



# Nasdaq Crypto Index Europe <sup>TM</sup> (NCIE <sup>TM</sup>)

# What is the Nasdaq Crypto Index Europe (NCIE)?

Launched in April 2022, the NCIE builds on the success of Nasdaq's flagship Index, the Nasdaq Crypto Index™.

The NCIE is designed to measure the performance of a material portion of the overall digital asset market while remaining compliant with ETP listing standards at specified European Exchanges. Much like its predecessor, the NCI, the NCIE is specifically intended to be dynamic in nature, broadly representative of the market, and readily trackable by investors.

## Index Overview:

- Tracks the performance of a diverse basket of USD-traded digital assets
- Applies liquidity, exchange and custody standards for asset eligibility
- Rebalanced and reconstituted on a quarterly basis
- Free float market cap weighted
- Governed by a robust methodology and the Nasdaq Cryptocurrency Index Oversight Committee (CIOC)

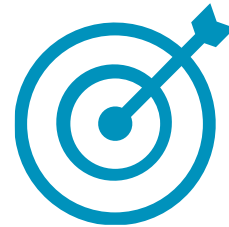


# Index Design Principles



## Representative

Provides a representative benchmark for institutional investment into the asset class



## Investible

Utilizes exhaustive selection criteria to include digital assets available at vetted core exchanges and custodians



## Adaptable

Adjusts index composition at each reconstitution to ensure that it remains a flexible representation of the asset class as it evolves

How does it work?



How does it work?

# I. Asset Eligibility Determination

## I. Determining Eligibility<sup>1</sup>

The universe of eligible assets is initially filtered on the basis of USD trading availability on approved “Core Exchanges” and with consideration of custody solution support by “Core Custodians”.

Specifically, eligible assets must:

- Meet minimum liquidity standards outlined in the methodology with USD trade pair<sup>2</sup>
- Meet ETP listing standards at SIX Swiss Exchange and Xetra
- Be traded on at least two core exchanges<sup>3</sup>
- Be supported by at least one core custodian<sup>3</sup>, and
- Have free-floating price

These filters allow the Index to remain neutral and passive while ensuring constituents possess sufficient liquidity and appropriate custody options required for institutional grade investment products.

<sup>1</sup> This is an overview of the selection criteria. For an exhaustive list and description, please review the NCIE Methodology: [https://indexes.nasdaqomx.com/docs/methodology\\_NCIE.pdf](https://indexes.nasdaqomx.com/docs/methodology_NCIE.pdf)

<sup>2</sup> Minimum liquidity standard requires eligible assets to have a median daily trading volume that is no less than 0.5% of the constituent crypto asset that has the highest median daily trading volume. Calculations are performed using the aggregate of the respective USD pair across all core exchanges, measured during the first 30 calendar days immediately following the previous reconstitution and rebalance day.

<sup>3</sup> Revised Core Exchange and Core Custodian requirements of two and one, respectively, become effective on June 1, 2022. Prior to this change, three Core Exchanges and two Core Custodians were required



How does it work?

## II. Constituent Selection from Eligible Assets

### II. Constituent Selection<sup>1</sup>

When all eligible assets are identified, the market capitalization of each asset is calculated.

Market capitalization of assets is calculated by multiplying the price of the asset across Core Exchanges by the free-float supply of the asset as defined in the methodology and calculated by Nasdaq's calculation agent, CF Benchmarks.

Assets that exceed 0.5% of the full market capitalization of all eligible assets are selected for inclusion.



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How does it work?

## III. Index Weights Applied

### III. Weighting Constituents<sup>1</sup>

Constituent assets selected for entry into the Index will be weighted according to their relative free float market cap.

This is calculated by dividing the free float market cap of a digital asset by the total free float market cap of all constituent assets included in the Index.

Weighting according to Circulating Supply of an asset without the application of capping is important to maintain an investable and accurate representation of the asset class.



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# Overview of Asset Selection Process



<sup>1</sup> Revised Core Exchange and Core Custodian requirements of two and one, respectively, became effective on June 1, 2022. Prior to this change, three Core Exchanges and two Core Custodians were required



# Core Exchanges<sup>1</sup>

With almost 500 crypto exchanges globally and varying degrees of user protection, it is important to source pricing only from vetted exchanges in order to form a trusted and accurate index price.

Nasdaq's pricing methodology requires a minimum of 2 Core Exchange pricing inputs as part of mechanisms to reduce the impact of potential manipulation in the index price.

Limiting inclusion to assets supported by at least 2 Core Exchanges ensures inclusion only of those assets that have been on-boarded by a critical mass of "institutional-ready" infrastructure.



<sup>1</sup> Core Exchange requirements were revised from three to two, effective on June 1, 2022. This is an overview of the selection criteria. For an exhaustive list and description, please review the NCIE Methodology: [https://indexes.nasdaqomx.com/docs/methodology\\_NCIE.pdf](https://indexes.nasdaqomx.com/docs/methodology_NCIE.pdf)

# Core Exchanges<sup>1</sup>

## Key Selection Criteria

1. Effective AML/KYC controls in place
2. Licensed by independent public governing body
3. Effective trade monitoring surveillance
4. Demonstrate robust IT infrastructure
5. Commitment to cooperate with regulators and law enforcement

## Approved Core Exchanges

1. Coinbase
2. BitStamp
3. Gemini
4. itBit
5. Kraken



# Core Custodians<sup>1</sup>

Custodians hold digital assets for safekeeping against theft and loss.

Limiting inclusion to assets supported by at least 1 Core Custodian ensures an asset pool with sufficient market maturity as custodians evaluate security and legal risks as well as market demand when deciding to provide custody services to an asset.



# Core Custodians<sup>1</sup>

## Key Selection Criteria

1. Licensed by an independent governing body
2. Provide independent segregated client accounts
3. Utilize advanced security infrastructure to include private key segmentation, multi-signature capabilities & geographic distribution
4. Insurance policy that covers, at least partially, theft or loss of private keys
5. Offers timely and secure redemption process
6. Demonstrate comprehensive risk management and risk mitigation processes
7. Evidence of third-party security audits

## Approved Core Custodians

1. Coinbase
2. BitGo
3. Fidelity
4. Gemini

<sup>1</sup> Core Custodian requirements were revised from two to one, effective on June 1, 2022. This is an overview of the selection criteria. For an exhaustive list and description, please review the NCIE Methodology: [https://indexes.nasdaqomx.com/docs/methodology\\_NCIE.pdf](https://indexes.nasdaqomx.com/docs/methodology_NCIE.pdf)

# Nasdaq Crypto Index Oversight Committee

Comprised of senior members across Nasdaq's Legal, Risk, Compliance, Trading, Surveillance, IT, and Index teams to ensure varying viewpoints and expertise.

Responsible for the implementation, administration, and general oversight of the Index, including the selection of Core Exchanges and Core Custodians, adjustments to account for regulatory changes, and periodic methodology reviews.

Committee conducts a final review of all eligible assets prior to entry at the quarterly reconstitution wherein it reserves the right to exclude any assets based on one or more factors, including, but not limited to, its review of general reputational, legal, regulatory or security concerns connected to any asset.

Nasdaq will review new Core Exchange and Core Custodian candidates throughout the year and announce any new additions when approved. The list of existing Core Exchanges and Core Custodians will be recertified by the CIOC at minimum on an annual basis.



# Index Weights and Components (as of 12/29/2023<sup>1</sup>)

Component	Weight
Bitcoin (BTC)	61.97%
Ethereum (ETH)	25.17%
Solana (SOL)	5.02%
Ripple (XRP)	2.64%
Cardano (ADA)	2.09%
Avalanche (AVAX)	0.86%
Polygon (MATIC)	0.76%
Litecoin (LTC)	0.49%
Polkadot (DOT)	0.38%
Bitcoin Cash (BCH)	0.34%
Uniswap (UNI)	0.27%

 <sup>1</sup> Source: <https://indexes.nasdaqomx.com/Index/Weighting/NCIE> using end of day data on 12/29/23

# Additional Information

Ticker Symbol	NCIE (Real-Time) and NCIES (Daily Settlement)
Calculation Agent	The Index is calculated by CF Benchmarks Limited
Reconstitution and Rebalancing Frequency	Reconstitution and rebalances occur quarterly (First business day of March, June, September and December)
Index Launch Date	April 6, 2022
Daily Index Publication (NCIES)	The level of the Settlement Index is calculated once a day on Business Days at 5:00:00 PM Zurich Time and is published on the Nasdaq Global Index Data Service (GIDS)
Real-Time Index Level (NCIE)	Real-time calculation of the Index is available on the CF Benchmarks website at <a href="https://www.cfbenchmarks.com/indices/NCIE">https://www.cfbenchmarks.com/indices/NCIE</a>
Currency	USD

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