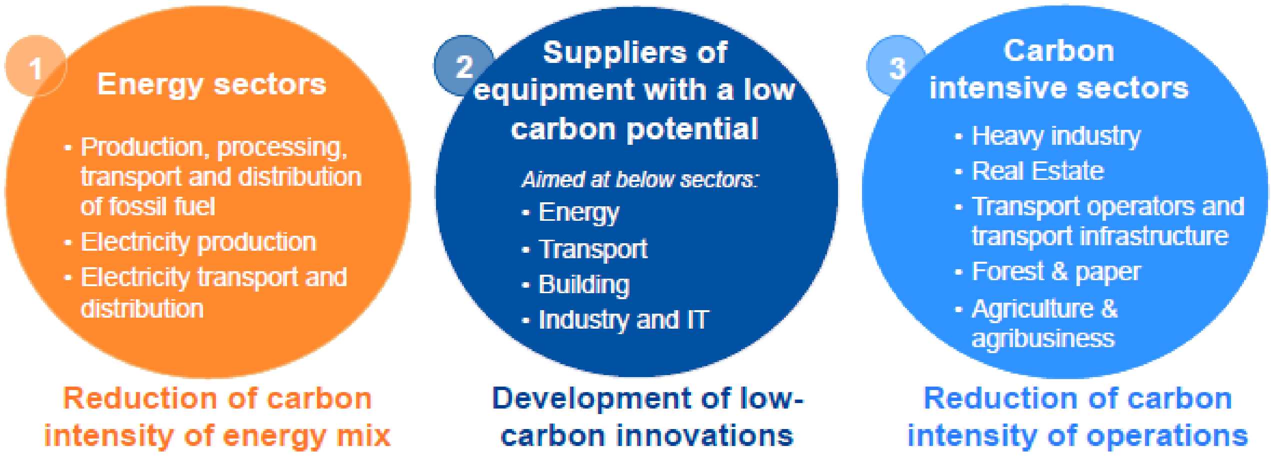
7.2.1 Core principles

"Bottom-up" analysis:

The analysis of the carbon impact of a portfolio begins with an in-depth assessment of each underlying firm, followed by aggregation at the portfolio level. This allows for differentiation between companies in the same business sector, and enables recognition of companies' efforts in integrating climate and energy-related issues in their strategic decisions and reporting.

Sectorial approach with specific insights for "high stakes" sectors:
Challenges regarding the low-carbon transition vary depending on the characteristics of each economic sector. Therefore, Carbon Impact Analytics differentiates "high stakes" and "low stakes" sectors, and provides specific insights for "high stakes" sectors with tailored calculation principles for each sector.

"High stakes" sectors for which a detailed Carbon Impact analysis is performed are detailed below:



Low stakes sectors include companies with a limited impact on global warming as well as companies for which the current standards of disclosure are insufficient to perform a reliable CIA analysis.

7.2.2 The Carbon Impact Ratio

The carbon impact ratio (CIR) is the ratio of avoided emissions (emissions which would exist unless the company had actively made an effort to decrease them) to induced emissions. It is an easy-to-read indicator of the carbon impact of a company, and enables comparison between the carbon impact of a company and the impacts of its sectorial peers.

Evaluating the forward-looking trend of induced and avoided emissions requires analysis of investments and R&D expenditures which will contribute to decreasing carbon emissions in the future, as well as analysis of the firm's positioning and strategy regarding the low-carbon transition. Given that the vast majority of firms do not directly report on the share of their investments and R&D expenditures that contribute to decreasing GHG emissions, this metric is obtained through a qualitative indicator.

Finally, a global rating (aka "climate score") is provided for each company. This rating seeks to assess the company's impact on climate change and its contribution to reduced GHG emissions, while taking into account induced emissions, avoided emissions and the forward-looking analysis.

7.3 VIGEO

7.3.1 Social Score

The **Social Score** gathers all the criteria that pertain to the company's social and societal impacts, in terms of:

- **internal Human Resources** (e.g. Social dialogue, Responsible Reorganisations, Career management, Health & Safety),
- ✓ the company's respect of **Human Rights** in the community (e.g. Fundamental Human Rights, Right to privacy, to personal security, Property Rights etc.),
- ✓ the company's **Community Involvement** (Promotion of sustainable contributions to the economic and social development of local areas, optimisation of the economic and social impact of the company's activities, development of voluntary initiatives and efforts to take into account the impacts of company's products and services on the community etc.),
- ✓ the company's **Relations with Customers** (Information to customers, Responsible customer relations),
- ✓ the company's **Sustainable Relations with Suppliers** and **Integration of Social factors in the company's supply chain** (Freedom of association, Abolition of child or forced labour, Non-discrimination, etc),
- ✓ and for some sectors, the Social pillar also includes the company's management of **Product safety** (eg: Food companies are responsible for ensuring the safety of their products for customers as the failure to do so might have irreversible impacts on the health of consumers).

7.3.2 Governance Score

The **Governance Score** gathers:

- ✓ all the criteria that pertain to the company's **internal governance bodies and systems** (namely the topics of the Board of Directors, Audit & Internal controls, Shareholders, Executive remuneration),
- ✓ as well as the company's behaviour in terms of business **ethics** (namely the Prevention of corruption, Prevention of anti-competitive practices, Responsible Lobbying).

7.3.3 United Nations Global Compact

FEBELFIN Standards			Vigeo Eiris research	
Category	**Topic**	**Thresholds required by 2025**	**VE Research line**	**Exclusion threshold**
UN Global Compact violations	Unacceptable GHG emissions	Investor Decision	**Carbon Footprint Grade** *(A, B, C , D)* Carbon Footprint Grade : This is a scale attached to the absolute carbon footprint, scope 1 & 2, including the following greenhouse gases: Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons, Sulfur Hexafluoride, Nitrogen Trifluoride A – Moderate : <100 000 teq CO2 B – Significant : 100 000 – 1 000 000 teq CO2 C – High : 1 000 000 – 10 000 000 teq CO2 D- Intense : >= 10 000 000 teq CO2 **Energy Transition Score** *(0-100)*	Exclusion if carbon grade = D and Energy transition Score < 50

			Energy transition Score reflects the strategic approach to reduce companies emissions and adapt their business model to address the risks and opportunities tied to the transition to a low carbon economy.	
	Serious or systematic human right violations		UN Global Compact Research **Level of Integration of GC principles** 5-scale opinion regarding overall integration of UNGC principles. The UNGC analysis covers Human Rights, Labour, Environment, Corruption topics. It also takes in account controversies affecting the topics mentioned above, revenues from controversial weapons and tobacco Advanced High Average Limited Non communicative and/or controversial	Non communicative and/or controversial
	Serious violations in situation of war or conflict			
	Gross corruption			
	Severe environmental damage			
	Violation of fundamental ethical norms			

8. INDEX CALCULATION FORMULAS

The general formula for the **price index** is:

$$I_t = \frac{\sum_{i=1}^{N} Q_{i,t} F_{i,t} f_{i,t} C_{i,t} X_{i,t}}{d_t}$$

Where:

t	Time of calculation
N	Number of constituent equities in index
$Q_{i,t}$	Number of shares of equity i included in the index on day t
$F_{i,t}$	Free Float factor of equity i [1]
$f_{i,t}$	Capping factor of equity i [1]
$C_{i,t}$	Price of equity i on t
$X_{i,t}$	Current exchange rate on t [1]
d_t	Divisor of the index on day t

The **total return index** calculation takes two steps: the first step is to transpose the announced dividend payment into index points. This is called the XD adjustment. This uses the following formula:

$$\text{XD adjustment} = \sum_{i=1}^{N} \frac{g_i * w_i}{d}$$

Where:

N	Number of constituent equities in index
g_i	The announced dividend per share of the i^{th} component stock (for net return index withholding tax is deducted from this dividend);
w_i	The weighting of the i^{th} component stock in the index, based on number of shares included in the index, Free Float factor, capping factor and exchange rate;
d	Divisor of the index.

The second step of the calculation uses the figures calculated in step one (XD adjustment). The dividend is assumed to be reinvested at the close of the ex-date.

$$TR_t = TR_{t-1}\left(\frac{IV_t + XD}{IV_{t-1}}\right)$$

Where:

TR_{t-1}:	Total return index value yesterday;
TR_t:	Total return index value on t;
IV_{t-1}:	Underlying price index yesterday;
IV_t:	Underlying price index on t;

[1] Factor is equal to 1 if not applied for the index

9. DEFINITIONS

9.1 FREE FLOAT FACTOR

The Free Float Factor is the percentage representing all listed securities of the selected line of the relevant company eligible for index inclusion (as described in section 5.2), minus any shareholdings that are considered non-free float. The Free Float Factor is based on public information available on the Review Cut-Off Date. The Free Float Factor will be rounded to the nearest 5%.

The following shareholdings are considered non-free float (based on public information available on the Review Cut-Off Date):

- Any single shareholder who holds 5% or more of the listed securities in the selected line eligible for index inclusion, with the exception of collective entities or pension funds. Collective entities are those entities that fulfill all the following criteria:
    1. are open for investment to investors or tradable on the market; and
    2. have a diversified portfolio; and
    3. have an open ended structure.

  Collective entities include mutual funds and other open end-funds.
- Collective entities or pension funds that hold 5% or more of the listed securities in the selected line eligible for index inclusion and are represented in any governing body of the company in question.
- Parties acting in concert that collectively hold 5% or more of the listed securities in the selected line eligible for index inclusion.
- Employee shareholding plans, employee pension plans, individual employees, management or members of the board of directors of the relevant company when their cumulative shareholding is 5% or more of the listed securities in the selected line eligible for index inclusion.
- Shares held by the relevant company that represent 5% or more of the listed securities in the selected line eligible for index inclusion (e.g. treasury shares).

9.2 THE EXPERT COMMITTEE

Committee consisting of independent persons which acts as Supervisor to the index and to which all decisions regarding supplementing, amending, revising or withdrawing these rules are submitted for approval.

9.3 REVIEW RELEVANT DATES

The **Index Universe Cut-Off Date** is the date on which, after the market close, relevant data are gathered that will serve as basis to construct the Large Universe.

The **Review Cut-Off Date** is the date on which, after the market close, relevant data are gathered that will serve as basis for the periodical review of the index.

The **Review Announcement Date** is the date on which, after the market close, the changes relating to the periodical review are announced as well as the preliminary free float factors.

The **Review Composition Announcement Date** is the date on which, after the close, the full details are announced regarding the index composition that will come into effect after the review effective date. this includes numbers of shares, free float factors and capping factors of all companies included in the new index portfolio.

The **Review Effective Date** is the date on which, after the market close, the changes relating to the periodical review are being effectuated in the index portfolio.