



## INDEX RULE BOOK

# Low Carbon 100 Europe<sup>®</sup> Index

Version 18-01

Effective from 23 November 2018

[indices.euronext.com](http://indices.euronext.com)

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## 1. INDEX SUMMARY

<b>Factsheet</b>	<b>Low Carbon 100 Europe®</b>
<b>Index names</b>	Low Carbon 100 Europe® Index
<b>Index type</b>	Price index; Net return index and Gross return index versions are also available.
<b>Index governance structure</b>	<p>The Expert Committee of the Low Carbon 100 Europe® Index acts as Supervisor of the index and is also responsible for overseeing the appropriateness of the rules governing the Low Carbon 100® Index.</p> <p>The interpretations of these rules and the day-to-day management are the responsibility of the Compiler, Euronext.</p>
<b>Eligible stocks</b>	<p>A Large Universe of the 1000 largest free float market capitalization European companies is defined. The Green Companies part of this Large Universe are eligible for the index.</p> <p>The Index Universe consists of:</p> <ul style="list-style-type: none"><li>- (300 - N<sub>G</sub>) largest companies from the Large Universe (N<sub>G</sub> being the number of Green companies selected)</li><li>- Plus N<sub>G</sub> selected Green Companies (10 to 15)</li><li>- minus the constituents excluded for controversies or for not responding to the CDP</li></ul>
<b>Selection</b>	<p>From the eligible Green Companies, the 10 to 15 Green Companies with the highest percentage of activity related to “low carbon” technologies are selected.</p> <p>Out of the index Universe, 85 to 90 companies are selected on the base of their CIA score and/or their CDP score.</p>
<b>Number of constituents</b>	100
<b>Weighting</b>	Modified weighting based on Carbon score, sector allocation and free float market capitalisation.
<b>Capping</b>	15%
<b>Review of composition</b>	Effective after the third Friday of December (+ June in case of controversies)
<b>Review of free float and capping</b>	Annual in December
<b>Review of number of shares</b>	Annual in December
<b>Base Currency</b>	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<sub>G</sub>' companies

## **2. GOVERNANCE AND DISCLAIMER**

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### **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 COMPILER**

Euronext is the compiler of the index (“Compiler”). The Compiler is responsible for the day-to-day management of the index and is also responsible for decisions regarding the interpretation of these rules.

### **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 Compiler, 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 Compiler 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 Compiler will submit all decisions regarding supplementing, amending, revising or withdrawing these rules to the Supervisor for recommendations or approval.

### **2.6 LIABILITY**

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

The Compiler 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 Compiler, 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 Compiler 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**

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### **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](https://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](https://indices.euronext.com/index-rules).

## 4. CALCULATION

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### 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 the Compiler will in first instance use the Base Currency amount 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 Compiler will convert the dividend amount 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

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### 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 Index Universe Cut-Off Date (see 9. Definitions) is after the market close of the last trading day of September.

The Review Cut-Off Date (see 9. Definitions) is after the market close of the last trading day of November.

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

##### SEMI-ANNUAL REVIEW

The semi-annual review aims at excluding companies subject to controversies. No replacement will be implemented.

The Review Cut-Off Date (see 9. Definitions) is after the market close of the last trading day of May.

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

### 5.2 ELIGIBLE COMPANIES, SELECTION AND WEIGHTING

#### 5.2.1 Index Universe

The securities from the European countries eligible for inclusion in the selection list are ranked in decreasing order of free float market capitalization on the Index Universe Cut-Off Date.

A Large Universe of the 1000 largest free float market capitalization European companies is defined.

The Index Universe consists of:

- (300 -  $N_G$ ) largest companies from the Large Universe ( $N_G$  being the number of Green companies selected)
- Plus  $N_G$  selected Green Companies (10 to 15)
- minus the excluded constituents defined in the 5.2.2 below

The eligible European countries are presented in the Appendix.

#### 5.2.2 Exclusion of constituents

##### EXCLUSIONS RELATED TO CONTROVERSIES

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

- a. Controversial weapons: anti-personnel landmines, cluster munitions, nuclear weapons, biological & chemical weapons and ammunition containing depleted uranium.
- b. Controversies related to Environmental, Social or corporate Governance
- c. Companies pertaining to the ICB Subsectors Tobacco (3785) and Defense (2717)

The list of controversies is available on Euronext website:

<https://www.euronext.com/fr/products/indices/QS0011131735-XAMS/market-information>

##### EXCLUSIONS RELATED TO ENERGY

The shares of 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.

### EXCLUSIONS RELATED TO THE CDP

Companies not answering or declining to participate to the CDP questionnaire will automatically be excluded from the selection.

Euronext is committed toward more transparency. As such, Euronext will contact companies excluded for not answering to the CDP in order to emphasize the importance of disclosing progresses on combating climate change. This exclusion criteria does not apply for the Green Companies.

### 5.2.3 Segmentation of the Universe

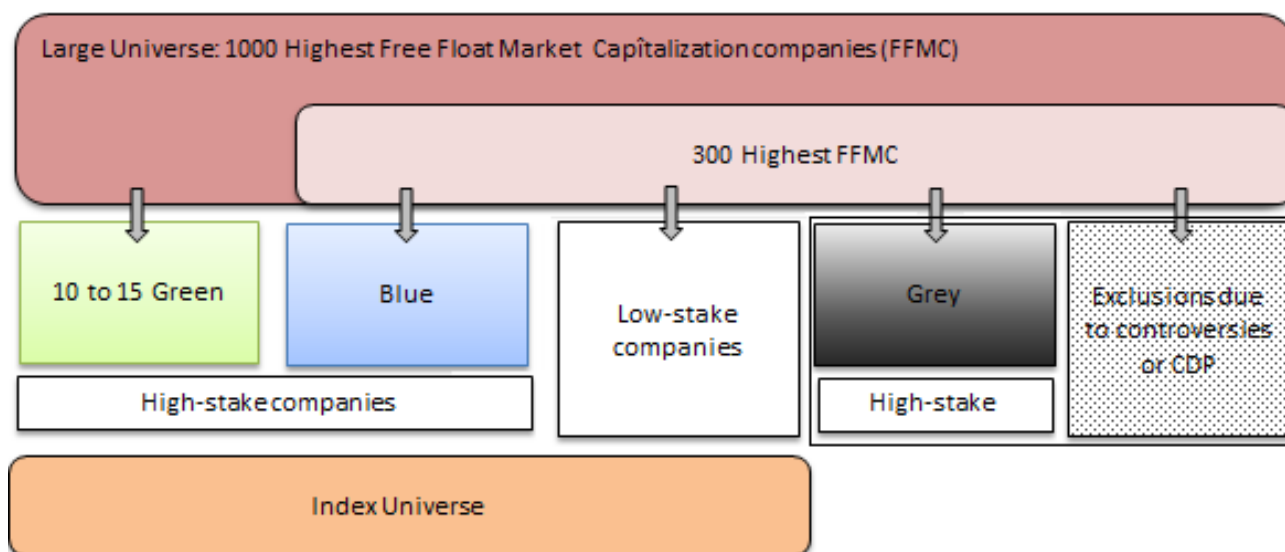
The Index Universe is divided into 2 large segments (high and low carbon stakes segments) which in turn give 4 categories: the Green, Blue, Grey and Low-stake companies.

Carbone 4 analyses the Index Universe with the Carbon Impact Analytics (CIA) methodology (description in [7.2.1](#)). It enables to divide the Index Universe in 2 distinct parts: the High-Stake (Green, Grey and Blue Companies) and the Low-stake companies.

The High-stake companies are all the companies included in the following sectors (defined by Carbone 4):

- Energy: production, transformation, transport and supply of fossil fuel as well as production, transport and supply of electricity.
- Energy efficiency solutions related to transport, buildings, industry and energy.
- High carbon intensity sectors: heavy industry, buildings; transport operators and infrastructures, agriculture and agribusiness, forest and paper.

The companies not qualifying as High-stakes form the Low-stake companies.



A climate score (description in [7.2.2](#)) provided by Carbone 4 is used for the selection of the High-Stake companies (excl. the Greens), 1 being excellent and 5 being poor.

The full Carbone 4 methodology is available on:

<http://www.carbone4.com/sites/default/files/CarbonImpactAnalytics.pdf>

The Low-stake companies will be assigned a CDP score, A being excellent and D- poor. CDP methodology is available on: <https://www.cdp.net/Documents/Guidance/2016/Scoring-Introduction-2016.pdf>

The list of companies covered by CIA and CDP is available on Carbone 4 website:

[http://www.carbone4.com/sites/default/files/201512\\_Methode\\_LC100\\_C4\\_0.pdf](http://www.carbone4.com/sites/default/files/201512_Methode_LC100_C4_0.pdf)

The Green Companies

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:

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

#### The Grey Companies

Within the High-stake category, the Expert committee identifies the companies for which most of their activity stems from fossil fuels. The criteria are as follow:

- > 50% of the income is linked to petroleum extraction and/or refining
- > 50% of the income is linked to gas extraction and/or refining
- The income is linked to coal extraction and/or refining (no minimum %)
- Carbon intensity > 400g CO<sub>2</sub> per kWh for an electricity producer

#### The Blue Companies

The companies part of the High-stake category as defined by the CIA methodology but qualifying neither as Green nor Grey.

#### The Low-stake companies

The companies included in the Index Universe but not qualifying as High-stakes form the Low-stake companies. They represent companies with a limited impact on global warming as well as companies pertaining to sectors for which the current standards of disclosure are insufficient to calculate a reliable CIA score.

### **5.2.4 Selection of the 100**

#### The Green Companies

Out of the Green list established during the June review, the 15 companies with the highest percentage of turnover related to “low carbon” technologies the part of the Large Universe will be selected.

If the number of Green Companies selected is below 15, the number of companies pertaining to the other categories (Blue, Grey and Low Stake) will be increased so that the number of index constituents reaches 100. The selection and weighting process described below will apply to the ‘100-N<sub>G</sub>’ Green companies (‘N<sub>G</sub>’ being the number of Green companies selected) in the same way whether the ‘100- N<sub>G</sub>’ is equal to 85 or more.

#### The Blue and Low-stakes Companies

The first step is to determine the number of stocks in the Index Universe covered by CIA against the number covered by CDP.

Each ICB supersector (“Sector”) is divided in 2 subsections, depending on the cover by CIA (subsection Blue or Grey of the Sector) or CDP (subsection Low-stakes of the Sector). For each subsection of each Sector of the Index Universe, a target number of stocks is defined so that:

- the sum of these target numbers equals ‘100- N<sub>G</sub>’,
- the proportion of each target number in the ‘100- N<sub>G</sub>’ stays as close as possible to the proportion of the relevant subsection in the Index Universe ExG (excluding the Green Companies).

To do so, a factor ‘F’ is found such as the sum of the number of companies of each subsection of the Index Universe divided by ‘F’ and rounded to the nearest integer equals ‘100- NG’. If is not possible, to reach ‘100- NG’, the ‘F’ factor resulting to a number of stocks close but superior to ‘100- NG’ will be calculated.

In case the ‘F’ factor leads to a number of stocks superior to the target, the worst scored low stake company will be removed (this step should not bring a super sector to zero low stake company). In case of score equality, the company with the smallest free float market capitalisation will be removed.

The second step consists in selecting the best companies as defined by their CIA scores (Blue and Grey) or CDP scores (Low-stakes) until the target number of stocks is reached in each Sector. Annex 10.2 list the secondary criteria of selection in case of equality, which have been chosen subsection per subsection because of their relevance.

### The Grey Companies

The Grey companies should not be selected and be part of the final index as they are excluded based on rule 5.2.2.

## 5.2.5 Weighting of the 100

### The Green Companies

The objective is to make room for the Green Companies by setting the weight of the Grey Companies at 0.

To calculate the weight of the Green companies, an optimization that satisfies a liquidity constraint as well as an allocation ratio (R) is performed:

o The allocation ratio (R) is defined at the annual review by the Expert Committee, based on macro-economic investments recommendations of a 2 degrees scenario. It is currently set at 0,5 and means there should be as much investment in the Grey companies as in the Green companies to be reached into the economy by 2035 to have a chance to avoid an increase of global temperature over 2° in 2100. The index goes much further as it sets the level of Grey companies at 0.

As an example, if in the Large Universe, the weight of the Green companies is 1% and the weight of the Grey companies is 7%, then in the final index, the weight of Green companies will be 4% and 0% for the Grey companies {  $R=0.5= 4\%/(7\%+1\%)$  }

o The liquidity constraint aims at maintaining the index investability in regards to the Green components. Considering a €2 billion fund, the Green Companies should fulfil the following controls:

- Each Green Companies could be sold within 5 days
- The daily volume related to the sale could not 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

$$W_{green} = \text{Min}\{\text{Liquidity Constraint} | W_{gmax}\}$$

With the following constraints :

$$\text{Liquidity Constraint} = \frac{(PX)_i * (VOL\_AV\_3M)_i * 1,5}{€2bn}$$

$$W_{gmax} = (R * W_{pp} - W_{gc}) / N_{gnc}$$

$$\sum W_{\text{green}} = R * W_{\text{pp}}$$

$N_{\text{gnc}}$  = number of Green companies not capped by the liquidity constraint

$W_{\text{green}}$  = Weight of a specific Green Company

$W_{\text{gmax}}$  = maximum weight of a Green Company

$W_{\text{gc}}$  =  $\sum W_{\text{g}}$  capped by the liquidity constraint

$N_{\text{gnc}}$  = Number of Green Companies non capped by the liquidity constraint

$W_{\text{pp}}$  = Total Weight of the Green and Grey Companies as measured in the Large Universe

PX = Last price expressed in EUR

VOL\_AV\_3M = Average daily volume over the last 3 months

R = Allocation Ratio

### The Blue and Low-stake Companies

An Adapted Large Universe ExG is defined as the Large Universe excluding the Green Companies, in which the weight of each Grey company is modified as follow:

$$WAL_{\text{grey}} = (\sum W_{\text{green}} / \sum W_{\text{grey}}) * W_{\text{grey}}$$

$W_{\text{grey}}$  = Weight of a specific Grey Company into the Large Universe

$WAL_{\text{grey}}$  = Adapted Weight of a specific Grey Company in the Adapted Large Universe ExG

The sum of the weights of the companies into the Adapted Large Universe ExG for a given sector multiplied by  $(100\% - \sum W_{\text{green}})$  defines the target weight for this sector into the Index. The target weight of each subsection, is made proportional to its respective weight in the Index Universe ExG.

In a given subsection of the Index, the weight of each company is calculated such as the sum of their weights equals the weight of the subsection, and the proportions of the weights between these companies remain the same into the subsection and into the Adapted Large Universe ExG.

#### 5.2.6 Selected line

As only one listing – the most active one - is permitted per company, the listing representing the company's ordinary shares is generally used.

## 6. CORPORATE ACTIONS

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### 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 the Compiler ceased to be a viable constituent as defined by the rules, the constituent in question will be removed on a day announced by the Compiler.

If an index component is acquired by another company (component or non-component of the index), the former will be removed on a day announced by the Compiler.

#### 6.2.2 Delistings, suspensions and company distress

If a constituent is suspended, the Supervisor 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 announced by the Compiler.

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 the Compiler, 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 the Compiler 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 as calculated by the Compiler. 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. The Compiler 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 Compiler will adjust the divisor of the index 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. EURONEXT SCORE PROVIDERS

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### 7.1 CDP

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.

More information available on <https://www.cdp.net/Documents/Guidance/2016/Scoring-Introduction-2016.pdf>

### 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:

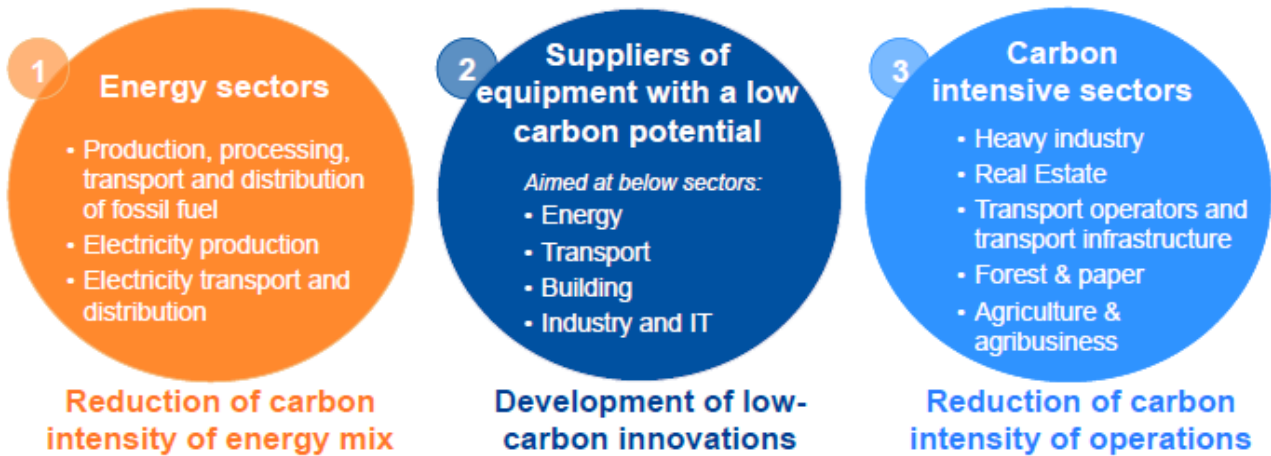
The analysis of the carbon impact of a portfolio begins with an in-depth assessment of each underlying firm, followed by aggregation at the portfolio level. This allows for differentiation between companies in the same business sector, and enables recognition of companies' efforts in integrating climate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

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.

## 8. INDEX CALCULATION FORMULAS

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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 <sup>1</sup>
- $f_{i,t}$  Capping factor of equity i <sup>1</sup>
- $C_{i,t}$  Price of equity i on t
- $X_{i,t}$  Current exchange rate on t <sup>1</sup>
- $d_t$  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  $i^{\text{th}}$  component stock (for net return index withholding tax is deducted from this dividend);
- $w_i$  The weighting of the  $i^{\text{th}}$  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.

$$\text{TR}_t = \text{TR}_{t-1} \left( \frac{\text{IV}_t + \text{XD}}{\text{IV}_{t-1}} \right)$$

Where:

- $\text{TR}_{t-1}$ : Total return index value yesterday;
- $\text{TR}_t$ : Total return index value on t;
- $\text{IV}_{t-1}$ : Underlying price index yesterday;
- $\text{IV}_t$ : Underlying price index on t;

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<sup>1</sup> Factor is equal to 1 if not applied for the index

## 9. DEFINITIONS

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### 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:

- i. are open for investment to investors or tradable on the market; and
- ii. have a diversified portfolio; and
- iii. 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 COMPILER

Committee of Euronext officials appointed by Euronext.

### 9.4 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.



## 10. APPENDIX

### 10.1 LIST OF ELIGIBLE COUNTRIES

Austria	Germany	Netherlands	Switzerland
Belgium	Greece	Norway	United Kingdom
Denmark	Ireland	Portugal	
Finland	Italy	Spain	
France	Luxembourg	Sweden	

### 10.2 SECONDARY CRITERIA FOR SELECTION

	Rules of selection in case of equality	Other criteria in case of equality
<b>The Blue and Grey Companies</b>	the 2 <sup>nd</sup> criteria that applies depends on the company's sector	
	Food & Beverage	CIR (the Carbon Impact Ratio): the ratio of total emission savings to total induced emissions
	Chemicals	CIR
	Oil & Gas	% gas in P1 reserves
	Industrial Goods & Services	Tons of CO <sub>2</sub> per euro of EV (Enterprise Value)
	Automobiles & Parts	CIR
	Utilities	Tons of CO <sub>2</sub> per euro of EV (Enterprise Value)
	Personal & Household Goods	CIR
	Basic Resources	% of coal in the turnover
	Real Estate	CIR
	Construction & Materials	CIR
	Travel & Leisure	CIR
	Utilities	CIR
		3/ The best CDP score 4/ The highest free float market capitalization
<b>The Low-stake Companies</b>	2/ The best CDP score	3 / highest free float market capitalization

### 10.3 CDP EQUIVALENCE TABLE

CDP Score Alphabet	CDP Score Numeric
A	1
A-	2
B	3
B-	4
C	5
C-	6
D	7
D-	8
AQ*	8
F**	9
NR***	excluded

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

NR\*\*\*: No response