

# Calculation Guidelines

ROBO Global® Robotics and Automation UCITS Index

ROBO Global® Robotics and Automation UCITS Price Return Index

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# Contents

## Introduction

1. **Index specifications**
  - 1.1. Index codes and tickers
  - 1.2. Initial value
  - 1.3. Distribution
  - 1.4. Prices and calculation frequency
  - 1.5. Weighting
  - 1.6. Decision-making bodies
    - 1.6.1. *Advisory Index Committee*
    - 1.6.2. *Supervisory Index Committee*
  - 1.7. Publication
  - 1.8. Historical data
  - 1.9. Licensing
2. **Composition of the Index**
  - 2.1. ROBO Global<sup>®</sup> Industry Classification
  - 2.2. Index construction
  - 2.3. Ordinary adjustment
3. **Calculation of the Index**
  - 3.1. Index formula
  - 3.2. Accuracy
  - 3.3. Extraordinary Events
    - 3.3.1. *Distributions*
    - 3.3.2. *Corporate actions*
    - 3.3.3. *Capital increases*
    - 3.3.4. *Share splits and par value conversions*
    - 3.3.5. *Spin-offs*
    - 3.3.6. *Calculation of the Index in the event of a Market Disruption Event*
4. **Definitions**
5. **Appendix**
  - 5.1. Contact data
  - 5.2. Calculation of the Index – change in calculation method
  - 5.3. History of changes made to the Calculation Guidelines

This document contains the rules regarding the structure and calculation of the ROBO Global<sup>®</sup> Robotics and Automation UCITS Index (the “**Net Total Return Index**”) and ROBO Global<sup>®</sup> Robotics and Automation UCITS Price Return Index (the “**Price Index**”) (the “**Index**”, or, “**Indices**”, as the context requires) (the “**Guidelines**”). Solactive AG shall make every effort to implement such rules. Solactive AG does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the Index nor the Index value at any point in time nor in any other respect. The Index is calculated and published by Solactive AG without warranty, and Solactive AG shall strive to the best of its ability to ensure the correctness of the calculation. There is no obligation for Solactive AG to notify third parties directly, including investors and/or financial intermediaries, of any errors in the Index. In case of any errors in the Index, the Solactive AG will announce such errors on its website. The publication of the Index by Solactive AG is not a recommendation for capital investment and does not indicate any assurance or opinion of Solactive AG regarding a possible investment in a financial instrument based on the Index.

# Introduction

These Guidelines are to be used with respect to the composition, calculation and management of the Index. The process for any changes to these Guidelines is specified in Section 1.6.

The Index was designed and created by ROBO Global LLC and ROBO Global Partners Ltd (together, “ROBO Global<sup>®</sup>”). Solactive AG is responsible for calculating and publishing the Index (the “**Calculation Agent**”).

The names “ROBO Global” and “Solactive” are trademarked.

## 1. Index specifications

The Index is designed to measure the performance of robotics-related and/or automation-related companies. The Index is comprised of companies involved in the rapidly developing global robotics and automation industry which satisfy minimum criteria relating to Market Capitalisation and average daily value traded and which are listed on recognised global stock exchanges.

The ROBO Global<sup>®</sup> Robotics and Automation UCITS Index is calculated as a *net total return* index.

The ROBO Global<sup>®</sup> Robotics and Automation UCITS Price Return Index is calculated as a *price return* index.

The Index is calculated and published in USD.

### 1.1. Index codes and tickers

Index name	ROBO Global <sup>®</sup> Robotics and Automation UCITS Index
ISIN	DE000SLA4RB7
WKN	SLA4RB
Bloomberg	ROBOT Index
Reuters	.ROBOT

Index name	ROBO Global <sup>®</sup> Robotics and Automation UCITS Price Return Index
ISIN	DE000SLA5RB4
WKN	SLA5RB
Bloomberg	ROBOTPR Index
Reuters	.ROBOTPR

### 1.2. Initial value

The back-dated Index level of the ROBO Global<sup>®</sup> Robotics and Automation UCITS Index was 100 as of the close of trading on the start date of December 31<sup>st</sup>, 2003. The back-dated Index level of the ROBO-Global<sup>®</sup> Robotics and Automation UCITS Price Return Index was 100 as of the close of trading on the start date of December 31<sup>st</sup>, 2003.

Both Indices began ticking live on June 16<sup>th</sup>, 2014.

### 1.3. Distribution

The Index is published via the price marketing services of Boerse Stuttgart AG and is distributed to all affiliated vendors. Each vendor determines whether they will distribute/display the index data via their respective information systems.

## 1.4. Prices and calculation frequency

The Index is calculated on each Business Day based on the prices on the respective Exchanges relevant to each Index Component. At any given point during the period in which the Index is calculated, the last traded prices of all Index Components are used. If there is no last traded price for an index component on a Business Day, the most recent last traded price on Reuters for the preceding Business Day is used in the calculation.

Where applicable, Exchange prices of Index Components not listed in the Index Currency are converted using spot foreign exchange rates quoted by Reuters. The daily Index Closing Level is calculated using Reuters/WMCO closing spot rates as at 4pm London time.

The Index is a *real-time* index which is calculated every Business Day from 9:30am to 4:30pm, GMT (Greenwich Mean Time). It is calculated every 15 seconds. In the event that data cannot be provided to the pricing services of Boerse Stuttgart AG, the publication of the Index values and any distribution thereof may be delayed.

Any incorrect calculation of the Index shall be adjusted on a retrospective basis and announced on [www.solactive.com/?s=Global&index=DE000SLA4RB7](http://www.solactive.com/?s=Global&index=DE000SLA4RB7)

## 1.5. Weighting

As of the close of business on each Rebalance Date, the Index Components shall be reweighted as part of the quarterly reconstitution of the Index as further described in Section 2.3 of these Guidelines by reference to their last Traded Prices on the relevant Exchange.

## 1.6. Decision-making bodies

### 1.6.1. Advisory Index Committee

A committee composed of representatives from ROBO Global LLC and ROBO Global Partners Ltd (the “**Advisory Index Committee**”) is responsible for the design and creation of these Guidelines and any periodic amendments thereto.

Members of the Advisory Index Committee may at any time recommend changes to these Guidelines (including the Index selection criteria and list of Eligible Exchanges) by submitting any proposed changes to the Advisory Index Committee for consideration and approval in advance of the next quarterly Scheduled Determination Date. Following approval by the Advisory Index Committee, such changes shall be implemented by way of an update to these Guidelines which shall be published on [www.solactive.com/?s=Global&index=DE000SLA4RB7](http://www.solactive.com/?s=Global&index=DE000SLA4RB7)

The Advisory Index Committee typically convenes on a quarterly basis in advance of each quarterly Scheduled Determination Date.

### 1.6.2. Supervisory Index Committee

Where an Extraordinary Event occurs or is occurring, a committee composed of staff from the Calculation Agent (the “**Supervisory Index Committee**”) shall be responsible for implementing the procedures described in Section 3 of these Guidelines.

## 1.7. Publication

All specifications and information relevant for calculating the Index are made available on [www.solactive.com/?s=Global&index=DE000SLA4RB7](http://www.solactive.com/?s=Global&index=DE000SLA4RB7). This includes the composition of the Index as well as the respective weightings of the Index Components, which shall be published on a retrospective basis in respect of each Rebalance Date on the Business Day immediately following such Rebalance Date.

## 1.8. Historical data

Historical index level data is available from December 31<sup>st</sup>, 2003.

## 1.9. Licensing

Licenses to use the Index as the underlying value for derivative instruments may be issued to stock exchanges, banks, financial services providers and investment houses by ROBO Global®.

# 2. Composition of the Index

## 2.1. ROBO Global® Industry Classification

The components of the Index are classified according to the Robotics and Automation Industry Classification maintained by ROBO Global® (the “**ROBO Global® Industry Classification**”). The ROBO Global® Industry Classification is a definitive system for categorizing global publicly listed companies within the robotics and automation industry enabling the comparison of companies across three levels of classification.

The ROBO Global® Industry Classification aims to identify all those publicly listed companies (globally) that derive all or a “material” proportion of their revenues from robotics-related and/or automation-related products and/or services and is intended to capture companies throughout the “production value chain”. The production value chain includes not just the manufacture of physical robots but also the software and technology that enable the automation.

Within the ROBO Global® Industry Classification, companies are sub-classified as either “bellwether” or “non-bellwether” companies. “*Bellwether*” companies are well established leading companies in the robotics and automation industry the majority of whose business and revenue is directly related to robotics and automation. “*Non-bellwether*” companies are companies whereby a distinct portion of their business and revenue relates to robotics and automation with the potential to grow within the robotics and automation space through continued innovation and/or market adoption of their products and/or services.

Companies within the ROBO Global® Industry Classification are further sub-classified into the following 13 sub-sectors under either Technology or Applications, the number of which is expected to increase as the robotics and automation industry continues to evolve:

### Technology:

- Sensing
- Processing
- Actuation
- Computing
- Integration

### Applications:

- Manufacturing & Industrial Automation
- 3D Printing
- Logistics Automation
- Agriculture
- Surveillance / Security
- Energy
- Healthcare
- Consumer Products

Please refer to [www.roboglobal.com](http://www.roboglobal.com) for more information relating to the ROBO Global® Industry Classification.

## 2.2. Index construction

The initial composition of the Index, as well as any additions or deletions, are determined on each Determination Date and applied on the corresponding Rebalance Date.

Companies listed within the ROBO Global® Industry Classification pass through a series of filters before they can become an Index Component. The selection of the Index Components from the ROBO Global® Industry Classification is carried out by the Calculation Agent in accordance with the following predetermined rules and objective criteria:

1. Companies not publicly traded on an Eligible Exchange are ineligible for inclusion in the Index. Changes to the list of Eligible Exchanges may be revised at the discretion of the Advisory Index Committee from time to time. Any such changes to the list of Eligible Exchanges shall be effective in respect of the next occurring Determination Date and published on [www.solactive.com/?s=Global&index=DE000SLA4RB7](http://www.solactive.com/?s=Global&index=DE000SLA4RB7)
2. Companies with a Market Capitalization of less than USD 200,000,000 as at the relevant Determination Date are removed.
3. Companies with a trailing 3 month average daily value traded as at the relevant Determination Date of less than USD 500,000<sup>1</sup> are removed.
4. The Index employs the following approach to weighting:
  - Stocks identified as “bellwether” within the ROBO Global® Industry Classification have a fixed allocation of 40% within the Index;
  - Stocks identified as “non-bellwether” within the ROBO Global® Industry Classification have a fixed allocation of 60% within the Index;
  - Within each of the “bellwether” and “non-bellwether” segments of the Index, the stocks are equally weighted.
5. The Index requires a minimum of 65 Index Components with at least 15 “bellwether” stocks and 45 “non-bellwether” stocks<sup>2</sup>.
6. The Index has a maximum of 200 Index Components with a cap of 80 “bellwether” stocks and 120 “non-bellwether” stocks<sup>2</sup>.

<sup>1</sup> Please note that, on the Rebalance Date dated 30 September 2014, the minimum 3 month average daily value traded value was reduced from USD 1,000,000 to USD 500,000 and effective with respect to the calculation period beginning on 01 October 2014.

<sup>2</sup> Please note that, on the Rebalance Date dated 30 September 2014, this was included as an additional selection criteria and effective with respect to the calculation period beginning on 01 October 2014.

## 2.3. Ordinary adjustment

The composition of the Index is ordinarily adjusted on a quarterly basis after the close on the relevant Rebalance Dates in accordance with the criteria set out in Section 2.2 above. The proposed Index composition and *indicative* weightings of each of the Index Components (including details relating to the companies that are being included in/removed from the Index) shall be announced by the Calculation Agent on the relevant Determination Date (i.e. in advance of the corresponding Scheduled Rebalance Date).

The Calculation Agent shall publish all details relating to the rebalance of the Index (i.e. the *actual* weights) on the Business Day after each relevant Rebalance Date.

## 3. Calculation of the Index

### 3.1. Index formula

The Index Closing Level on Business Day  $t$ ,  $Index_t$ , is calculated in accordance with the following formula:

$$\blacksquare \quad Index_t = \sum_{i=1}^{N_{t-1}} x_{t-1}^i * p_t^i * FX_t^i \quad (Equation 1)$$

Where:

$x_{t-1}^i$	The Number of Shares of Index Component $i$ on Business Day $t - 1$
$p_t^i$	Trading Price of Index Component $i$ on Business Day $t$
$FX_t^i$	1 (one) unit of the local currency of Index Component $i$ converted into the Index Currency on Business Day $t$ at the official WM/Reuters rate as published at 4pm UK time.
$N_{t-1}$	The Index Components existing as of Business Day $t - 1$

### 3.2. Accuracy

The value of the Index will be rounded to two decimal places.

The Number of Shares of the Index Components will be rounded to six decimal places.

Trading Prices will be rounded to four decimal places.

### 3.3. Extraordinary Events

The Index shall be adjusted for systematic changes in prices once these become effective. This requires the new Number of Shares of the affected Index Component to be calculated on an ex-ante basis. Following the Supervisory Index Committee's decision, the Index is adjusted for distributions, capital increases, rights issues, splits, par value conversions and capital reductions as outlined below.

This procedure ensures that the first ex quote can be properly reflected in the calculation of the Index. This ex-ante procedure assumes the general acceptance of the Index calculation formula as well as open access to the parameter values used. The calculation parameters are provided by the Calculation Agent.

The Trading Price for an affected Index Component on the day an Extraordinary Event comes into effect, is the last available market price for this Index Component quoted on the Exchange

on the day the event occurred (or, if a market price is not available for the day the event came into effect, the last available market price quoted on the Exchange on a day specified as appropriate by the Calculation Agent) and this price is used as the Trading Price of the particular Index Component until the next Rebalance Date.

When an Index Component's trading has been halted, the Calculation Agent shall hold the affected Index Component at its most recent closing price until trading is resumed or is officially delisted. Determination for removal will be made on a case-by-case basis and based upon reasonable likelihood of trade resumption and likelihood of residual value returned to stock holders. The Supervisory Index Committee may consult with managers of portfolios linked to indices in which the affected component is a constituent in determining its fair value. Should removal be deemed appropriate, announcement will be made at zero value (for system purposes the actual value used is .0001, in local currency).

Stocks that are scheduled for inclusion in/removal from the Index but which are halted or suspended prior to rebalance will have their scheduled updates postponed and will be monitored for trade resumption. Once trading resumes, these securities changes will be announced and will have their positions updated accordingly. Depending on the nature of the halt or suspension, the Supervisory Index Committee may decide to delete the affected security from the index.

In the event of the Insolvency of an Index Component, the Index Component shall remain in the Index until the next Rebalance Date. As long as a market price for the affected Index Component is available on a Business Day, this shall be applied as the Trading Price for the relevant Index Component on the relevant Business Day, as determined in each case by the Calculation Agent. If a market price is not available on a Business Day, the Trading Price for this Index Component is set to zero per above. The Calculation Agent may also decide to eliminate the respective Index Component at an earlier point in time prior to the next Rebalance Date if there is no reasonable expectation that the Index Component will emerge from Insolvency in the near future.

Table 1 below summarizes **potential** events for which adjustments may be made by the Calculation Agent.

Event	Adjustment	Adjustment Treatment
Cash/Special or Extraordinary Distributions	Yes	The distribution is reinvested in that stock.
Return on Capital	Yes	The distribution is reinvested in that stock.
Stock Distribution	Yes	Where shareholders receive "B" new shares for every "A" share held, the Number of Shares is adjusted by multiplying the original Number of Shares by the quotient of (a) the sum of A and B divided by (b) A.
Stock Split	Yes	Where shareholders receive "B" new shares for every "A" share held, the Number of Shares is adjusted by multiplying the original Number of Shares by the quotient of B divided by A.
Share Repurchase	No	No Adjustment.
Acquisition or Merger (Target Company is in the Index)	Yes	If acquired share is Delisted (as defined below), the cash proceeds from the acquisition are reinvested proportionally (based on the current weight) among the other Index Components. Where shares are issued, such shares are deemed to be sold on the date of issuance and cash proceeds reinvested as described in the preceding sentence.



Acquisition or Merger (Acquirer is in the Index)	No	If the surviving company is already an Index Component, it is retained in the Index.
Acquisition or Merger (both Acquirer and Target Company are in the Index)	Yes	If the acquired Index Component is Delisted (as defined below), the cash proceeds from the acquisition are proportionally distributed to the remaining Index Components, according to the terms of the merger/acquisition agreement. Where shares are issued, such shares are deemed to be sold on the date of issuance and cash proceeds reinvested as described in the preceding sentence.

If a stock that is a constituent of the Index is Delisted, the cash value of such stock's position in the Index, based on the latest available market price prior to the delisting, is reinvested proportionally (based on the current weights) among the other Index Components.

Note that if an Index Component is both (i) affected by an event listed in Table 1 and (ii) Delisted, such constituent will be adjusted as described in Table 1. An Index Constituent will be deemed to be "Delisted" when the Exchange (as defined under "Market Disruption Events" below) for such constituent announces that the constituent ceases (or will cease) to be listed, traded or publicly quoted on the Exchange for any reason and is not immediately re-listed, re-traded or re-quoted on any of the Affiliated Exchanges (or their respective successors); if the constituent is immediately re-listed, re-traded or re-quoted on any such exchange or quotation system, such exchange or quotation system shall be deemed to be the Exchange and the stock will not be deemed to be Delisted.

For events not listed in Table 1 above, the Calculation Agent may make adjustments if it determines that the event could have a diluting or concentrative effect on the theoretical value of the underlying stock and would not otherwise be accounted for in the Index. Any such adjustments are publicly announced in advance wherever practicable.

### 3.3.1. Distributions

Distributions paid by the Index Components are automatically re-invested into the Net Total Return Index subject to the relevant Withholding Tax Rate.

Any distributions shall trigger an adjustment of the Number of Shares of the corresponding Index Component. The new Number of Shares is calculated as follows:

$$\blacksquare \quad x_t^i = x_{t-1}^i * \frac{p_{t-1}^i}{p_{t-1}^i - D_t^i} \quad (\text{Equation 2})$$

Where:

$x_t^i$	The Number of Shares of Index Component $i$ on Business Day $t$
$p_{t-1}^i$	Trading Price of Index Component $i$ on Business Day $t - 1$
$D_t^i$	Net Distribution Rate of Index Component $i$ on Business Day $t$

### 3.3.2. Corporate actions

Following the announcement by an Index Component of the terms and conditions of a corporate action, the Supervisory Index Committee shall determine whether such corporate action has a dilution, concentration or other effect on the price of the Index Component.

Should such effect be deemed to have occurred, the Supervisory Index Committee shall make the necessary adjustments to the affected Index Component and/or the formula for calculating the Index and/or to other terms and conditions of this document that is deemed appropriate in order to take into account the dilution, concentration or other effect and shall determine the date on which this adjustment shall come into effect.

For corporate actions not described herein, or combinations of different types of corporate events and other exceptional cases, the Calculation Agent reserves the right to determine the appropriate implementation method.

### 3.3.3. Capital increases

Should there be a capital increase (from the Index Component's own resources or through cash contributions), the new Numbers of Shares shall be calculated as follows:

$$\text{i) } x_t^i = x_{t-1}^i * \frac{p_{t-1}^i}{p_{t-1}^i - rB_{t-1}^i} \quad (\text{Eq.3.1}) \quad \text{ii) } rB_{t-1}^i = \frac{p_{t-1}^i - B - N}{BV + 1} \quad (\text{Eq. 3.2})$$

Where:

$x_t^i$	Number of Shares of Index Component $i$ on the day of the distribution
$p_{t-1}^i$	Trading Price on the day prior to ex-date
$rB_{t-1}^i$	Calculated value of rights issue
$B$	Price of rights issue
$N$	Distribution disadvantage
$BV$	Subscription ratio
$B = 0$	If capital is increased from the company's own resources.

The last Distribution paid or the announced Distribution proposal is applied as the Distribution disadvantage.

### 3.3.4. Share splits and par value conversions

Should there be Share splits and par value conversions it is assumed that the prices shall change in ratio to the Number of Shares or to the par values. The new number of Shares shall be calculated as follows:

$$\blacksquare \quad x_t^i = x_{t-1}^i * \frac{N_{t-1}^i}{N_t^i} \quad (\text{Equation 4})$$

Where:

$N_t^i$	New par value of security class $i$ (or new Number of Shares) on Business Day $t$
$x_t^i$	Number of Shares of affected Index Component $i$ on Business Day $t$

### 3.3.5. Spin-offs

In case of a spin-off affecting an Index Component, the Index is adjusted as follows:

The spun-off company is added to the Index based on the terms of the spin-off and remains in the Index. In the event that a spun-off company cannot be added, the Calculation Agent will inform the Advisory Index Committee and announce the outcome on:

[www.solactive.com/?s=Global&index=DE000SLA4RB7](http://www.solactive.com/?s=Global&index=DE000SLA4RB7).

### **3.3.6. Calculation of the Index in the event of a Market Disruption Event**

An Index may not be calculated in the event of a Market Disruption Event. If the Market Disruption Event continues for a sustained period, the Calculation Agent calculates the Index value, taking into account the market conditions prevailing at this point in time, the last quoted Trading Price for each of the Index Components as well as any other conditions that it deems relevant for calculating a fair value Index value.

## 4. Definitions

**“Advisory Index Committee”** means the committee at ROBO Global LLC and ROBO Global Partners Ltd whose roles and responsibilities are outlined in Section 1.6.1 of these Guidelines.

An **“Affiliated Exchange”** is with regard to an Index Component an exchange, a trading or quotation system on which options and futures contracts on the Index Component in question are traded, as specified by Solactive AG.

**“Business Day”** means a weekday on which commercial banks in the US were to open.

**“Calculation Agent”** is Solactive AG or any appointed successor thereto.

**“Determination Date”** is the prevailing Business Day on which the respective Scheduled Determination Date occurred.

An **“Eligible Exchange”** is one which satisfies the following criteria as determined by the Advisory Index Committee and which shall be published on [www.solactive.com/?s=Global&index=DE000SLA4RB7](http://www.solactive.com/?s=Global&index=DE000SLA4RB7):

1. **Regulated:** The market must be regulated. Such a market is subject to supervision by an authority or authorities, duly appointed or recognised by the state in which it is located. The authority(ies) should generally have the power to impose capital adequacy rules, to supervise directly members of the market, to impose listing standards, to ensure transparency in dealings and to impose penalties where breaches of rules or standards occur. The clearance and settlement system for transactions should also be regulated and should have acceptable settlement periods.
2. **Recognised:** The market must be recognised or registered by an authority or authorities, duly appointed or recognised by the state in which it is located.
3. **Operating Regularly:** Trading must take place with reasonable frequency and the market should have regular trading hours. In assessing this criteria, reference shall be made to liquidity in the market, including the number of members/participants, and the ability of the market to provide fair prices on an ongoing basis.
4. **Open to the public:** The market must be open to the public. The public should have direct or indirect access to the securities traded on the market. The degree to which overseas investors are permitted to invest and any rules which may impede the repatriation of capital or profits shall be taken into account when assessing whether this criteria is satisfied.

**“Exchange”** is, in respect of every Index Component, the respective primary exchange where the Index Component has its primary listing. The Committee may decide to declare a different stock exchange the “Exchange” for trading reasons, even if the Index Component is only listed there via a Stock Substitute.

**“Extraordinary Event”** shall be defined as:

- a Merger;
- a Takeover Bid;
- Trading Halt
- a Delisting;
- the Nationalisation of an Index Component, its business as a going concern or its assets; or
- Insolvency.

**“Index Component”** means (as of Business Day t) the shares included in the Index as of Business Day t

The **“Index Currency”** is US-Dollar.

**“Insolvency”** occurs with regard to an Index Component if (A) all shares of the respective issuer must be transferred to a trustee, liquidator, insolvency administrator or a similar public officer as result of a voluntary or compulsory liquidation, insolvency or winding-up proceedings or comparable proceedings affecting the

issuer of the Index Components or (B) the holders of the shares of this issuer are legally enjoined from transferring the shares.

**“Market Capitalisation”** is with regard to each of the companies in the ROBO Global<sup>®</sup> Industry Classification on a Determination Date or Rebalance Date the value of the relevant issued shares calculated by multiplying the Number of Shares outstanding by the share price and converted into the Index Currency.

A **“Market Disruption Event”** occurs if:

1. one or more of the following events occurs or exists on a Trading Day prior to the opening quotation time for an Index Component:
  - (A) trading is suspended or restricted (due to price movements that exceed the limits allowed by the Exchange or an Affiliated Exchange, or for other reasons):
    - a. across the whole Exchange; or
    - b. in options or futures contracts on or with regard to an Index Component or an Index Component that is quoted on an Affiliated Exchange; or
    - c. on an Exchange or in a trading or quotation system (as determined by the Calculation Agent) in which an Index Component is listed or quoted; or
  - (B) an event that (in the assessment of the Calculation Agent) generally disrupts and affects the opportunities of market participants to execute on the Exchange transactions in respect of a share included in the Index or to determine market values for a share included in the Index or to execute on an Affiliated Exchange transaction with regard to options and futures contracts on these shares or to determine market values for such options or futures contracts; or
2. trading on the Exchange or an Affiliated Exchange is ceased prior to the usual closing time (as defined below), unless the early cessation of trading is announced by the Exchange or Affiliated Exchange on this Trading Day at least one hour before
  - a. the actual closing time for normal trading on the Exchange or Affiliated Exchange on the Trading Day in question or, if earlier.
  - b. the closing time (if given) of the Exchange or Affiliated Exchange for the execution of orders at the time the quote is given; or
3. a general moratorium is imposed on banking transactions in the country in which the Exchange is resident if the above-mentioned events are material in the assessment of the Calculation Agent, whereby the Calculation Agent makes his decision based on those circumstances that he considers reasonable and appropriate.

A **“Merger”** is:

1. a change in the security class or a conversion of a share class that results in a transfer or an ultimate definite obligation to transfer all the shares in circulation to another legal entity;
2. a merger (either by acquisition or through forming a new structure) or a binding obligation on the part of the issuer to exchange shares with another legal person (except in a merger or share exchange under which the issuer of the relevant Index Component is the acquiring or remaining entity and which does not involve a change in security class or a conversion of all the shares in circulation);
3. a takeover offer, exchange offer, other offer or another act of a legal person for the purposes of acquiring or otherwise obtaining from the issuer 100% of the shares issued that entails a transfer or the irrevocable obligation to transfer all shares (with the exception of shares which are held and controlled by the legal person); or
4. a merger (either by acquisition or through forming a new structure) or a binding obligation on the part of the issuer of the shares or its subsidiaries to exchange shares with another legal entity, whereby the issuer of the share is the acquiring or remaining entity and it does not involve a change in the class or a conversion of the all shares issued, but the shares in circulation directly prior to such an event (except for shares held and controlled by the legal person) represent in total less than 50% of the shares in circulation directly subsequent to such an event.

**“Nationalisation”** is a process whereby all shares or the majority of the assets of the issuer of the shares are nationalised or are expropriated or otherwise must be transferred to public bodies, authorities or institutions.

**“Net Distribution Rate”** is the gross distribution rate paid out by a company adjusted for the relevant Withholding Tax Rate. It is calculated as 1 minus the applicable Withholding Tax Rate and/or other applicable tax rate currently prevalent in the respective country multiplied with the gross distribution rate.

**“Normal Exchange Closing Time”** is the time at which the Exchange or an Affiliated Exchange is normally closed on working days without taking into account after-hours trading or other trading activities carried out outside the normal trading hours.

**“Number of Shares”** is in respect of an Index Component and any given Business Day the number or fraction of shares included in the Index. It is calculated for any Index Component as the ratio of (A) the Percentage Weight of an Index Component multiplied by the Index value and (B) its Trading Price.

**“Percentage Weight”** of an Index Component is the ratio of its Trading Price multiplied by its Number of Shares divided by the Index value.

**“Rebalance Date”** is the prevailing Business Day on which the respective Scheduled Rebalance Date occurred.

**“Scheduled Business Day”** is a day on which commercial banks in the US are scheduled to be open.

**“Scheduled Determination Date”** is the Scheduled Business Day which is 5 (five) Scheduled Business Days prior to the Scheduled Rebalance Date.

**“Scheduled Rebalance Date”** is the third Friday in March, June, September and December which must be a Scheduled Business Day. If the third Friday is not a Scheduled Business Day then the third Thursday will be used in the same manner and so on.

**“Stock Substitute”** includes in particular American Depositary Receipts (ADR) and Global Depositary Receipts (GDR).

**“Supervisory Index Committee”** means the committee at the Calculation Agent whose roles and responsibilities are outlined in Section 1.6.2 of these Guidelines

A **“Takeover Bid”** is a bid to acquire, an exchange offer or any other offer or act of a legal person that results in the related legal person acquiring as part of an exchange or otherwise more than 10% and less than 100% of the voting rights in respect of the issuer of the Index Component or the right to acquire these voting rights, as determined by the Calculation Agent based on notices submitted to public or self-regulatory authorities or other information considered by the Calculation Agent to be relevant.

A **“Trading Day”** is in relation to the Index or an Index Component a Trading Day on the Exchange (or a day that would have been such a day if a market disruption had not occurred), excluding days on which trading may be ceased prior to the Normal Exchange Closing Time. The Calculation Agent is ultimately responsible as to whether a certain day is a Trading Day with regard to the Index or an Index Component or in any other connection relating to this document.

The **“Trading Price (or “Traded Price”)** in respect of a Trading Day is the closing price on the relevant Trading Day determined in accordance with the Exchange regulations. If the Exchange has no closing price for an Index Component, the Calculation Agent shall determine the Trading Price and the time of the quote for the share in question in a reasonable manner.

**“Withholding Tax Rate”** is the applicable withholding tax rate relevant to the Net Total Return Index. The currently prevalent Withholding Tax Rates are published on: <http://www.solactive.com/documents-and-downloads/>

## 5. Appendix

### 5.1. Further information

For further information regarding the Index composition and calculation, please contact:

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Bettinastrasse 30  
60325 Frankfurt am Main  
Tel.: +49 69 9760 955 00  
Fax: +49 69 9760 955 25  
[indexing@solactive.com](mailto:indexing@solactive.com)

### 5.2. Calculation of the Index – change in calculation method

The Calculation Agent shall apply the method described above for the composition and calculation of the Index. However it cannot be excluded that the market environment, supervisory, legal, financial or tax reasons may require unforeseen changes to be made to this method. ROBO Global® may prescribe changes to the selection criteria and other rules governing the Index and the method applied to calculate the Index, which it deems to be necessary and desirable in order to prevent material errors or to remedy, and correct or supplement the rules currently described in these Guidelines. The Calculation Agent shall ensure that any amendments to the methodology are updated and published as soon as possible after any changes to the Index are implemented and shall notify all persons who have licensed the use of the Index as far in advance of such implementation as reasonably practicable. Despite the modifications and changes, the Calculation Agent will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.

### 5.3 History of changes made to the Calculation Guidelines

#### 5.3.1 Rebalance date – 30<sup>th</sup> September 2014

In section '2.2 Index construction' two changes were recorded. Firstly, the minimum 3 month average daily value traded value was reduced from USD 1,000,000 to USD 500,000 and effective with respect to the calculation period beginning on 01 October 2014. Secondly, an additional filter was added as follows: "The Index requires a minimum of 65 Index Components with at least 15 "bellwether" stocks and 45 "non-bellwether" stocks."

#### 5.3.2 Rebalance date – 19th December 2014

Within the definitions section the definition for "Scheduled Rebalance Date" was changed from "is the last Scheduled Business Day in March, June, September and December" to the current definition.

Within Section 2.1 ROBO Global® Industry Classification the 14 sub sectors were updated to 13 sub sectors and re-arranged under Technology and Applications. The previously sub –sectors are listed below for reference:

- Machine navigation technology
- Consumer robotics
- Microcontrollers
- Actuation technology
- Technology manufacturing automation
- Energy and subsea remotely operated vehicles (ROVs)
- Machine vision and image recognition
- Agriculture, logistics and material handling automation
- Industrial automation software and equipment
- Components, software and subsystem manufacturing

- Military unmanned aircraft systems (UAS), defence and space
- Healthcare robotics & automation products
- 3D printing technology
- Sensors, motion processing, & voice recognition

### 5.3.3 Rebalance date – 22nd June 2015

Within the sub sectors definitions we renamed one sub sector FROM “**Military unmanned aircraft systems (UAS), defence and space**” TO “**Security, UAS (unmanned aircraft systems) and Space**”

### 5.3.4 Company name and other changes – 17<sup>th</sup> September

Effective September 17<sup>th</sup>, 2015 the company ‘ROBO-STOX Partners Ltd’ was rebranded and renamed ‘ROBO Global Partners Ltd’ and the company ‘ROBO-STOX LLC’ was rebranded and renamed ‘ROBO Global LLC’.

In addition, the following name changes were made to the indices referenced in this methodology which were also effective September 17<sup>th</sup>, 2015:

- The ‘ROBO-STOX<sup>®</sup> Global Robotics and Automation UCITS Index’ was renamed ‘ROBO Global<sup>®</sup> Robotics and Automation UCITS Index’
- The ‘ROBO-STOX<sup>®</sup> Global Robotics and Automation UCITS Price Return Index’ was renamed ‘ROBO Global<sup>®</sup> Robotics and Automation UCITS Price Return Index’.

In Section 2.1 the sub sector “Security, UAS (unmanned aircraft systems) and Space” was renamed “Surveillance / Security”

All references to [www.robostox.com](http://www.robostox.com) were changed to [www.roboglobal.com](http://www.roboglobal.com).