

METHODOLOGY POLICY

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1 PURPOSE

The Benchmarks Regulation (Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016) ('BMR') as well as the Principles for Financial Benchmarks ('IOSCO Principles') published by the International Organization of Securities Commissions ('IOSCO') in July 2013 (FR07/13) give rise to a number of obligations for the index administrators. These address general principles of governance, accuracy, integrity (including adequate governance arrangements to control conflicts of interest and to safeguard confidence in the integrity of an Index), reliability and independence of Indices, as well as transparency in the Index Methodology. One key element of Solactive's response to the regulatory requirements is the implementation of a robust, controlled and auditable Index approval and Index Methodology change process.

This document describes the procedure to govern the process of developing new Indices (New Index Approval Process (**NINA**)), as well as to govern any changes to the Index Methodology.

2 SCOPE

This policy applies globally to all Indices administered by Solactive under the BMR or the IOSCO Principles.

3 GENERAL PRINCIPLES

The term **Index Methodology** is to be understood as the set of rules that directly or indirectly regulate the administration, maintenance and calculation of Indices (including the selection and rebalancing of constituents). This includes the following documents:

- Index Guidelines:
- the Bond Index Methodology;
- the Equity Index Methodology;
- the Input Data Policy;
- the Correction Policy;
- the Disruption Policy;
- the Termination Policy; and
- this Methodology Policy with regard to the procedure for methodology changes.

The Index Methodology is of utmost importance for administrating and calculating, reliable and accurate Indices. A concise and well-documented Index Methodology provides clients and stakeholders with the possibility to thoroughly assess any Index's suitability for their needs, and to understand the ongoing maintenance and calculation procedures.

To ensure the accuracy, integrity, reliability, independence and transparency of the Index Methodology, a process for the creation and approval of new Indices (New Index Approval Process) has been implemented, as well as a process to handle a change of the Index Methodology.



4 PROCEDURES

4.1 NEW INDEX APPROVAL PROCESS (NINA)

The New Index Approval Process is part of the administrator's control framework and designed to address the requirements in terms of the setup (including transparency of the Index Methodology), management and operation of a benchmark. The process itself needs to be initially approved and regularly reviewed (at least annually) by the Oversight Committee. To perform effective oversight on all aspects of the provision of Solactive's benchmarks, the Oversight Committee is to be informed of every launch or start of the live calculation of a benchmark. The Oversight Committee is also responsible to oversee compliance with the New Index Approval Process.

4.1.1 Stakeholders and Responsibilities

Product Development: Product Development Teams are responsible for completing the Index development process for Solactive Indices independently or in close cooperation with clients, as appropriate. As part of this process, the Index Methodology will be defined and documented, and adherence to the BMR and IOSCO Principles requirements will be assured.

Index Management: The ongoing maintenance and management of live Indices are the responsibility of the Index Management Teams. Accordingly, the relevant Index Management Team will be contacted prior to initial set-up of an Index to ensure that the proposed Index is operationally feasible.

Compliance: The Compliance Team ensures that the business units implement procedures and controls to provide effective adherence to the requirements of the BMR and the IOSCO Principles. This includes performing regular controls that staff members have the relevant qualifications, that adequate procedures are implemented and followed, and escalating to management in the case of non-compliance.

Oversight Committee: The Oversight Committee is responsible for the ad hoc review of Index Methodologies (e.g., in case of complaints or occurrence of extraordinary events in respect of the relevant Index). In addition, it is responsible (inter alia) for the oversight of Solactive's control framework, and the management and operation of the Indices.

4.1.2 Process Steps

The New Index Approval Process will follow the steps described in detail as follows:

4.1.2.1 Step 1 - Index Development

All Index development activities will be managed by the respective Product Development Team. Two distinct cases may be considered for Index development:

• Solactive Index Development. This is an iterative development process without the involvement of a client, which is started at the initiative of the Product Development Team.



• Client Index Development. The Index is developed together with a client, who may have varying degrees of involvement, ranging from very passive, to highly iterative and interactive involvement.

It may be the case that other teams within Solactive are occasionally engaged in the activity of Index development alongside their normal responsibilities (such as Research). In these cases, these teams should be subject to all of the requirements, tasks and processes described here for Product Development.

In all cases, Product Development Teams will work on the Index Guidelines describing the Index Methodology. The Index Guideline will be based on standard Index Guideline Templates (as described in the section below).

In the case of any required deviation from the Index Guideline Template, Product Development Teams will obtain guidance from Compliance and document the rationale for the required deviation. In such cases, Compliance will also be requested to provide approval of the final draft Index Guideline (to be documented at the approval stage as <u>described below</u>). However, such Compliance approval must be provided via email and will be limited to the deviation from the Index Guideline Template (it will not extend to the new Index Guideline).

4.1.2.2 Step 2 - Product Development Approval

Index Development: The Index development process may be iterative, requiring numerous stages of enhancement until a final Index Guideline draft is produced. During the Index development process, the Product Development Team will consider a number of key regulatory requirements, including:

- fulfilment of methodology requirements (referring to Articles 12 and 13 of the BMR and Principles 6, 9, 11 and 12 of the IOSCO Principles);
- determination and requirements of the Input Data used, and ensuring that necessary contractual arrangements, including licenses, are in place (Article 11 of the BMR and Principles 7 and 8 of the IOSCO Principles);
- identification of any other service providers (in particular for delivery of selection data and dissemination/publication of Index levels and portfolio composition), and ensuring that the necessary contractual arrangements are in place (Article 10 of the BMR and Principle 2 of the IOSCO Principles); and
- identification of any conflicts of interest (Article 4 of the BMR and Principle 3 of the IOSCO Principles).

Any relevant conflicts of interest will be listed and checked against the conflicts of interest register maintained by Compliance. In case a conflict (or potential conflict) of interest is identified that is not contained in the register, this will be immediately reported to Compliance. Compliance will assess the conflict and if necessary, update the conflicts of interest register.

Index Approval: Once the Index development process is materially complete, the draft Index Guideline will be prepared and a formal approval process is completed at this stage. The Product Development Team will confirm that each of the points mentioned above have been completed and this will be documented. If appropriate, the rationale (and approval from Compliance) of any deviations from the Index Guideline Template will also be documented in the checklist.



If the necessary contractual or service level documentation is not available for Input Data and/or other service providers respectively, the Product Development Team will initiate onboarding with Compliance and Legal Team, as appropriate. The approval process may still proceed, but final approval and start of Index calculation will not be possible until these are resolved.

Documentation Requirements: The approval checklist will be stored along with any supporting documentation, and, in particular, approval emails from relevant sign-off parties in a non-modifiable format in a central file location accessible to the Product Development Teams, the Index Management Teams and Compliance.

4.1.2.3 Step 3 – Operational Acceptance

The draft Index Guideline will be reviewed by the respective Index Management Team. They will ensure that the Index Methodology is operationally feasible (including the application of appropriate calculation, selection and rebalancing mechanisms). In the case of any issues or concerns, this will be discussed with the Product Development Team until a resolution can be found that meets not only the regulatory requirements, but also operational feasibility of the Index under approval. This may result in a reengagement by the Product Development Team with the client, and changes to the Index Methodology and the Index Guideline, which may then require the approval process to be restarted from Step 1.

It is standard practice that the Index Management Teams are involved at an early stage in the Index development lifecycle to ensure a controlled, systematic and efficient process. Furthermore, the Index Management Teams may be involved in the drafting of the Index Guidelines prior to their finalization.

The Index Management Team will confirm their operational acceptance via e-mail to the Product Development Team, who will then update the respective checklist to document the operational acceptance. If ISINs are assigned at this stage, they will be recorded and updated in the respective checklist.

The operational acceptance as part of the New Index Approval Process is completely separate to the maintenance activities that will then be performed. For example, it may be necessary for the Index Management Team to operationally accept a new Index during the approval process that is then not immediately implemented and completely maintained by the Index Management Team. In such cases, there may be a limited transition period following the launch if the Index where in particular the Index rebalance process is overseen by the Product Development Team, until such time that the Index can be handed over to the Index Maintenance Team.

4.1.2.4 Step 4 – Compliance Approval

A compliance control will be performed to ensure that each step in the defined New Index Approval Process has been performed correctly. This control will address the completeness and plausibility of the Index (or family of Indices) under approval, and will also ensure that a conflicts of interest check has been conducted. It will not address the material correctness or functioning of the respective Index (or family of Indices).



Depending on the outcome of the compliance control, it may be necessary to update the conflicts of interest register, or take corrective actions, such as reinforcing training on the application of the New Index Approval Process.

The compliance control is not expected to be performed for every new Index that is approved. As the compliance control is focused on correct application of the New Index Approval Process, it will be sufficient for this to be in the form of ex-post spot checks.

4.1.2.5 Step 5 – Finalization of Process

Following receipt of the feedback and approval from the Index Management Team and Compliance, the Product Development Team will finalize the Index Guideline and produce the respective Benchmark Statement and Compliance Statement.

Once approval is complete, the Product Development Team will ensure that the Index Guideline, the Benchmark Statement and the Compliance Statement are published on the Solactive website, which is a prerequisite for the start of the Index dissemination and publication on the Solactive website. At the same time, the Product Development team will also save the Index Guideline, the Benchmark Statement and the Compliance Statement in a non-modifiable format in a central file location accessible to the Product Development Team, the Index Management Team and Compliance.

The Product Development Team will also provide the Index Guideline, the Benchmark Statement, the Compliance Statement and the New Index Approval Process checklist to the Oversight Committee for acknowledgement. This acknowledgement is not part of the approval process itself. It will be sufficient that the Oversight Committee formally documents acknowledgement of all Index approvals in the previous period on a regular basis.

4.1.3 Index Guideline Templates

A template will be used to standardize the documentation process (the 'Index Guideline Template'). The templates will provide a fixed format, pre-defined fixed text blocks and variable fields that will be completed for each Index (or family of Indices). The variable fields will, inter alia, cover items such as Index objectives and selection/rebalancing methodologies. Any descriptive text fields will be completed following specified standards to ensure consistency from one Index Guideline to another. The Index Guideline Template, along with guidance for the key descriptive text fields, will be approved by Compliance.

No adjustments or changes to the Index Guideline Template will be allowed, or new templates will be created, unless the specific approval of Compliance is given (referring to Step 1 in the New Index Approval Process section above). In this case, the change and formal approval will be documented and stored in a centrally available file location. The updated template will replace the version available to the respective Product Development Teams, and only the new version will be used going forward.

The Index Guideline Template and, based on the template, the final Index Guideline will include, at minimum, the following information:



- a description of the objective or strategy of the Index and the market or economic reality that it is intended to measure;
- the currency or other unit of measurement of the Index;
- the type of Input Data;
- a description of the constituents of the Index and the criteria used for selecting and weighting them;
- a description of situations in which discretion may be exercised (typically in the context of selection of Index constituents for rebalancing and upon occurrence of extraordinary events);
- whether the Index takes into account reinvestment of dividends or coupons paid by its constituents;
- potential limitations of the methodology and descriptions of processes and procedures to be applied in exceptional circumstances, including in the case of market disruptions or in periods of market stress or where transaction data sources may be insufficient, inaccurate or unreliable; and
- a description of the process for regular review of the methodology and potential changes to ensure that it remains representative of the relevant market or economic reality the Index is intended to reflect.

4.2 PROCEDURE FOR CLARIFICATION OF INDEX METHODOLOGY DOCUMENTS

A '**Clarification**' is to be understood as a minor change to the Index Methodology documents that does not adjust/amend the methodology of the Index (e.g., typos, a change in the layout or construction of the text, an update of certain figures; correction of obvious errors, an amendment of a disclaimer).

The Index Management Team that is operationally responsible for the Index will evaluate if the identified need for adjustment/amendment of the Index Methodology documents qualifies as a Clarification. In the case of alleged errors in the Index Methodology, a Clarification can only take place if the potential errors are objectively identifiable from the Index Methodology documents. Such errors can be corrected without informing the Oversight Committee or Compliance.

The change/amendment made to the Index Methodology documents and justification as to why it is considered as a Clarification must be documented (including the names of the employees involved in the assessment) and filed. A dual control principle shall be applied to the assessment. In the case of alleged typos in data, figures or formulas, special care must be taken in the evaluation.

Once the above steps have been performed, the respective Index Methodology documents will be updated. Solactive will generally not issue an announcement for Clarifications.



4.3 PROCEDURE FOR METHODOLOGY CHANGES

The methodology of an Index is determined once (at the time of creation of the Index) and later change is generally not foreseen. However, if indicated by the regular review, a change of the Index Methodology may be necessary and not avoidable (e.g., if the underlying market or economic reality has changed since the launch of the Index, or if the present Index Methodology is based on obsolete assumptions and factors, and no longer reflects the reality as accurately, reliably and appropriately as before).

It may also be that during the maintenance and calculation of an Index over a longer period of time, potential improvements to the Index Methodology are identified that were not foreseen during the initial design phase. Such changes usually amount to a refinement of certain aspects, for example a modification of selection and rebalancing criteria, the treatment of corporate actions or the taxation of dividend payments or other distributions of index constituents. Further practical considerations are also taken into consideration at this stage, such as the suitability of the Index for its intended use as well as the ability or continued ability of users of the Index to hedge any exposure resulting from the issuance of financial instruments linked to the Index in accordance with existing market practice and/or convention.

For the avoidance of doubt, any change to the Index Methodology for an Index for which there is no related financial instrument linked to that Index or which is not licensed to users who would be affected, is not subject to the procedure for a methodology change under this Section 4.3. Any such changes to the Index Methodology will be implemented in accordance with the process described in Section 4.2, "Procedure for clarification of Index Methodology". In addition, and limited to the situation described in this paragraph, Solactive may adjust the historical Index levels, including back tested Index levels, on the basis of the changed Index Methodology.

4.3.1 Classification of the Change

Solactive distinguishes between non-material changes and material changes.

A '**Non-Material Change**' is to be understood as a change not affecting the core of the Index Methodology (e.g., changes to the adjustment period of the Index) or Index Methodology updates resulting from the application of existing methodology principles or minor clarifications of existing rules or corrections without altering the overall concept or the nature of the Index.

A 'Material Change' is considered in the following events:

- change in the objective of the Index (e.g., change in the market or economic reality that the Index is
 intended to represent; addition of exclusion criteria for sustainable investments; addition and/or
 amendment of ESG filters);
- change to the Index Methodology that would alter the overall concept or the nature of the Index and affects the integrity of the Index and its continued comparability over time if such proposed changes to the Index Methodology are expected to have a significant impact on the overall



composition, weighting¹ or level² of the Index following its application. This is in particular the case for changes to the following aspects of the Index Methodology:

- o calculation method or calculation formula:
- determination of Index constituents, including the frequency, the date and time of determination, relevant thresholds, eligibility criteria and definitions (e.g., market cap, average daily traded volume, industry classification, exchange definitions, free float definitions);
- o determination of weights of Index constituents, including the date and time of determination; and
- treatment of ordinary and extraordinary corporate actions.

The Oversight Committee determines whether change is a Material Change as defined above. In case such determination is not possible, the proposed change shall be classified as a Material Change.

4.3.2 Procedure for a Change

Any proposal for a methodology change has to be submitted to the Oversight Committee. Such proposal needs to contain detailed information for the requirement of such change, including a justification as to why the amendment is necessary, as well as a concrete draft of the amendments to the Index Methodology documents.

The Oversight Committee may require additional information where necessary, and may also request an assessment of the practicality of the implementation.

Based on its thorough assessment of the factual situation, the alleged improvements and other implications of the proposed methodology change, the Oversight Committee will take a decision to either approve or disapprove the proposed Change to the Index Methodology. This decision is taken in accordance with the Terms of Reference of the Oversight Committee.

Solactive will not apply a methodology change with retroactive effect.

4.3.2.1 Non-Material Change

Any decision on a Non-Material Change is duly documented and, in the case the change has been approved, announced (in accordance with the procedure described in the <u>Announcement of the Change section below</u>). The respective Index Methodology documents will be amended. The change may be implemented as of the next Index rebalancing date. However, in urgent cases, immediate implementation may be necessary.

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¹ A change in the total weightings of the constituents of less than 5% is generally considered non-significant

² An impact on the index performance of less than 5 basis points p.a. over a historical period of 5 years is generally considered non-significant



4.3.2.2 Material Change

In the case Material Change is considered, a market consultation will be published on the Solactive website www.solactive.com/news/ inviting external parties to comment. The market consultation will consist of a detailed description of the proposed change(s), enabling stakeholder to assess the impact of the proposed change(s).

The length of a consultation period and lead time provided for implementation will be typically no less than four weeks. As a general rule, the length of a consultation period needs to be sufficient for market participants to meaningfully review what is proposed and respond. In instances where a Material Change is deemed to be time sensitive, Solactive may determine that a shorter consultation period is required. This is typically the case for changes that may require consideration or implementation within a shorter timeframe, and where the full consultation time period is not possible. However, Solactive reserves the right to determine the most appropriate consultation period and lead time (including a shorter window for feedback) taking into consideration the complexity of the topic, breadth of client impact as well as impact on the affected Indices.

Feedback is accepted only during the timeframe provided in the market consultation. The consultation period and lead time including a timetable for implementing any proposed methodology changes are clearly communicated as part of the consultation process.

The Oversight Committee may delegate the responsibility for execution of the market consultation (i.e., for publishing the market consultation on the Solactive website, contacting the relevant stakeholders and subscribers, and collecting the feedback) to the Index Management Team that is operationally responsible for the Index. At its sole discretion, Solactive may make available a summary of the stakeholders' comments, that are not subject to confidentiality.

Taking into account the stakeholders' comments in the market consultation process, the Oversight Committee will take a final decision on the proposed Material Change. This decision is taken in accordance with the Terms of Reference of the Oversight Committee. Any such decision is duly documented and, in the case the change has been approved, announced (in accordance with the procedure described in <u>Announcement of the Change section below</u>). The change may be implemented as of the next Index rebalancing date. However, in urgent cases, immediate implementation may be necessary.

The relevant stakeholders will be informed of the change in writing in advance of the implementation, and the respective Index Methodology documents will be amended.

4.3.3 Announcement of the Change

The change will be documented and published on the Solactive website (in advance of implementation). The respective notification and announcement will specify the concrete details of the change (e.g., reason of the change and when the change is intended to apply). Solactive will announce the change in a timely manner and provide for an implementation period that provides sufficient time for potential adjustments users of the Index may need to make to account for the change.

The effective date for methodology changes is aligned, where feasible, with the periodic Index rebalance dates when the Index composition is changed, to avoid extraordinary impact for users of the Index.



Changes to the Index Methodology will generally be announced on the Solactive website www.solactive.com/news ten Index calculation days prior to implementation. The Oversight Committee may decide to shorten the notice period in the following situations:

- exceptional or urgent cases such as extreme or exceptional market conditions or analogous extraordinary situations;
- no stakeholder impact;
- it has been agreed that the notice period has to be shortened because the case requires immediate action, for example in a situation in which the Index user's ability to replicate the Index performance with his or her portfolio is no longer ensured; and
- to align with the periodic Index rebalance dates.

In such extraordinary cases, changes to the Index Methodology must be made at least on the same day the change is implemented.

The Index Management Team will ensure the public, via announcement on the Solactive website, and subscribers, via email or other communication channels, are provided with detailed information about the nature and rationale of the change as well as the implications and terms for the new Index Methodology to enter into force. Index Management Team is responsible for amending the Index Methodology documents to reflect the change and to update the change history.



5 DEFINITIONS

For the purpose of this document, the defined terms used herein shall have the following meanings:

'BMR' means Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on Indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014.

'Index' (or 'Indices') refers to an index as defined in Article 3(1)(1) of the BMR.

'Index Guideline Template' is defined in Section 4.1. (c).

'Index Methodology' is defined in Section 3.

'Input Data' means the data in respect of the value of one or more underlying assets, or prices, including estimated prices, quotes, committed quotes or other values, used by an administrator to determine an Index. FX rates are also considered Input Data, provided that such FX rates are used every time the level of an Index is determined.

'Index Management Team' means the team within Solactive that is responsible for the day-to-day maintenance of an Index, including determination and distribution of Index levels, as well as ordinary and extraordinary adjustments, for example, after the occurrence of corporate actions with regard to the constituents of an Index or in the course of the regular rebalancing of an Index.

'**Oversight Committee**' means a committee composed of staff from Solactive and its subsidiaries that is responsible for decisions regarding any amendments to the rules or any termination of the Index.

'**Product Development Team**' means the team within Solactive that is responsible for the development of the methodology for determining an Index.

'Solactive' means Solactive AG and its subsidiaries.



6 DOCUMENT HISTORY

| Version | Date | Description |
|---------|------------|--|
| 1.0 | 04.04.2019 | Document creation (initial version) |
| 1.1 | 15.01.2020 | Change Solactive office address; minor, non-material corrections |
| 1.2 | 27.10.2021 | Comprehensive revision of section 4.2 and 4.3 to enhance transparency of description of process for material changes; additional minor technical changes |



Contact

Solactive AG German Index Engineering

Platz der Einheit 1
60327 Frankfurt am Main

Tel.: +49 (0) 69 719 160 00
Fax: +49 (0) 69 719 160 25
Email: info@solactive.com
Website: www.solactive.com

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