BITA

Index Methodology Guidebook

BITA VistaShares Artificial Intelligence Supercycle Index

20th of November, 2024
Version #1.1

www.bita.io
info@bita.io

Table of Contents

Log of Amendments

1. **01.06.2024**   - v.1.0. First publication of methodology guide.
2. **20.11.2024**   - v.1.1. Adding details related to the Thematic Exposure Score definition, periodic revision and usage in ordinary and extraordinary reviews.

Introduction and Background

ABOUT THE INDEX

The **BITA VistaShares Artificial Intelligence Supercycle Index** is a rules-based composite index that tracks the market performance of companies, listed on recognized, global exchanges, that derive their revenues from producing high-performance semiconductors, and building and operating AI enabled application and datacenters. The index encompasses companies that contribute to the advancement of AI infrastructure, ensuring a comprehensive representation of the AI and data processing ecosystem. Index values are disseminated on an end-of-day basis.

ABOUT BITA

BITA is a Germany-based Fintech that provides enterprise-grade indexes, data and infrastructure to institutions operating in the passive and quantitative investment spaces. Thanks to its innovative index management infrastructure, designed to outperform other existing solutions in terms of flexibility and speed, BITA can provide independent, methodologically sound indexes that are both investable and replicable by customers and stakeholders. BITA's methodologies and processes are completely transparent and available publicly.

ABOUT THIS DOCUMENT

This document is published to serve as a guidebook of the methodologies adopted in the construction, calculation, and management of the index.

Any methodological changes or alterations to this document are performed by the BITA Index Management Board (BIMB) and authorized by the BITA Oversight Function, following the directives of both the "BITA Index Methodology Policy" and the Regulation (EU) 2016/2011 "Benchmark Regulation" (BMR). The index is owned, calculated, administered, and disseminated by BITA GmbH.

Index Characteristics and Specifications

1. GENERAL INFORMATION AND INDEX OBJECTIVES

The **BITA VistaShares Artificial Intelligence Supercycle Index** is a rules-based composite index that tracks the market performance of companies, listed on recognized, global exchanges, that derive their revenues from producing high-performance semiconductors, and building and operating AI enabled application and datacenters. The index encompasses companies that contribute to the advancement of AI infrastructure, ensuring a comprehensive representation of the AI and data processing ecosystem. Index values are disseminated on an end-of-day basis.

- **Inception Date:** 10.09.2024
- **Index value at inception:** 1,000
- **Return Calculation:** Gross Total Return
- **Weighting Mechanism:** Modified Free Float Market Capitalization
- **Rebalancing Frequency:** Semi-annually
- **Reconstitution:** Semi-annually
- **Number of Constituents:** Variable

The base currency of the index is USD. Index values may also be published in other currencies when applicable.

2. SHORT NAME AND IDENTIFIERS

The index is distributed under the following identifiers:

Name	Type	FIGI	Ticker
BITA VistaShares Artificial Intelligence Supercycle Index	Gross Total Return		BVSAIS

3. EU BENCHMARKS REGULATION CONSIDERATIONS AND STATEMENT

BITA GmbH is the benchmark "administrator" of the BITA VistaShares Artificial Intelligence Supercycle Index, the "Benchmark" or "Index"[1].

The Index is calculated based on readily available data and does not use any contributed input data (as defined in Article 3(1)(8) of the BMR). The Index is classified as a non-significant benchmark (as defined in Article 3(1)(27) of the BMR).

The Index does not pursue Environmental, Social, and Governance (ESG) objectives and does not take into account ESG factors. The Index is not classified as EU Climate Transition Benchmark (as defined

---

[1]The term administrator is used in this document in the same sense as it is defined in 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 (the "Benchmarks Regulation" or "BMR").

in Article 3(1) (23a) of the BMR) or EU Paris-aligned Benchmark (as defined in article 3(1) (23b) of the BMR).

For the complete Benchmark Statement on the Index, please refer to the "Index website page".

This Methodology guide should be read in conjunction with the Index's Benchmark Statement and other associated BITA Governance policies and methodology documents. These documents are highlighted whenever referenced in this Methodology guide. They are also available on BITA's website (https://bita.io/governance).

4. INPUT DATA

In line with the input data requirements under the Article 11 of the Regulation (EU) No 596/2014 (the "Benchmarks Regulation" or "BMR"), the Index does not use contributions of input data, which may be prone to contributor discretion. A contribution of input data is defined as such data not readily available to an administrator or to another person for the purposes of passing to an administrator that is required in connection with the determination of a benchmark and is provided for that purpose. See Article 3(1)(8) of the EU Regulation 2016/1011 of the European Parliament and of the Council of 8 June 2016.

At each calculation point, the index value is calculated based on the constituents' individual quotes on the respective regulated exchanges. The constituents' most recent prices are used. When the constituents are quoted in a different currency, quotes are translated using the most recent spot FX rates. The daily index closing value is calculated using the spot FX rates as of the 16.00 hrs London (UTC + 01:00) WM fixing quoted by Reuters. If no 16:00 London WM Fixing is available, an alternative 16:00 London spot rate will be used.

For more detailed information on specific guidelines regarding the types of Input data, the procedures for the control of input data and the exercise of expert judgement please refer to the "BITA Input Data Policy".

5. INDEX CALCULATION AND DISSEMINATION FREQUENCY

5.1. Calculation Methodology

The index is based on the Laspeyres formula, which links each successive weighted basket of securities in the index with the preceding basket. This translates into a unique index "Divisor" for each index, which is adjusted to maintain the continuity of the index's values across changes due to corporate actions.

5.2. Calculation Frequency

The official index closing level is calculated once a day, every Business Day (EoD calculation). Historical "EoD" index data is available as backtested data starting on the index backtesting date, and as calculated and maintained data starting on the index inception date.

5.3. Index Dissemination

Official index EOD levels are calculated and disseminated after the close of all exchanges on which the index constituents are listed (EoD calculation). A day is considered to be a Business Day if at least one of the exchanges considered in the Index is open for trading.

The index is distributed via BITA's direct dissemination channels and a variety of data vendors when applicable.

Index Methodology

1. UNIVERSE CONSTRUCTION

1.1. Initial Universe

This index provides a holistic view of the AI technology landscape, capturing the performance of key players driving advancements in artificial intelligence, data processing and AI-enabled applications. The index is modeled to provide an accurate representation on a pro-forma basis, of the Bill of Material required to produce high-performance semiconductors, build, and operate datacenters and develop and maintain AI-enabled applications ("AI Supercycle Bill of Materials"). Therefore, the initial universe is composed of globally listed equity securities, issued by companies with a significant involvement in products, services and activities classified in the following Segments of the AI Supercycle Bill of Materials:

A. **High-Performance Semiconductors Bill of Materials:**

   a. **Graphics Processing Unit (GPU):** Companies involved in the design and production of GPUs specifically optimized for AI processing, machine learning, and high-performance computing tasks. This includes research and development of advanced architectures, fabrication of semiconductor wafers, and assembly of GPU units. The focus is on increasing computational power, energy efficiency, and support for parallel processing required in AI applications.

   b. **Video Memory (VRAM):** Companies engaged in the development and manufacturing of high-capacity VRAM to support GPUs in handling large datasets and complex computations. This includes advancements in memory technology to enhance bandwidth, latency, and overall performance to meet the demands of AI and data-intensive applications.

   c. **Data Processing Unit (DPU):** Companies developing data processing units (DPUs) designed to offload and accelerate data-intensive tasks from the CPU, enhancing overall system efficiency and performance. This includes creating specialized processing units for tasks like network traffic management, security processing, and data storage management, freeing up CPU resources for primary computational tasks.

   d. **Cooling System:** Companies developing advanced cooling solutions to manage the heat generated by high-performance computing equipment. This includes the design of liquid cooling systems, high-efficiency air conditioning units, and innovative heat dissipation technologies that ensure reliability and efficiency in data center environments.

   e. **Voltage Regulator Module (VRM):** Companies focused on developing and distributing voltage regulator modules that provide stable and efficient power to semiconductor components, including GPUs. This ensures reliable performance of high-demand computing tasks, maintaining system stability and protecting sensitive components from power fluctuations.

f. **Motherboard Interface:** Companies creating specialized motherboards with high-speed interfaces to support fast data transfer and communication between components, including GPUs. This includes the development of advanced interface technologies like PCIe, NVMe, and custom interconnects designed for optimal performance in high-performance computing systems.

g. **Interconnection Interface:** Companies developing high-bandwidth interconnection standards and interfaces to facilitate fast and reliable communication between data center components, including GPUs. This includes technologies like InfiniBand, Ethernet, and proprietary interconnects that enhance overall system performance and scalability

h. **Network Interface & Controller:** Companies producing network interface cards (NICs) and controllers that enhance network performance and reliability, supporting data transmission for AI and data processing tasks handled by GPUs. These components ensure high-speed data transmission, low latency, and robust data handling capabilities essential for AI applications.

i. **Output Interfaces:** Companies creating interfaces for connecting high-resolution displays to data processing units, including GPUs. This includes developing technologies like HDMI, DisplayPort, and custom output interfaces that facilitate real-time data visualization and analysis for AI applications.

B. **Datacenters Bill of Materials:**

a. **Power and Cooling Systems:** Companies producing efficient power supply units, voltage regulator modules (VRMs), and advanced cooling systems specifically designed for data centers. This includes the design and implementation of liquid cooling, air cooling, and innovative heat dissipation technologies to maintain optimal operating temperatures and stable power delivery in data center environments.

b. **Servers and IT Equipment:** Companies involved in the design and production of specialized server boards, CPUs, and related IT equipment tailored for data center use. This includes the development of advanced board architectures, integration of high-speed interconnects, and ensuring compatibility with various data center standards to ensure reliable and efficient operation of servers and related hardware.

c. **Networking Equipment:** Companies focusing on the development of high-speed networking solutions, including switches, routers, and network interface cards (NICs) specifically designed for data center environments. These solutions ensure fast and reliable data transmission within data centers, supporting the high bandwidth and low latency requirements of AI and high-performance computing workloads.

d. **Storage Devices:** Companies developing high-performance storage devices such as SSDs and NVMe drives optimized for the fast read/write speeds required in data center applications. This includes advancements in storage technology to improve data access times, reliability, and storage capacity, meeting the demanding requirements of AI and data processing workloads.

e. **Backup and Disaster Recovery Solutions:** Companies developing and implementing data protection and disaster recovery systems tailored for data center environments. This includes creating robust data replication, backup software, and disaster recovery plans to ensure data integrity and availability in case of hardware failures or other emergencies, safeguarding critical data and applications.

f. **Racks and Cable Management:** Companies involved in the design and provision of server racks and cable management systems optimized for data center use. This includes developing solutions to organize and optimize the physical layout of data centers, ensuring efficient space utilization, ease of maintenance, and effective thermal management to support the reliable operation of IT infrastructure.

g. **Remote Hands Support:** Companies providing on-site technical assistance for hardware installation, maintenance, and troubleshooting in data center environments. These remote hands support services ensure smooth operation and quick resolution of any issues, minimizing downtime and maintaining data center uptime and performance.

h. **Software:** Companies developing software solutions that optimize the performance and management of data center hardware and infrastructure. This includes operating systems, virtualization software, network management tools, and applications designed to enhance resource allocation, energy efficiency, and system uptime in data center environments. These solutions also cover monitoring, automation, and security software that ensures the smooth operation of servers, storage, and networking equipment in large-scale, high-performance computing environments.

C. **AI-Enabled Applications:**

AI-enabled applications harness the power of artificial intelligence (AI) to deliver innovative solutions across various industries and domains. These applications leverage advanced machine learning algorithms, natural language processing, computer vision, and other AI techniques to automate tasks, gain insights from data, and enhance decision-making processes. From intelligent virtual assistants and personalized recommendation systems to predictive analytics and autonomous vehicles, AI-enabled applications are transforming how businesses operate and interact with their customers. Companies involved in the development and deployment of AI-enabled applications are driving innovation and unlocking new opportunities for efficiency, productivity, and growth in the digital age.

BITA approaches the construction and research of each Segment of the Bill of Materials through the mapping of products, services, and business activities ("PSA") into it. This design facilitates the construction of a heavily focused index and allows for the assessment of each company through a variety of lenses, capturing to the detail the different exposures that a company might have not only to revenue reporting lines, but also to technologies, consumer trends, business models, and other relevant perspectives.

In order to provide an objective measure of the level of exposure of a company to a particular Segment of the Bill of Materials and to individual PSAs, BITA utilizes an objective score, called the BITA Thematic Exposure Score.

Revenue-based Thematic Exposure Scores are determined through an in-depth analysis of a company's business footprint via the collection of publicly available data provided by the company in regulatory filings (such as Annual Reports, 10-Ks, 10-Qs, 20-Fs, 8-Ks), quarterly earnings reports, investor presentations, official earnings conference call transcripts, as well as credible news sources.

A company's total Thematic Exposure Score is equivalent to the sum of the revenue derived by the company from each relevant PSA, as a proportion of the company's total revenue.

1.2. Eligible Universe

The final eligible universe is constructed after the application of the following screens and filters:

A. **Security Types:** Ordinary shares and ADRs are admitted.

B. **Minimum Size:** Securities of companies with a market capitalization below USD 200 million are excluded.

C. **Minimum Liquidity:** Securities with a 3-month Average Daily Traded Value below USD 300,000 are excluded.

D. **Eligible Exchanges:** Only securities listed at one of the eligible exchanges included in Annex A are admitted. Securities trading on the Shanghai and Shenzhen stock exchanges must be available for dealing through the Hong Kong Stock Connect program.

E. **Free Float Percentage:** Securities with a free float percentage relative to the total shares outstanding below 10% are excluded.

2. INDEX CONSTITUENT SELECTION

2.1. Index Ranking

All securities that match the criteria to be part of the eligible universe are selected as constituents.

2.2 Security Considerations

If a company has more than one share class that qualifies for membership on a stand-alone basis in the index, only the highest ranked share class will be considered for composition, as ranked by its 3-month ADTV.

3. INDEX WEIGHTING

The **BITA VistaShares Artificial Intelligence Supercycle Index** employs a proprietary tiered weighting methodology based on a forward-looking AI Supercycle Bill of Materials. This list encompasses the relevant products, services, and activities essential for the development and deployment of AI-enabled applications, as well as the production of high-performance semiconductors and the infrastructure of datacenters.

3.1. Bucket Weights: Each Segment within the Bill of Materials is assigned a weight, referred to as a Bucket Weight, corresponding to its contribution to the overall ecosystem of the AI Supercycle. These weights are reviewed periodically as part of the regular index review cycle to ensure accuracy and relevance in capturing the evolving landscape of AI technologies, high-performance semiconductor production, and datacenter infrastructure.

3.2 Intra-Bucket Weights: Each index constituent is assigned into the specific bucket that represents the highest proportion of its thematic revenue. In cases where a constituent's thematic revenue is shared between multiple buckets, only the thematic revenue relevant to the assigned bucket is considered. These weights are referred to as Intra-Bucket Weights.

On each Determination Day Intra-Bucket Weights are calculated based on the constituents' market share. A constituent's market share is defined as the ratio of its thematic revenue associated with the bucket to the sum of all bucket constituents' thematic revenue associated with that bucket.

$$Intra-Bucket\ Weight_i\ = \frac{Thematic\ Revenue\ in\ Bucket\ N_i}{\sum_{i=1}^{n} Thematic\ Revenue\ in\ Bucket\ N_i}$$

3.3 Constituent Weights in the Index: The final weight of each index constituent is determined as the product of its Bucket Weight and Intra-Bucket Weight.
If a bucket is empty, its weight is distributed proportionally across the index.

4. INDEX CAPPING

4.1. Individual Security Capping

To ensure balanced representation and avoid undue concentration, the initial weights of all index constituents are subject to the following capping constraints:

- The weight of any issuer cannot fall below 0.2% of the total index weight.
- The weight of any issuer cannot exceed 4.5% of the total index weight.

During the calculation, weights are first adjusted to meet the minimum weight floor. If any security's weight falls below 0.2%, it is increased to the minimum. After applying the floor, the weights are then capped. Any excess weight from capped constituents is redistributed proportionally among the remaining uncapped constituents within the same index bucket. If all constituents in a bucket are already capped, any remaining weight is distributed proportionally to the constituents from other buckets.

5. INDEX REVIEW SCHEDULE

5.1. Ordinary Adjustments

The Index is reconstituted and rebalanced semi-annually in June and December at the Close of Business (COB) on the 3rd Friday of the rebalancing / reconstitution month after market close.

The Determination Date for ordinary adjustments occurs at the COB on the 1st Friday of the rebalancing / reconstitution month.

BITA provides constituent pro-forma files each time the Index rebalances. Pro-forma files are normally released daily, covering the period between the Determination and Effective dates (proforma period).

Deletion Replacement rules: None.

5.2. Extraordinary Adjustments

Adjustments due to Thematic Exposure Score Reviews: Any downward adjustment of more than 50% of a constituent's BITA Thematic Exposure Score will trigger an extraordinary constituent deletion, with an associated divisor adjustment.

BIMB may also decide to substitute an index constituent or perform an extraordinary adjustment to the index upon the occurrence of an extraordinary event as deemed by BIMB or according to the "BITA Corporate Actions Treatment Guide".

In such cases, BITA will announce the index adjustment with a notice period of at least 2 trading days (with respect to the affected constituent) on BITA's website and proceed to its implementation after the close of business on the effective date as specified in the aforementioned announcement.

Index Calculation

1. INDEX FORMULA

The index value is calculated every 1 second with the updated price from its constituents using the following formula:

$$Index\ Value_t = \sum_i \frac{P_{i,t} * IWF_{i,t} * TOS_{i,t} * AWF_{i,t} * F_{i,t}}{D_t}$$

Where:
$P_{i,t}$ = Price of the constituent 'i' at time t
$IWF_{i,t}$ = Investable Weighting Factor of constituent "i" at time "t"
$TOS_{i,t}$ = Total no. of Shares Outstanding of constituent "i" at time "t"
$AWF_{i,t}$ = Adjustable Weighting Factor for constituent "i" at time "t"
$F_{i,t}$ = Foreign exchange Rate for constituent "i" at time "t"
D_t = Divisor Value at time "t"

The initial divisor (at inception **$t = t_0$**) value is calculated according to the following formula:

$$D_{t0} = \frac{\sum_i \left(P_{i,t0} * IWF_{i,t0} * TOS_{i,t0} * AWF_{i,t} * F_{i,t0} \right)}{Initial\ Index\ Value}$$

On each Adjustment Day t, the divisor is adjusted to keep the index value constant. The new divisor is calculated as:

$$D_{t+1} = D_t + \frac{Change\ in\ Market\ Cap\ of\ the\ Index}{Index\ Value_t}$$

The new divisor is then used in the calculation of the following day's index open.

2. COMPUTATIONAL ACCURACY

The index will be calculated to 13 decimal figures.

Index values will be rounded to 2 decimal places for dissemination.

3. INDEX DIVISOR ADJUSTMENTS

The market capitalization of the index is affected by numerous events other than daily security price changes. At the company level, market capitalizations are affected by share changes caused by corporate actions such as takeovers, acquisitions and spin-offs. Changes also result from company additions and deletions to the index.

In order to insulate the members of the index from the effects of index constituent changes and corporate actions, the index's market capitalization is divided by an adjustment factor called the index divisor. During the trading day, the index is computed by dividing the index's current market capitalization by the divisor value. If there are no corporate actions or constituent changes, the divisor remains unchanged for the next trading day. If there is an event resulting in a capitalization change, the index's new adjusted base market cap is calculated after the close using the adjusted prices and adjusted share figures. Then, a new divisor is calculated for use at the opening on the next trading day. The new divisor links the closing index value to the new adjusted base market capitalization of the index.

4. DIVIDENDS AND OTHER DISTRIBUTIONS

For the purposes of the index adjustment, BITA distinguishes between Cash dividends and Special dividends. Cash dividends are treated differently depending on the type of Index.

In a Price Return Index, regular Cash dividends are neglected and only the Special dividends are considered.

In a Gross Total Return Index, reinvestments of Cash and Special dividend distributions are considered without performing deductions due to withholding taxes.

In a Net Total Return Index, reinvestments of Cash and Special dividend distributions are considered after deducting the withholding tax.

Dividend payments and other distributions will lead to a change in the value of the divisor. The new Divisor is calculated as follows:

$$D_{t+1} = \frac{Index\ Market\ Cap\ Open_{t+1}}{Index\ Value\ at\ Close_t}$$

For detailed information on dividends treatment, please refer to the "BITA's Corporate Action Treatment Guide".

5. CORPORATE ACTIONS AND OTHER ADJUSTMENTS

All corporate actions and events will be monitored and processed as per the rules and methodologies explicit in "BITA's Corporate Action Treatment Guide".

Shares outstanding for constituents change regularly due to a variety of events and corporate actions. Share changes of less than 10% are implemented at the Ordinary Index Reviews.

If the number of outstanding shares for an index constituent change by more than 10% due to a corporate action, such as those listed in BITA's Corporate Actions Treatment Guide, the company's share outstanding will be updated after the close of trading on the day prior to the ex-date of the corporate action.

In case of constituents from different countries and/or regions, it is possible that a business day in one country would be a public holiday in the other. In all such cases, the business day is considered valid and the index is calculated and disseminated just like in the normal index days. For the constituents that have a public holiday (i.e. no price movement) on index business day, the real-time forex rate is the only

factor contributing to changes in the value of such constituents. In case that the public holiday is in the base currency of the index, then the constituent's prices are kept constant throughout the day.

6. CORRECTION AND RECALCULATION

To ensure accuracy, timeliness and consistency of indexes that accurately reflect economic realities, BITA has implemented an Index Correction and Recalculation Policy. Our policy has been drafted in accordance with the IOSCO Principles and the EU Benchmark Regulation directives.

As per our Index Correction and Recalculation Policy, processes are in place to reduce error likelihood, ensure timeliness of identification, avoid subjectivity of corrective decisions and mitigate impact to clients.

While every effort is taken to ensure the accuracy of the index inputs, information and calculation, there is no guarantee that the index will be error-proof. Errors may occur due to data input errors, technology errors, application errors or other reasons.

Any Correction or Restatement made to an Index will be normally communicated to clients via email channels. The communication is done in a standardized format including an explanation of the error, the proposed rectification, and the effective date of implementation. BITA's customer service and product development teams stand always available for any additional clarification if necessary. Upon request, error reports are made available to clients.

For detailed information on specific errors, implementation timing and correction processes, please refer to the "BITA Correction and Recalculation Policy".

7. MARKET DISRUPTION

In periods of market stress, that might result in inaccurate market prices, delayed data inputs, illiquid constituents or fragmented markets, BITA calculates the Index following predetermined procedures as set out in its ""BITA Index Termination and Business Continuity Policy", available at BITA's website.

Index Governance and Miscellaneous

1. METHODOLOGY ADJUSTMENTS AND REVIEWS

The Index Methodology is reviewed on an annual basis by both the BITA Index Management Board and the BITA Oversight Committee, to make sure the Index continues to reflect the economic realities of the market and is not based on obsolete inputs or assumptions.

In case an adjustment to the Methodology is required, a detailed written "BITA Index Methodology Policy" outlines the steps and approvals required to develop, document and approve the Index and its Methodology. The purpose of the BITA Index Methodology Policy is to ensure that the methodology of the Index meets the requirements of Article 12 of the BMR and is implemented according to a robust and reliable process.

2. INDEX TERMINATION

When designing an index, BITA puts significant efforts in ensuring that its indexes are sustainable and can stay relevant over time. However, there might be situations (cases where an index ceases to reflect the economic reality of the market it represents, needs data that can no longer be obtained, or fails to keep achieving its objectives) where a cessation of the index may be indicated. For such cases, BITA has developed and adopted an "Index Termination Business Continuity Policy", that includes the specific processes to identify such events, communicate and consult stakeholders, and setup potential transition plans to reduce the impact for customers and stakeholders.

3. INDEX GOVERNANCE BODIES

3.1. BITA Oversight Function

The BITA Oversight Function is responsible for the oversight of all aspects related to the provision of benchmarks administered by BITA. The Oversight Function will receive updates from first-line internal governance bodies where appropriate.

3.2. BITA Index Management Board (BIMB)

The BITA Index Management Board (BIMB) is responsible for decisions regarding the index composition as well as any changes to the rulebooks and methodology guides. The board also decides about the future composition of the index if any "Extraordinary Event" occurs and requires necessary adjustments.

4. ESG FACTORS DISCLOSURE

Explanation of how ESG Factors are reflected in the key elements of the benchmark methodology

Name of the benchmark administrator.	BITA GmbH
Type of benchmark or family of benchmarks. Choose the relevant underlying asset from the list provided in Annex II to Commission Delegated Regulation (EU) 2020/1816.	Equity
Name of the benchmark or family of benchmarks.	BITA VistaShares Artificial Intelligence Supercycle Index
Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No

Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.

(a) List of environmental factors considered:	By Exclusion: None By Selection: None By Weighting: None
(b) List of social factors considered:	By Exclusion: None By Selection: None By Weighting: None
(c) List of governance factors considered:	By Exclusion: None By Selection: None By Weighting: None

Data and standards used:

(a) Data input. (i) Describe whether the data are reported, modelled, or sourced internally or externally. (ii) Where the data are reported, modelled, or sourced externally, please name the third-party data provider.	Not Applicable.
(b) Verification and quality of data. (i) Describe how data are verified and how the quality of those data is ensured.	When external ESG and Impact Data vendors are used, a verification process is conducted to ensure that the provider has implemented processes and procedures that: i) are in line with established market

	standards and, ii) ensure the representativeness and reliability of the submitted data. When necessary, additional checks for abrupt changes or inconsistent data points are conducted, and when applicable, a further request for clarification is submitted to the vendor.
c) Reference standards. (i) Describe the international standards used in the benchmark methodology.	The index methodology is constructed in line with the IOSCO standards for financial benchmarking, as well as market standards required by the Regulation (EU) 2016/2011 "Benchmark Regulation" (BMR).
Information updated on:	01/06/2024
Reason for update:	Initial document creation.

5. TERMINOLOGY

Adjustable Weighting Factor (AWF) is the adjustment factor introduced in the index calculation formula so that the index constituent weight capping factor is satisfied. No AWF changes occur due to corporate actions between rebalancing.

The AWF for each constituent on the determination date is calculated as:

$$AWF = \frac{CW}{W}$$

Where CW is the Capped Weight of that index constituent calculated on the determination date, and W is the uncapped weight (based on the free-float market capitalization) of that index constituent calculated on the determination date.

Adjustment Day is the day in which adjustments to the index divisor are performed. This could be days where reconstitution and rebalancing happen, or alternatively days before the ex-date of a corporate action.

Average Daily Traded Value of a stock is the sum of the Daily Traded Value over a specified period divided by the number of trading days over that specified period.

BITA Assigned Country is a composite country flag, determined by BITA, based on publicly available information regarding the companies' country of incorporation, country of headquarters and country of primary operations.

BITA Thematic Exposure Score: BITA determines revenue-based Thematic Exposure Scores through an in-depth analysis of a company's business footprint via the collection of publicly available data provided by the company in regulatory filings (such as Annual Reports, 10-Ks, 10-Qs, 20-Fs, 8-Ks), quarterly earnings reports, investor presentations, official earnings conference call transcripts, as well as credible news sources.

Benchmark Regulation (BMR): Regulatory regime for benchmark administrators that ensures the accuracy and integrity of benchmarks. Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 governing 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.

Business Day is a day on which an exchange is open for the buying and selling of securities, generally occurring on weekdays between normal business hours.

Capping Factor is the factor that limits the weight of any index constituent to a maximum pre-defined limit.

Coordinated Universal Time (UTC) is the primary time standard by which the world regulates clocks and time.

Daily Traded Value of a stock is the product of the closing price of that stock and the number of shares traded on the exchange on that business day.

Determination Date is the date (at end of day) used as a reference for the determination of index constituents, as well as index shares and parameters, which are to be applied at rebalancing/reconstitution.

End of Day (EoD) Index Values are the official index close levels calculated and stored, using official exchange close prices, at the end of each business day.

ET time: Eastern Time is five hours behind the Coordinated Universal Time standard, written as an offset of UTC - 5:00. That means to find the standard time in the zone one must subtract five hours from Coordinated Universal Time. During the daylight-saving adjustment period (March-October), the difference is four hours.

CET time: Central European Time is one hour ahead of the Coordinated Universal Time standard, written as an offset of UTC + 1:00. That means to find the standard time in the zone one must add one hour to Coordinated Universal Time. During the daylight-saving adjustment period (March-October), the difference is two hours.

Extraordinary events are extreme market events that make index adjustments necessary. These events include:

- Merger
- Takeover bid
- Delisting
- Insolvency

For an exhaustive list, please refer to BITA Equity Corporate Actions Treatment Guide.

Gross Total Return Index is obtained by reinvesting in the ordinary gross dividends declared by the index constituents, and assumes that any cash distributions, such as dividends, are reinvested assuming zero tax rate applicability on such cash distributions.

Net Total Return Indexes is obtained by reinvesting in the index the ordinary net dividends (i.e less withholding taxes) declared by the index constituents, and assumes that any cash distributions, such as dividends, are reinvested with the corresponding tax rate applied on such cash distributions.

Price Return Indexes is obtained by tracking the plain prices of the index constituent instruments, unadjusted with the respect to any possible dividends or other cash payouts from the instruments.

Inception Date refers to the official start date of the index, with the index base value as close value.

Investable Weighting Factor (IWF) is the percentage of shares outstanding that are included in the index calculation. In the case of Float-Adjusted Market Cap Weighted Indexes, the total shares outstanding are adjusted so that they exclude from the index calculation all shares not freely available to investors.

BITA uses fundamental data from a variety of recognized data vendors to calculate the IWF for each of its index constituents.

The **IWF** is calculated as:

$$IWF = \frac{TOS - SCH}{TOS}$$

Where **TOS** is the total number of shares outstanding, **SCH** is the number of shares restricted to investors.

Free float factors are reviewed on a regular basis in line with the rebalancing/reconstitution schedule using the most recent available data.

Changes to the number of shares due to stock dividends, splits, rights issues etc. are implemented immediately and effective the next trading day.

In case of other corporate actions and events, if there is a change of more than 10% in the SOC, BITA will announce the update in SOC immediately and the adjustment comes into effect two trading days after the announcement. All other applicable changes are announced on the next underlying data announcement date, implemented on the index review date and effective the next trading day after implementation.

Market Capitalization is calculated as the product of the number of shares outstanding of the share class and the share price.

The index **Divisor** is an arbitrary number that is first defined when an index is first published. Its initial use is to divide the total value of the index to produce an index value that is easy to handle. Subsequently, the index divisor remains constant and requires adjustments, either when rebalancing and reconstituting or through corporate action treatments.

Pro-forma Files distributed to Index subscribers during the Pro-forma Period (i.e. the period between the determination date and the effective date of the upcoming rebalancing/reconstitution) contain the preliminary index weights, index shares and other relevant parameters for the upcoming rebalancing/reconstitution. While the index shares remain constant (unless affected by corporate actions) during the Pro-forma Period, the index weights will move along with the market.

Total Number of Shares Outstanding (TOS) of an index constituent on any given business day refers to a company's stock currently held by all its shareholders, including share blocks held by institutional investors and restricted shares owned by the company's officers and insiders.

6. DISCLAIMER

All information is provided for information purposes only. All information and data contained in this publication are obtained by BITA from sources believed by it to be accurate and reliable. Because of the possibility of human and mechanical error as well as other factors such information and data are provided "as is" without warranty of any kind.
BITA does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the Index nor the level of the Index at any certain point in time. Customers should consider obtaining independent advice before making any financial decision.

The publication of the Index by BITA does not constitute a recommendation for capital investment and does not contain any assurance or opinion of BITA regarding a possible investment in a financial instrument based on this Index.

No member of BITA nor their respective directors, officers, employees, partners, or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the accuracy, timeliness, completeness, merchantability of any information or results to be obtained from the use of the BITA Indexes or the fitness or suitability of the BITA Indexes.

No member of BITA nor their respective directors, officers, employees, partners, or licensors provide investment advice, and nothing contained in this document should be taken as constituting financial or investment advice or a financial promotion.

No member of BITA assumes any liability of any nature (including, but not limited to negligence) for any loss, damages, costs, claims and expenses related to or arising out of the use of the Indexes, or any data included therein.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means.

Annex

A. LIST OF ACCEPTED EXCHANGES

Australian Stock Exchange	XASX
Bolsas y Mercados Espanoles	BMEX
Borsa Italiana	XMIL
Deutsche Börse	XETR
Euronext Amsterdam Stock Exchange	XAMS
Euronext Brussels	XBRU
Euronext Irish Stock Exchange	XDUB
Euronext Lisbon	XLIS
Euronext Oslo Børs	XOSL
Euronext Paris Exchange	XPAR
Hong Kong Stock Exchange	XHKG
Korea Exchange	XKRX
London Stock Exchange	XLON
Nasdaq Copenhagen	XCSE
Nasdaq Helsinki	XHEL
Nasdaq Stock Exchange	XNAS
Nasdaq Stockholm	XSTO
New York Stock Exchange	XNYS
NYSE American	XASE
NYSE Arca	ARCX
Shanghai Stock Exchange	XSHG
Shenzhen Stock Exchange	XSHE
Singapore Exchange	XSES
SIX Swiss Exchange	XSWX
Taipei Exchange	ROCO
Taiwan Stock Exchange	XTAI
Tel-Aviv Stock Exchange	XTAE
Tokyo Stock Exchange	XJPX
Toronto Stock Exchange	XTSE
TSX Venture Exchange	XTSX

For information regarding the index methodology or concepts:

BITA GmbH
Mainzer Landstraße 51, 60329
Frankfurt am Main
www.bita.io
Info@bita.io