

# Akros Thematic Index Methodology

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**Akros Technologies, Inc.**

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# 1 Introduction

Akros Technologies (“Akros”) is dedicated to maintaining the highest standards of integrity through a transparent and replicable index design and calculation methodology. Driven by deep expertise in indexing, portfolio analytics, and data management, Akros seeks to bring an innovative and insightful perspective to the financial market. This dedication is reflected in the meticulous processes and standards that Akros adheres to in the creation and management of its indices.

**The Akros Thematic Index** represents a category within the broader landscape of the Akros Equity Index, designed to capture the performance of companies that align with specific themes. Venturing beyond the scope of traditional thematic index that categorizes companies based on traditional industry sectors, the Akros Thematic Index focuses on traditional as well as novel sectors of thematic investing. The approach targets companies that are poised to benefit from particular trends or innovations, offering investors a unique avenue to gain exposure to sectors that are expected to drive future growth. To accurately identify a company’s relevance to a specific theme, the Akros Thematic Index leverages the NEXUS engine powered by large language models (“LLMs”) and other advanced analytics to ensure that the index remains dynamic and responsive to emerging trends, providing a robust tool for investors seeking targeted thematic exposure in their investment strategies.

**Individual Index Methodology** documents outline the specific details of each index, encompassing an introduction and the objectives of the index, the construction criteria for its constituents, the frequency of rebalancing, and additional relevant information. These documents are critical to maintaining the highest standards of integrity and precision in index management. The Individual Index Methodology documents often refer to the Akros Thematic Index Methodology, which serves as a comprehensive and holistic guideline for the development and maintenance of thematic indices.

# 2 Adherence to the IOSCO Principles

Akros Technologies remains steadfast in its mission to uphold the highest standards of integrity and professionalism. This commitment is reflected in every aspect of its operations, from the development and calculation of indices to their ongoing management and administration.

Akros adheres to the IOSCO Principles regarding the quality and integrity of indices and their methodologies by providing all relevant stakeholders with detailed information regarding the calculation and maintenance of the indices that Akros provides. This commitment to transparency is a cornerstone of Akros’s approach, ensuring that each index is managed according to the highest standards. Stakeholders have access to comprehensive details about index components, their selection criteria, and the overall methodology used in index calculation and maintenance. This level of professional detail ensures that users clearly understand how indices are constructed and maintained, fostering trust and confidence in the indices provided by Akros.

In light of the EU Benchmarks Regulation (Regulation (EU) 2016/1011), the Akros Thematic Index Methodology provides a comprehensive framework that aligns with all relevant regulatory standards. The regulation sets out stringent requirements for benchmark administrators, emphasizing the need for accuracy, reliability, and transparency.

By transparently disclosing index maintenance rules and general calculation methods, the Akros Thematic Index Methodology enables investors to effectively evaluate and utilize the indices developed by Akros. Detailed documentation and regular updates regarding the index methodologies ensure that users remain well-informed about any changes to index calculations. This transparency allows stakeholders to make informed decisions based on accurate and up-to-date information, enhancing their ability to use Akros indices for various investment and analytical purposes. Akros’s commitment to clear and comprehensive communication ensures that all relevant parties fully understand and benefit from its index products.

For further information, please refer to the Akros’s Statement of Adherence to IOSCO Principles.

### 3 NEXUS™: Connecting Data Into Action-Ready Intelligence

NEXUS™ is Akros’ proprietary Large Language Model (LLM) powered relevance framework. It *connects* the vast universe of sparse, unstructured, and structured data – company filings, earnings call transcripts, news, and alternative data – and distils them into a single, comparable metric that can be acted upon immediately.

Traditional fundamental or industry-classification approaches struggle to keep pace with the exponential growth of information. NEXUS leverages state-of-the-art language models, retrieval-augmented generation, and knowledge-graph enrichment to read, understand, and contextualise every piece of information that matters. Each company–keyword pair is scored on an absolute basis, while every pairwise company comparison is evaluated on a relative basis. The two complementary views form the foundation of the *NEXUS Absolute Score* and *NEXUS Relative Score*.

The name “NEXUS” encapsulates the idea of a central connection point: it is where disparate data sources meet, are processed, and emerge as decision-ready intelligence. The trademark underscores Akros’ commitment to continual research and enhancement of the underlying models, prompt engineering, and quality-control pipelines.

#### Why Not Rely on Simple Keyword Counts?

Traditional keyword–frequency screens suffer from two structural weaknesses:

1. **Quantity  $\neq$  quality.** A filing that references buying “GPU” hardware 100 times may score higher than NVIDIA’s own filing, even though the latter reflects core IP ownership and product revenue.
2. **Single-factor bias.** Real-world stock selection is multi-dimensional—portfolio managers prioritise value-chain position, intellectual property, pricing power, and more. A one-word metric cannot encode that hierarchy.

Approach	Example Assessment	Resulting Insight
<i>Keyword count</i>	Company B: 100 occurrences of “GPU” NVIDIA: 30 occurrences	Ranks Company B ahead of NVIDIA—despite Company B merely <i>purchasing</i> GPUs, not creating them.
<i>NEXUS hierarchy</i>	Rule of thumb provided by manager: <i>GPU design &gt; GPU components &gt; GPU foundry &gt; GPU-focused cloud provider</i>	LLM analyses context; applies hierarchy; NVIDIA is classified as highest-exposure designer, Company B scores lower—aligning with investment intuition.

Table 1: Keyword counting versus NEXUS multi-criteria evaluation

Under the hood, **NEXUS** blends large-language-model comprehension with a modular rule engine. The rule layer is *client-definable*: clients can supply bespoke hierarchies, score weights, or exclusion lists, and NEXUS will instantly translate those instructions into production-grade, action-ready intelligence. This flexibility enables highly customised index solutions—turning a client’s unique investment philosophy into an automated, transparent, and repeatable methodology.

## 4 Index Construction

### 4.1 Initial Investable Universe Construction

Please refer to Section 3 Index Construction of the Akros Equity Index Methodology for the detailed processes involved with the Initial Investable Universe Construction including but not limited to the following:

- Section 3.1.1 Eligible Investable Universe Construction
- Section 3.1.2 Tradable Equity Screening
- Section 3.1.3 Geographical Region Selection

#### 4.1.4 Industry Classification Selection

With reference to Section 3.1.4 of the Akros Equity Index Methodology, the Akros Industry Classification System (the "AICS") classifies listed equities of eligible exchanges outlined in Appendix A to a set of industry hierarchy based on the North American Industry Classification System. Appendix B contains a detailed information about the processes involved with assigning each equity to a industry label leveraging the publicly disclosed information and the power of modern technology.

In the context of the Akros Thematic Index, AICS serves as an invaluable tool in the process of assessing the relevance of companies to a specific themes. For conventional thematic indices, AICS proves effective due to its intricate 6-digit coding structure, which is hierarchically divided into five distinct classification levels. The detailed organization of Table 1 allows for a high degree of specificity, enabling precise identification of companies within traditional industries. The AICS' provision of primary and secondary industry labels acknowledges that a single company can operate multiple business lines, ensuring a more precise representation of multifaceted nature of companies in the modern society.

Sector	Name	Sub-sectors	Industry Group	NAICS Industries	6-digit U.S	5-digit
11	Agriculture, Forestry, Fishing and Hunting	5	19	42	32	32
21	Mining, Quarrying, and Oil and Gas Extraction	3	5	11	14	7
22	Utilities	1	3	6	10	4
23	Construction	3	10	28	4	27
31-33	Manufacturing	21	86	176	249	97
42	Wholesale Trade	3	19	69	0	69
44-45	Retail Trade	9	24	48	16	41
48-49	Transportation and Warehousing	11	29	42	25	32
51	Information	6	11	24	10	19
52	Finance and Insurance	5	11	27	13	220
53	Real Estate and Rental and Leasing	3	8	17	11	13
54	Professional, Scientific, and Technical Services	1	9	35	20	29
55	Management of Companies and Enterprises	1	1	1	3	0
56	Administrative and Support and Waste Management and Remediation Services	2	11	29	25	19
61	Educational Services	1	7	12	7	10
62	Health Care and Social Assistance	4	18	30	16	23
71	Arts, Entertainment, and Recreation	3	9	23	3	22
72	Accommodation and Food Services	2	6	10	8	7
81	Other Services (except Public Administration)	4	14	30	24	20
92	Public Administration	8	8	29	0	29
	<b>Total</b>	<b>96</b>	<b>308</b>	<b>689</b>	<b>490</b>	<b>522</b>

Table 2: Number of Industry Classification Labels

Furthermore, when applied to novel thematic indices that look to assess the relevance of companies to trending themes that are not captured by the traditional industry labels, the classification system serves to effectively narrow down the investable universe, facilitating a targeted and efficient selection of companies that align with the thematic focus of the index. The utility of the AICS underscores the system's comprehensive and versatile nature, making it an essential tool in thematic index creation and management.

The Akros Index Committee selects the relevant industry classifications based on their relevance to the specific theme of the individual thematic index. The Akros Index Committee reserves the right to review and adjust the industry classifications for the construction of the initial universe of the individual index subject to the approval of the committee members.

## 4.2 Index Constituent Selection

### 4.2.1 Keyword and Criteria Definition

The starting point for every Akros Thematic Index is the definition of the *semantic building blocks*—the **keywords** that capture the essence of the theme *and* the **evaluation criteria** that determine how those keywords are interpreted along the value-chain.

Keywords are identified through a structured review of industry white papers, academic journals, and other authoritative sources to ensure topical relevance. Once the vocabulary is confirmed, subject-matter experts specify a set of hierarchical rules—for example, “*GPU design > GPU component manufacturing > GPU foundry services > GPU-focused cloud provider*”. These rules, together with optional weightings or exclusions, become the configurable input that guides NEXUS’ multi-criteria scoring.

Embedding both the keywords *and* the decision logic at this stage allows the framework to reflect nuanced investment viewpoints and supports a high degree of client customisation.

To maintain transparency and accountability, the references used for keyword selection are thoroughly documented in the Individual Index Methodology. This documentation not only supports the rationale behind the chosen keywords but also allows stakeholders to understand the thematic focus of the selected index. By outlining the references, the methodology provides a clear evidence to maintain the integrity of the process involved with the formulation of the index.

It is the role of the Akros Index Committee to ensure that as industries evolve and new trends emerge, the relevance of the keywords is maintained. To address such change in the industry, the keywords can be revised to reflect industry growth and shifts. The revisions undergo a systematic review and revision of the committee members and the decision to substitute the keywords requires the approval of the Akros Index Committee. The committee is comprised of external experts including professors and lawyers, and relevant stakeholders to ensure that any changes to the keywords are justified and aligned with the thematic focus of the index. This approval process maintains the rigor and consistency of the thematic index, allowing it to adapt to changes while preserving its foundational principles.

### 4.2.2 Data Collection

Data collection is a critical step in the process of building a robust and reliable thematic index gathering necessary information to evaluate the relevance of each company to a particular theme. Initially, data are gathered for all companies within the investable universe. This comprehensive approach ensures that no potential candidate is overlooked and provides a solid foundation for subsequent analysis.

The sources of data are meticulously selected and are drawn from documents available and disclosed in public, company filings, transcripts, and reputable news sources. Publicly disclosed documents are usually authorized and standardized information with credibility, while company filings and transcripts offer detailed insights into a company’s operations, financial health, and strategic direction. News data help capture the latest developments and market sentiments, providing a dynamic view of each company. By leveraging these diverse and credible sources, the data collection process benefits from a rich information base.

Pre-processing data involves filtering out any unnecessary, misleading, and inaccurate information. The procedure is important and ensures the integrity of the data used in the index, and accuracy of the evaluating the relevance score. Unnecessary data that do not contribute to the thematic focus are removed to streamline the analysis and misleading information, which can distort the true picture of a company’s relevance to the theme, is carefully excluded. Any further inaccuracies in the data are corrected to maintain the precision. This rigorous pre-processing phase ensures that only high-quality data are utilizing in analyzing each company.

In situations where the most frequent data, such as quarterly data, is unavailable, the data infrastructure gathers the next most frequent data, such as the annual data. This flexibility ensures that the index can still be constructed and updated even when certain data points are missing. By using the next available frequency of data, the process maintains continuity and remains up to date with most recent information.

Overall, the data collection process for the Akros Thematic Index is a comprehensive and meticulous procedure designed to ensure the highest quality of information. By including all companies in the initial

universe, sourcing data from credible documents, pre-processing to filter out inaccuracies, and adapting to data availability, the process lays a strong foundation for constructing a reliable and relevant thematic index. The rigorous approach ultimately supports the creation of an index that accurately reflects the thematic focus with valuable insights.



### 4.2.3 NEXUS Absolute Score

For companies in the initial investable universe, the NEXUS absolute score for each keyword is evaluated through LLM based on the collected data including but not limited to publicly disclosed documents, company filings, transcripts, and reputable news sources. The measurement process involves assessing the thematic relevance score for each keyword through an absolute evaluation method. This approach means that the LLM assigns a score to each company based purely on the information provided, without comparing its relevance to that of other companies.

The LLM  $L_A$  analyzes the single company information  $CI_i$  to determine how closely each company's operations and focus aligns with the keyword  $K$ . The score reflects an intrinsic measure of relevance, indicating how well the company's activities correspond to the specific themes represented by the keywords. This method ensures that the evaluation is grounded solely in the context of the provided information, offering an assessment of thematic relevance on absolute grounds and the reason behind its assessment.

Depending on the requirements of a particular thematic index, Akros implements one of two discrete scales for the **NEXUS absolute score**:

- **Five-level scale:**  $\{0.0, 0.25, 0.5, 0.75, 1.0\}$
- **Three-level scale:**  $\{0.0, 0.5, 1.0\}$

Both scales employ the same underlying evaluation logic. Indices that adopt the three-level scale simply omit the *low* (0.25) and *high* (0.75) intermediate buckets shown in Equation 1. The chosen scale for each index is specified in the corresponding Individual Index Methodology.

$$L_A(K, CI_i) = \begin{cases} 1.0, & \text{Absolute thematic relevance between company information and keyword is } \textit{very high} \\ 0.75, & \text{Absolute thematic relevance between company information and keyword is } \textit{high} \\ 0.5, & \text{Absolute thematic relevance between company information and keyword is } \textit{moderate} \\ 0.25, & \text{Absolute thematic relevance between company information and keyword is } \textit{low} \\ 0.0, & \text{Absolute thematic relevance between company information and keyword is } \textit{very low} \end{cases} \quad (1)$$

Equation 1: NEXUS Absolute Score

Appendix C shows a simplified procedure associated with the evaluation of absolute thematic relevance score by using company information. Referring to Equation 1 and Appendix C, the LLM utilizes the company information to output a score on the scale between 0.0 and 1.0, with the reason as to why the score has been assigned. The NEXUS absolute score is therefore a systematic process that generates a quantitative score, and at the same time a transparent procedure with clear explanation behind scoring.

### 4.2.4 NEXUS Relative Score

NEXUS relative score assesses how the operations of each company compares to those of others in its relevance to the keyword and the related industry, thereby providing a relative measure of thematic relevance. As an alternative approach to the NEXUS absolute score that assigns an isolated score of a company using only information specific to the company, the relative evaluation approach means that the LLM not only examines the alignment of a company's activities with the specified keywords and industry, but also considers how this alignment stands in relation to other companies.

For instance, when evaluating company information  $CI_j$  and company information  $CI_k$ , the LLM  $L_R$  determines which company demonstrates a stronger association with the keyword  $K$  and the relevant industry. This comparative analysis provides an enhanced understanding of where each company stands concerning its peers, highlighting those that are more thematically relevant. The NEXUS relative score thus reflect a company's position in the competitive landscape regarding specific themes, offering a comparative measure within the overall universe.

$$L_R(K, CI_j, CI_k) = \begin{cases} 1.0, & \text{Relative thematic relevance between company information and keyword is } \textit{very high} \\ 0.0, & \text{Relative thematic relevance between company information and keyword is } \textit{very low} \end{cases} \quad (2)$$

Equation 2: NEXUS Relative Score

Appendix D shows a streamlined procedure associated with the evaluation of relative thematic relevance score by using company information  $j$  and  $k$ . Referring to Equation 2 and Appendix D, the LLM analyzes the company information of both companies to assess which company demonstrates greater relevance to the specified keyword and its industry. This procedure is systematically applied to every possible permutation of the selected companies undergoing relative thematic relevance comparison, continuing until all companies are ranked from the highest to the lowest in thematic relevance.

## 5 Index Weighting Methodology

Please refer to Section 4 Index Weighting Methodology of the Akros Equity Index Methodology for the detailed processes involved with Index Weighting Methodology including but not limited to the following:

- Section 4.1 Market Capitalization Weighting
- Section 4.2 Equal Weighting
- Section 4.3 Mixed Weighting
- Section 4.4 Score-Based Weighting

## 6 Index Weight Capping Methodology

Please refer to Section 5 Index Weight Capping Methodology of the Akros Equity Index Methodology for the detailed processes involved with Index Weight Capping Methodology.

## 7 Index Maintenance

Please refer to Section 6 Index Maintenance of the Akros Equity Index Methodology for the detailed processes involved with Index Maintenance including but not limited to the following:

- Section 6.1 Regular Rebalancing
- Section 6.2 Ad-hoc Rebalancing

## 8 Index Governance

Please refer to Section 7 Index Governance of the Akros Equity Index Methodology for the detailed processes involved with Index Governance including but not limited to the following:

- 7.1 Index Committee

## A List of Eligible Exchanges

The following table shows the list of eligible and regulated exchanges that comply with specific regulations and standards set by financial authorities. The Individual Index Methodology specifies the exchanges and the listed securities from these exchanges which are utilized in the initial investable universe.

Country	Name of Exchanges	Country	Name of Exchanges
Argentina	Bolsa de Comerico de Buenos Aires	Luxembourg	Luxembourg Stock Exchange
Australia	Australian Securities Exchange	Malaysia	Bursa Malaysia
Austria	Vienna Stock Exchange	Mauritius	Mauritius Stock Exchange
Belgium	Euronext Brussels	Mexico	Mexico Stock Exchange
Brazil	Bolsa de Valores Mercadorias e Fu- turos	Morocco	Casablanca Stock Exchange
Bulgaria	Bulgarian Stock Exchange	Namibia	Namibian Stock Exchange
Canada	Canadian Securities Exchange	Netherlands	Euronext Amsterdam
	Toronto Stock Exchange	New Zealand	New Zealand Exchange
	TSX Venture Exchange	Nigeria	Nigerian Stock Exchange
Colombia	Bolsa de Valores de Colombia	Norway	Oslo Bors
Croatia	Zagreb Stock Exchange	Oman	Muscat Stock Exchange
Czech Republic	Prague Stock Exchange	Palestine	Palestine Securities Exchange
Denmark	NASDAQ OMX Copenhagen	Peru	Bolsa de Valores de Lima
Ecuador	Bolsa de Valores de Quito	Phillipines	Phillipines Stock Exchange
Egypt	Egyptian Stock Exchange	Poland	Warsaw Stock Exchange
Finland	NASDAQ OMX Helsinki	Portugal	Euronext Lisbon
France	Euronext Paris	Qatar	Qatar Exchange
Germany	Berlin Stock Exchange	Russia	Moscow Stock Exchange
	Dusseldorf Stock Exchange	Serbia	Belgrade Stock Exchange
	Frankfurt Stock Exchange	Singapore	Singapore Stock Exchange
	Hamburg Stock Exchange	Slovenia	Ljubljana Stock Exchange
	Munich Stock Exchange	South Africa	Johannesburg Stock Exchange
	Stuttgart Stock Exchange	South Korea	Korea Exchange KOSPI
Ghana	Ghana Stock Exchange		Korea Exchange KOSDAQ
Greece	Athens Stock Exchange	Spain	Bolsa de Barcelona
Hong Kong	Hong Kong Stock Exchange		Bolsa de Madrid
Hungary	Budapest Stock Exchange	Sri Lanka	Colombo Stock Exchange
India	BSE India	Sweden	Berne Stock Exchange
	National Stock Exchange of India		SIX Swiss Exchange
Indonesia	Indonesia Stock Exchange	Taiwan	Taipei Stock Exchange
Ireland	Irish Stock Exchange		Taiwan Stock Exchange
Israel	Tel Aviv Stock Exchange	Thailand	Stock Exchange of Thailand
Italy	Borsa Italiana	UK	BATS Europe
Ivory Coast	Bourse Regionale des Valeurs Mo- bilieres		London Stock Exchange
Japan	Tokyo Stock Exchange	Ukraine	Ukrainian Stock Exchange
	Fukuoka Stock Exchange	USA	Chicago Stock Exchange
	Nagoya Stock Exchange		NASDAQ
	Sapporo Securities Exchange		New York Stock Exchange
Kenya	Nairobi Stock Exchange		NYSE Arca
Kuwait	Kuwait Stock Exchange	Vietnam	Hanoi Stock Exchange
Latvia	NASDAQ OMX Riga		Ho Chi Minh Stock Exchange
Lebanon	Bourse de Beyrouth	Zimbabwe	Zimbabwe Stock Exchange

## B Akros Industry Classification System (AICS)

The Akros Industry Classification System (AICS) is a system created by Akros to facilitate investors' understanding of global companies and their business operations.

The AICS adheres to the 6-digit classification standards set by the North American Classification System (NAICS). Further building upon the foundation set forth by the NAICS, Akros has expanded upon this framework to increase the overall scope of the classification standards to encompass a broader range of companies globally.

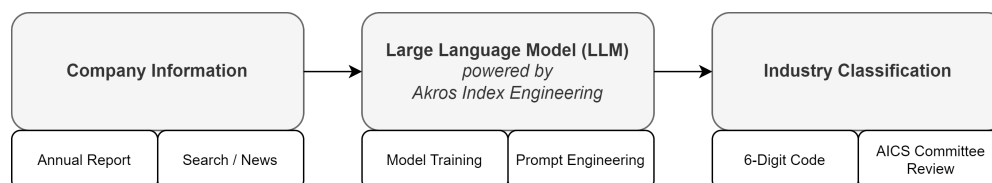


Figure 3: Process of Assigning the AICS label to a single company

Consequently, Akros has developed a scalable and systematic procedures to create classification labels that accurately represent the business operations of global companies.

Firstly, we gather publicly available information required to classify the company. These data include but are not limited to business description and revenue segment by product from the Annual Report, Search and News information available from online. Secondly, Akros developed its proprietary large language model (LLM) trained to the task to accurately label each company to an industry classification. The scope of model development includes training of the model to financial natural language data to fine-tuning and prompt engineering suitable for the classification task. Thirdly, the output of the classification label (6-digit-code) is reviewed by the AICS committee to ensure the assignment of the classification label that best reflects the business operation of the company.

The final output of the classification label is a 6-digit-code as AICS uses a 6-digit coding system structured in a hierarchical manner divided into 5 distinct classification levels, each offering varying degrees of specificity. At the foundation is the Sector level, classified with a 2-digit code, representing broad industry categories. This structure then progressively narrows down to Subsectors (3-digit), Industry Groups (4-digit), NAICS Industries (5-digit), culminating in the most granular classification, the 6-digit Industries. A zero as the sixth digit indicates that the NAICS industry and the U.S. industry are identical.

Most modern companies are not composed of a single business. For example, while Amazon operates an e-commerce business, it also owns AWS, a leading cloud service. Therefore, AICS follows NAICS, but performs a dual classification into Primary and Secondary Classification. The category contributing the most to revenue is considered for Primary Classification, while a complementary category that does not overlap with the Primary is chosen for Secondary Classification. Akros believes that such a structure of AICS enables a multifaceted industry classification that provides a holistic picture of the company.

Classification	Code Digits	Example Code	Example Name
Sector	2	11	Agriculture, Forestry, Fishing and Hunting
Subsectors	3	111	Crop Production
Industry Groups	4	1112	Vegetable and Melon Farming
NAICS Industries	5	11121	Vegetable and Melon Farming
6-Digit Industries	6	111211	Potato Farming

Table 3: Example of NAICS Classification

Please refer to the Akros Industry Classification System for further information.

## C Example of NEXUS Absolute Score

The example below shows the step-by-step procedure involved with assigning the NEXUS absolute score to each company through the application of Equation 1. Please note that the example uses a condensed version of the overall process and has been provided to facilitate the understanding of the process involved with evaluating the NEXUS absolute score. This example has used the case of *Microsoft Corporation* and the process involved with evaluating the absolute LLM thematic relevance score of *Microsoft Corporation* to the keyword *Artificial Intelligence*. The abbreviated sample of the company information collected on *Microsoft Corporation* is provided below.

[*Company Information i*] Microsoft Corporation develops and supports software, services, devices and solutions worldwide. The Productivity and Business Processes segment offers office, exchange, SharePoint, Microsoft Teams, office 365 Security and Compliance, Microsoft viva, and Microsoft 365 copilot; and office consumer services, such as Microsoft 365 consumer subscriptions, Office licensed on-premises, and other office services. This segment also provides LinkedIn; and dynamics business solutions, including Dynamics 365, a set of intelligent, cloud-based applications across ERP, CRM, power apps, and power automate ;and on-premises ERP and CRM applications.

Once the relevant data has been collected, the following question is proposed to the LLM to evaluate the NEXUS absolute score of *Microsoft Corporation* with regards to the keyword *Artificial Intelligence*.

Given [*Company Information i* ], to what extent is *Microsoft Corporation* relevant to the *Artificial Intelligence* Industry?

With reference to Equation 1, the LLM outputs a score from 0.0 to 1.0 which reflects the relevance from *very low* to *very high*.. The following is the output generated by Akros' proprietary LLM that has provided absolute thematic relevance *score* of *Microsoft Corporation* in relation to the keyword *Artificial Intelligence* based on the company information.

**Score: 1.0** (*very high* NEXUS Absolute Score)

**Reason:** Microsoft Corporation is a global technology company that develops and supports software, services, devices, and solutions. The company's business activities span across Productivity and Business Processes, Intelligent Cloud, and More Personal Computing segments. In the context of artificial intelligence (AI) software, Microsoft is deeply involved in AI solutions, responsible development and usage of AI, and advancements in AI to empower individuals and organizations. The company offers AI solutions through its Azure AI platform and is focused on AI-driven innovations across cloud infrastructure, applications, and security measures. Microsoft's commitment to AI is further demonstrated through partnerships and initiatives to train developers in AI, as well as the integration of AI into its products and services, including a new key for artificial intelligence on its keyboards. Wall Street analysts also recognize Microsoft's potential to monetize AI across its cloud services, positioning the company as a significant player in the AI industry.

The procedure is systematically repeated for every company within the investable universe, ensuring thorough coverage all companies that are subject to consideration as one of the index constituents. This method relies strictly on absolute criteria, assigning scores solely based on the company information provided that are specific to each company. In addition to the scores, the procedure also provides detailed reasoning, offering transparency and insight into the factors influencing each score as well as adding to explainability behind the scoring. Such a concrete approach allows a clear and precise evaluation of each entity with reason. Consequently, this process effectively identifies companies that are relevant based on absolute evaluation standards, facilitating informed decisions to elicit relevant companies grounded in consistent data.

## D Example of NEXUS Relative Score

The example below shows the step-by-step procedure involved with assigning the NEXUS relative score to each company through the application of Equation 2. Please note that the example uses a condensed version of the overall process and has been provided to facilitate the understanding of the process involved with evaluating the NEXUS relative score. This example has used the case of *Microsoft Corporation* and *Palo Alto Networks Inc.* to demonstrate the process involved with evaluating the NEXUS relative score of these companies in the context of the keyword *Artificial Intelligence* and its industry. The abbreviated sample of the company information collected on *Microsoft Corporation* and *Palo Alto Networks Inc.* is provided below.

[*Company Information i*] Microsoft Corporation develops and supports software, services, devices and solutions worldwide. The Productivity and Business Processes segment offers office, exchange, SharePoint, Microsoft Teams, office 365 Security and Compliance, Microsoft viva, and Microsoft 365 copilot; and office consumer services, such as Microsoft 365 consumer subscriptions, Office licensed on-premises, and other office services. This segment also provides LinkedIn; and dynamics business solutions, including Dynamics 365, a set of intelligent, cloud-based applications across ERP, CRM, power apps, and power automate ;and on-premises ERP and CRM applications.

[*Company Information j*] Palo Alto Networks, Inc. provides cybersecurity solutions worldwide. The company offers firewall appliances and software; and Panorama, a security management solution for the global control of network security platform as a virtual or a physical appliance. It also provides subscription services covering the areas of threat prevention, malware and persistent threat, URL filtering, laptop and mobile device protection, DNS security, Internet of Things security, SaaS security API, and SaaS security inline, as well as threat intelligence, and data loss prevention. In addition, the company offers cloud security, secure access, security operations, and threat intelligence and security consulting; professional services, including architecture design and planning, implementation, configuration, and firewall migration; education services, such as certifications, as well as online and in-classroom training; and support services. It sells its products and services through its channel partners, as well as directly to medium to large enterprises, service providers, and government entities operating in various industries, including education, energy, financial services, government entities, healthcare, Internet and media, manufacturing, public sector, and telecommunications.

Once the relevant data has been collected, the following question is proposed to the LLM to evaluate the NEXUS relative score of *Microsoft Corporation* and *Palo Alto Networks Inc.* in the context of the *Artificial Intelligence* and the industry.

Given [*Company Information j*] and [*Company Information k*], which company *Microsoft Corporation* or *Palo Alto Networks Inc.*, is relevant to the *Artificial Intelligence* Industry?

With reference to Equation 2, the LLM outputs a binary score of either 0.0 or 1.0 reflecting the thematic relevance of *Company Information j* relative to *Company Information k* as either *very low* or *very high*.. The following is the output generated by Akros' proprietary LLM that has provided relative thematic relevance score of *Microsoft Corporation* relative to *Palo Alto Networks Inc.* in the context of *Artificial Intelligence* based on the company information provided.

**Score: 1.0** (*very high* NEXUS Relative Score)

**Reason:** *Microsoft Corporation* is more relevant to the *Artificial Intelligence* industry due to its deep involvement in AI solutions and the Azure AI platform, AI-driven innovations across various segments, broad integration of AI into its products and services, commitment to responsible AI development and training, and strong monetization potential recognized by Wall Street analysts. In contrast, *Palo Alto Networks Inc.* focuses primarily on cybersecurity solutions such as firewall appliances, security management, and threat prevention services, with its core business centered around security rather than AI development. Therefore, *Microsoft Corporation* is more extensively involved in the Artificial Intelligence industry compared to *Palo Alto Networks Inc.*

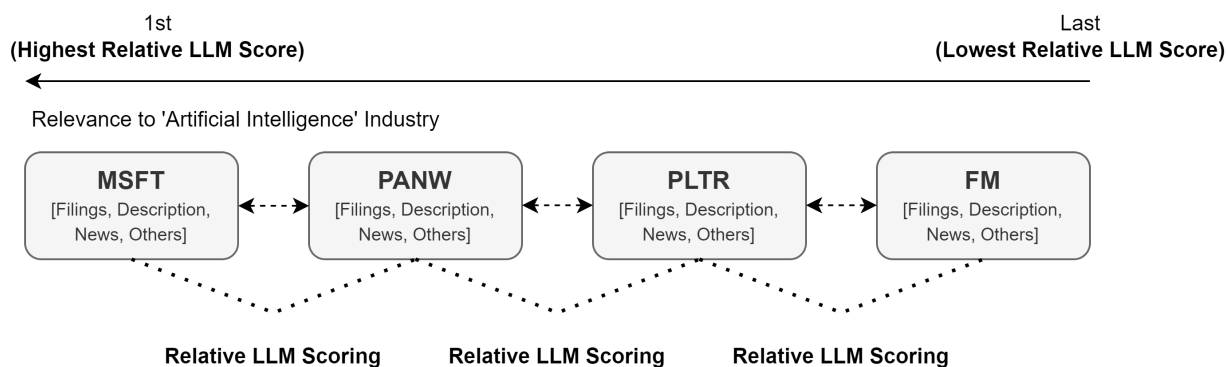


Figure 4: Systematic Repetition of NEXUS Relative Scoring

The procedure is systematically repeated for every possible permutation of the company that are subject to NEXUS relative scoring. Referring to Figure 4, the relative thematic LLM thematic relevance scoring is not only applied to *Microsoft Corporation* and *Palo Alto Networks Inc.*, but also evaluated for other combination like *Palantir Technologies* and *Ford Motors*. In fact if there are 4 companies that are subject to the evaluation of relative LLM thematic relevance score, a total number of  $P_2^4$  combination is performed and if there are  $n$  companies that are subject to the evaluation, a total number of  $P_2^n$  calculations is conducted.