

# The Emerging Crypto Industry

Global market size and geographical distribution





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## Report summary

While still young, the crypto industry is rapidly emerging as a distinct industry with substantial job and value creation globally. In the years to come, we expect that the industry will continue to grow as the technology becomes more mainstream. This will create opportunities for countries with the right regulatory conditions and political backing to attract capital and highly skilled jobs in an industry that can deliver products digitally from any location in the world.

In this report, we map out the entire global crypto industry, providing a comprehensive and detailed overview. We have identified about 10,000 companies with a combined valuation of almost \$200 billion and close to 200,000 people working with crypto worldwide. To the best of our knowledge, this is the first attempt at sizing the entire industry from the perspective of value creation and employment rather than token market capitalization.



### Cryptocurrencies



Total market cap

**\$1.2 trillion**

### The Crypto Industry



No. of companies

**10,000**



Employees

**190,000**



Valuation

**\$180 billion**

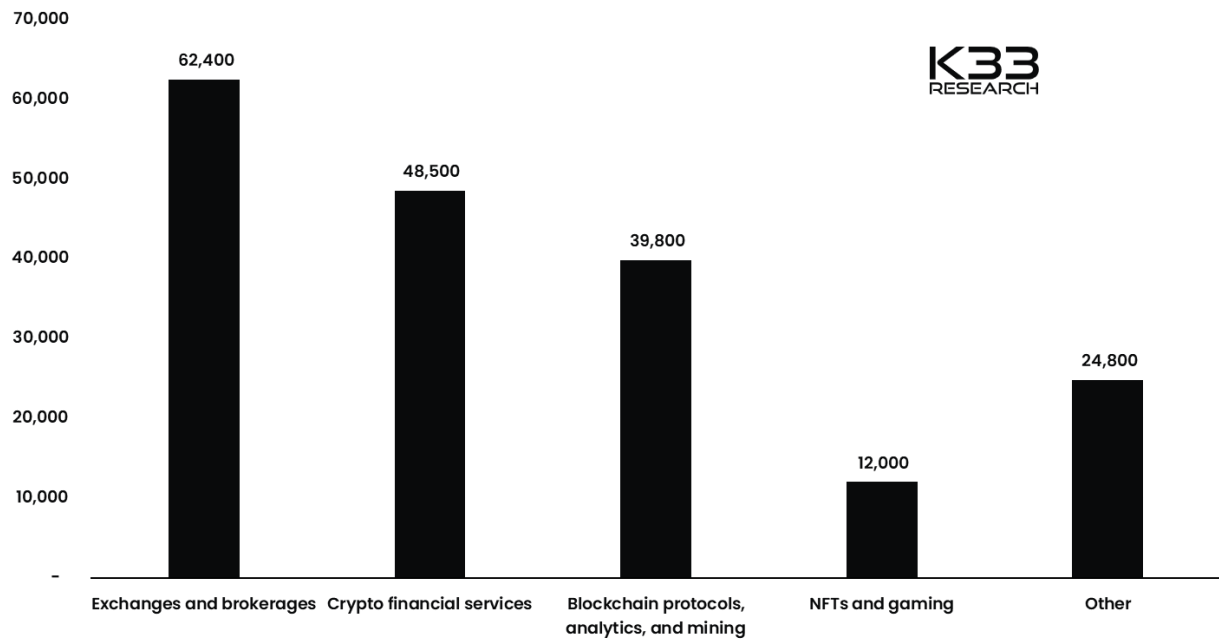
Date: July 5, 2023

The most popular use case for cryptocurrencies to date is trading and investment. The orientation of the crypto industry is clearly affected by this. 60% of employees in the crypto industry work in an entity that is focused on facilitating crypto trading and investment.

NFTs were the talk of early 2022, with plenty of artists and especially game producers coming into the space. Even though the mania has subsided, more than 10,000 people still work on NFTs and NFT gaming projects.

In addition, 40,000 people are working on other projects more directly related to blockchain activity, such as blockchain protocols, analytics, and mining. The brunt of these people works on various blockchain protocols, where individual projects can employ hundreds of people. Finally, about 25,000 people are in crypto jobs that do not fall under any of the main categories.

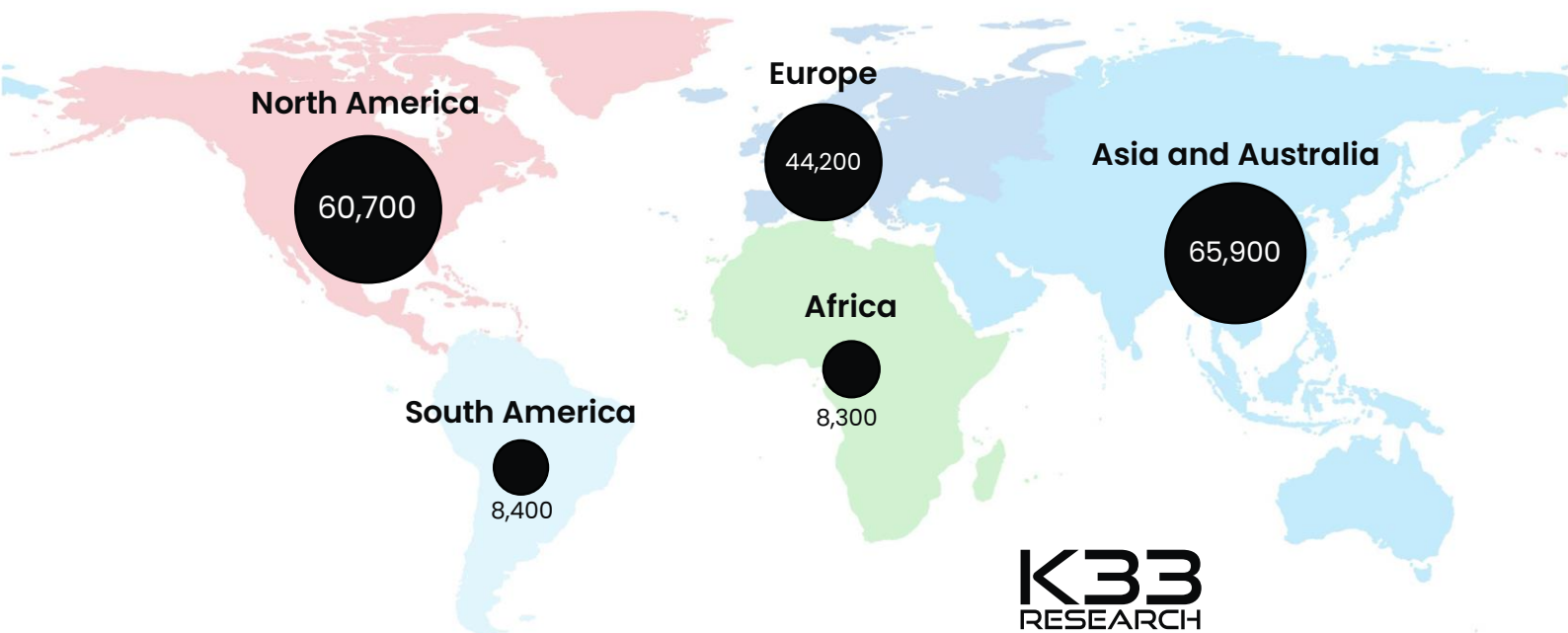
**Figure 1 – Employment by Types of Companies/Entities**



Source: K33 Research

Remote work is prevalent in the crypto industry – well in line with the borderless ethos of crypto in general. Further, several of the largest crypto companies are headquartered in jurisdictions with crypto-friendly regulations and lower taxes. These companies typically employ people globally through local offices or on a pure remote structure, with the headquarter servicing as a convenient solution to reduce costs and friction.

**Figure 2 – Crypto Industry Employment by Country of Residency.**



Source: K33 Research

The crypto industry is U.S.-centric, with many of the largest companies originating from the U.S. and 30% of the crypto workforce residing there.

While the crypto industry is highly U.S.-influenced, 70% of crypto workers live outside the U.S. Generally, the Western world and Eastern Europe are overrepresented compared to population numbers. However, the presence in terms of absolute numbers is also significant in Southeast Asia and India.

South America and Africa generally lag in crypto industry employment. At the same time, there's a strongly growing presence in certain South American and African countries. The continents are also, by many, regarded to be most ripe for widespread crypto adoption due to a relative lack of financial access compared to North America, Europe, and Asia.

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# 1 Cryptocurrencies: A trillion-dollar market

Ten years ago, the concept of cryptocurrencies was a nascent and largely unproven technology, with their collective value teetering close to zero. Fast forward to the present day, and the crypto landscape has undergone a staggering transformation, with all cryptocurrencies boosting a cumulative worth of \$1,230 billion. This exponential surge in value has propelled cryptocurrencies from the fringes of the financial world into relevancy.

**Figure 3 – Cryptocurrencies Market Capitalization**



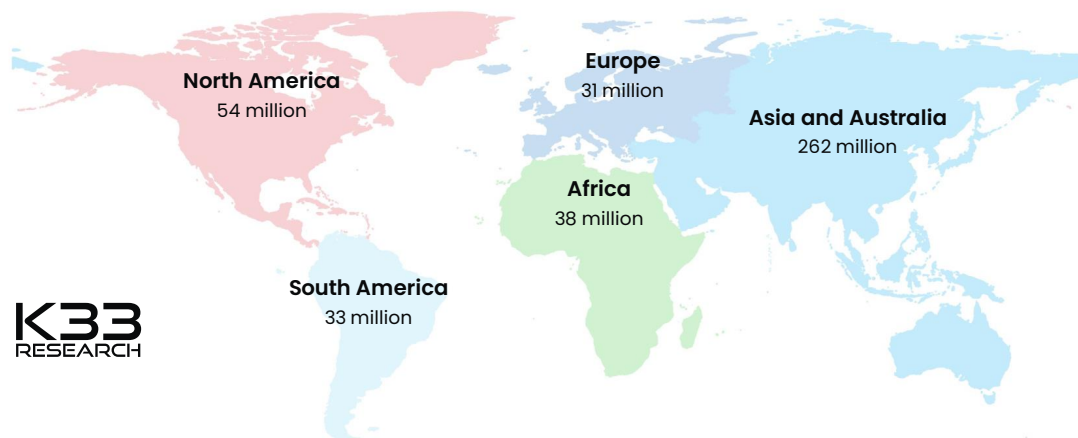
Source: CoinGecko

## 1.1 Almost half a billion people owns crypto

The pseudonymous nature of crypto makes it hard to know how many own cryptocurrencies. A recent survey estimated that over 420 million people own crypto.<sup>i</sup> The Americas has the highest frequency of crypto owners, especially in the U.S., where more than 10 percent of the population owns crypto. The highest number of crypto owners is in the populous Asia region, while Africa has the lowest crypto penetration rate. It should still be noted that crypto is hugely popular in certain parts of Africa.

<sup>i</sup> Source: Triple-A

**Figure 4 – Crypto owners by continent**



Source: Triple-A

In tandem with the growing popularity of cryptocurrencies, a specialized industry has risen. While still small in the larger picture, crypto's rapid rise and potential make this an industry to monitor going forward. In this report, we present the current state of the crypto industry, including estimates for the number of people working with crypto and geographical breakdowns.



## 2 The Crypto Industry: 10,000 companies valued at \$180 billion

The number of companies specializing in cryptocurrencies has exploded over the last five years. Still, to the best of our knowledge, no one has presented a complete mapping of the industry surrounding cryptocurrencies. In this report, we address this informational void. In our work, we have identified about 10,000 current companies or projects operating in what we label as *the crypto industry*. Based on funding and other company data, we estimate that the combined valuation of the industry is \$180 billion.



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#### Definition of the crypto industry

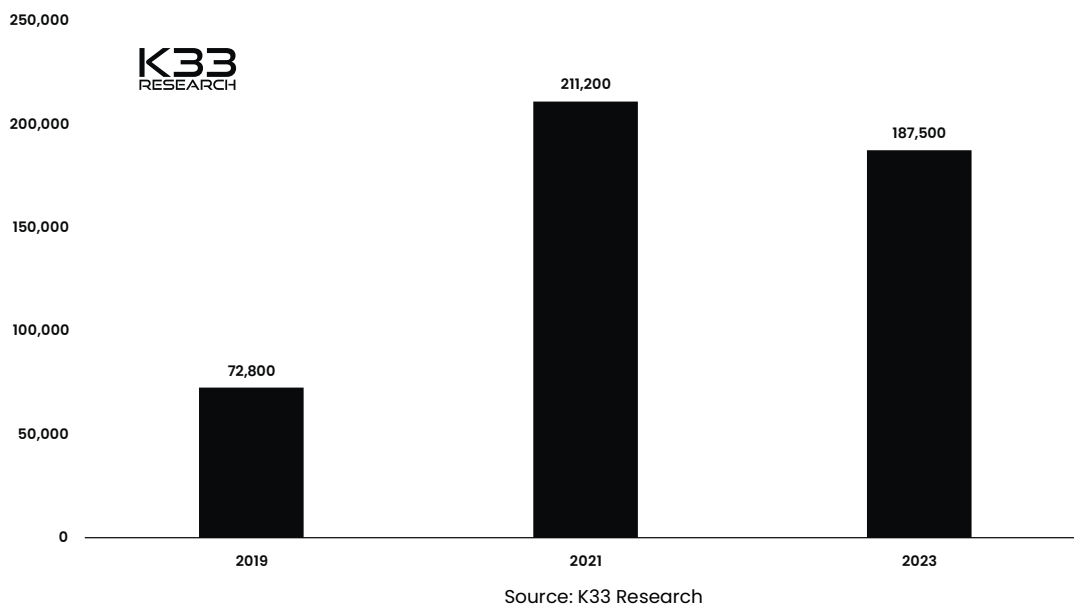
Companies that build blockchain protocols and services, have a business model reliant on blockchain networks, or offer services related to cryptocurrencies and decentralized blockchain networks as their main line of business. Our definition does not include people or companies purely investing in cryptocurrencies on their own behalf.

We should also mention that company valuations fluctuate, and few more than in the crypto industry. An industry valuation is, therefore, sensitive to timing. If this report had been written at the peak of the crypto funding race in early 2022, the industry valuation would have been significantly loftier.

### 3 190,000 people work in the crypto industry

Cryptocurrency and company valuations peaked in late 2021 to early 2022. The crypto industry employment also peaked in this period, but the drawdown in employment has been much less subdued than valuations. We estimate that there are close to 190,000 people employed in the crypto industry as of July 2023.<sup>ii</sup> At the peak of the last bull market, the corresponding number was slightly over 210,000. Comparing to the numbers before the crypto hype that started in 2020 shows that the number of people working in the crypto industry is significantly higher today.

**Figure 5 – Global Crypto Employment**



The distribution of employment in the crypto industry resembles that of most other sectors. There are some mega companies that employ thousands of people and make up a significant portion of jobs. Still, it should be noted that the majority of people are employed at medium to small businesses. As the saying goes, many mickles make a muckle.

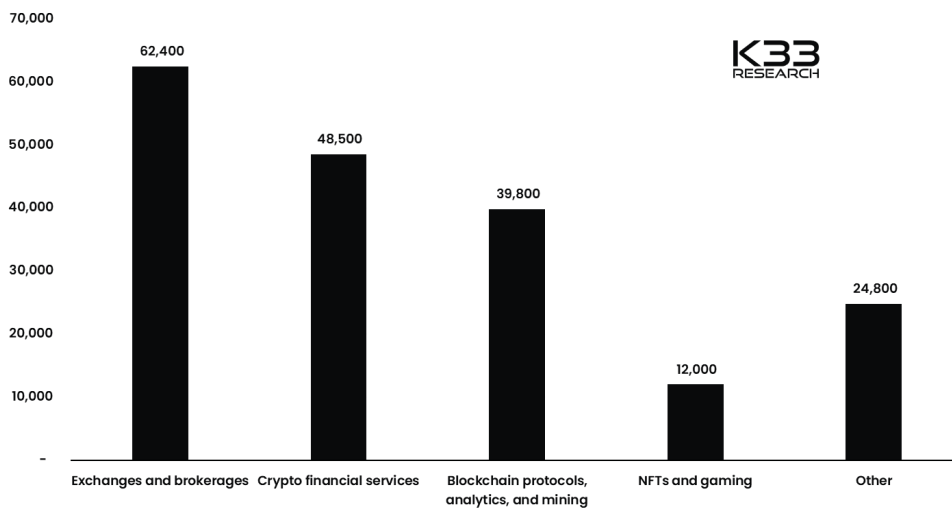
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<sup>ii</sup> The estimates are obtained through a method consisting of direct mappings, iterative AI-boosted internet searches with manual oversight, and generalizing spotwise complete information. Read more about the methodology in the Appendix.

### 3.1 Most crypto jobs are related to investments and trading

The most popular use case for cryptocurrencies to date is trading and investment. The orientation of the crypto industry is clearly affected by this. 60% of crypto employees work in an entity that’s mainly focused on facilitating crypto trading and investment. 62,000 people work for crypto exchanges and brokerages, while close to 50,000 people work for companies offering other crypto financial services. The category ‘Crypto financial services’ applies to a broad range of companies, from credit/lending companies, companies offering payment solutions, custody services, and other services related to the handling of crypto for non-blockchain use purposes.

**Figure 6 – Employment by Types of Companies/Entities**



Source: K33 Research

NFTs were the talk of early 2022, with plenty of artists and especially game producers coming into the space. Even though the mania has subsided, plenty of people are still working on NFT projects, many of which are related to blockchain gaming.

In addition, 40,000 people are working on other projects more directly related to blockchain activity, such as blockchain protocols, analytics, and mining. The brunt of these people works on various blockchain protocols, where individual projects can employ hundreds of people. Analytics is much more of a niche. Mining companies are a crossover between energy and crypto companies and are naturally very Bitcoin-centric since Ethereum switched to proof of stake. Finally, about 25,000 people are working in crypto jobs that do not fall under the other categories.

# 4 The typical crypto companies

Before delving into the geographic spread of the crypto industry, we will give you a quick overview of the typical crypto companies. Below, we have listed ten types of crypto companies that together provide a good overview of the variation and distinctions in the crypto industry.

### Typical Crypto Companies

Crypto Exchanges and Brokerages

Crypto Mining

Market Makers

Blockchain Protocol Projects

Crypto Investment and Asset Management

DeFi and NFT Projects

Wallet, Security, and Custody Providers

Crypto-related Research and Analytics

Crypto Payment Solutions

Crypto Media and News Outlets

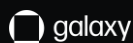
In the following sections, we will briefly describe each category in our list of typical crypto companies.

### Crypto Exchanges and Brokerages

Examples

 coinbase

 BINANCE

 galaxy

Crypto exchanges and brokerages provide platforms for buying, selling, and trading cryptocurrencies. An exchange is a market place that facilitates the matching of buyers and sellers for a given asset pair. It allows traders to find counterparties willing to execute transactions with them. A brokerage, on the other hand, transacts directly with its clients. It acts as an intermediary between investors and the market, facilitating the buying and selling of assets.

### Market Makers

Examples

 FALCONX

 GSR

 WINTERMUTE

Market makers are entities or individuals that provide liquidity to the cryptocurrency markets. They help ensure that there is a continuous supply of buy and sell orders by actively trading and quoting prices. Market makers play a crucial role in reducing

price volatility and improving market efficiency. They earn profits through the bid-ask spread and may use various strategies to manage risk and maintain balanced order books.

### Crypto Investment and Asset Management

Examples



P A N T E R A

Crypto investment and asset management companies specialize in managing investment portfolios that include cryptocurrencies. They offer services such as cryptocurrency funds, hedge funds, and digital asset management. These companies provide investors with access to diversified crypto portfolios, investment strategies, risk management, and market analysis.

### Wallet, Security, and Custody Providers

Examples



Fireblocks

Wallet, security, and custody providers focus on delivering secure storage solutions for cryptocurrencies. They offer digital wallets, hardware wallets, and custody services to protect private keys and ensure the safekeeping of digital assets. Wallet providers may vary in terms of security features, accessibility, multi-currency support, and ease of use. Custody providers, on the other hand, specialize in secure storage solutions for institutional clients, offering enhanced security measures and regulatory compliance.

### Crypto Payment Solutions

Examples


bitpay



CG  
COINGATE




Companies in this category develop payment solutions that enable the use of cryptocurrencies for transactions. They create tools and platforms for merchants and others to accept cryptocurrency payments, providing integration options, payment processing services, and conversion to fiat currencies if desired. These solutions aim to bridge the gap between traditional payment systems and cryptocurrencies, allowing for seamless transactions and increased adoption.

### Crypto Mining

Examples   

Mining companies engage in the process of validating transactions and adding them to the blockchain. They use specialized hardware and computational power to 'solve' cryptographic hash functions, earning rewards in the form of newly minted cryptocurrencies when they are successful in doing so first.

### Blockchain Protocol Projects

Examples   

Blockchain protocol projects develop and maintain blockchain protocols. They create the underlying technology that powers cryptocurrencies and decentralized applications (DApps). Blockchain protocol projects may offer unique features such as scalability, privacy, smart contract capabilities, interoperability, and consensus mechanisms. They play a fundamental role in shaping the infrastructure and functionality of the crypto ecosystem.

### DeFi and NFT Projects

Examples   

DeFi (Decentralized Finance) projects aim to recreate traditional financial systems and services in a decentralized fashion using blockchain technology. They include applications such as decentralized exchanges, lending platforms, yield farming protocols, and decentralized stablecoins. NFT (Non-Fungible Token) projects focus on creating unique digital assets that represent ownership or access to specific items, such as artwork, collectibles, or virtual real estate. These projects leverage blockchain to enable verifiable ownership and scarcity in the digital realm.

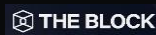
### Crypto-related Research and Analytics

Examples   

Crypto-related research and analytics companies provide research, analysis, and insights into the crypto industry. They offer market data, trend analysis, investment research, and consulting services.

### Crypto Media and News Outlets

Examples



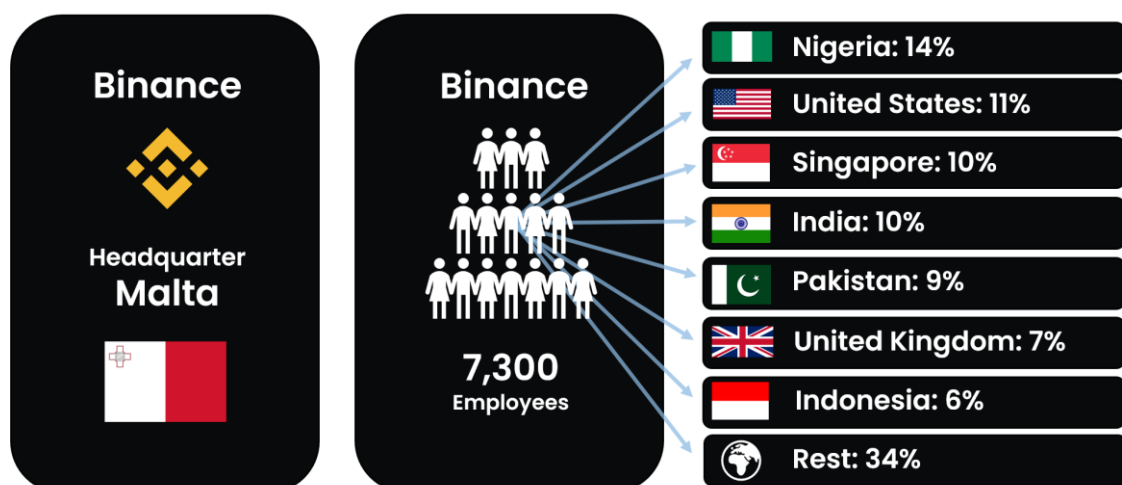
Crypto media and news outlets specialize in providing news, information, and educational content related to cryptocurrencies and blockchain technology.

## 4.1 Large Crypto Companies are often rigged for remote work

Large crypto companies are often structured for remote work, leading to a global employee base. Several of the largest crypto companies are headquartered in jurisdictions with crypto-friendly regulations and lower taxes. These companies typically employ people globally through local offices or on a pure remote structure, with the HQ servicing as a convenient solution to reduce costs and friction.

Binance best exemplifies the global nature of large crypto companies. Binance is headquartered in Malta, but only 0.2% of its employees originate from Malta. Binance's employee base is evenly distributed among multiple regional hubs, enabling the company to operate on a 24/7 basis, covering all relevant jurisdictions in the global crypto markets.

**Figure 7 - Binance's Employee Base by Country**



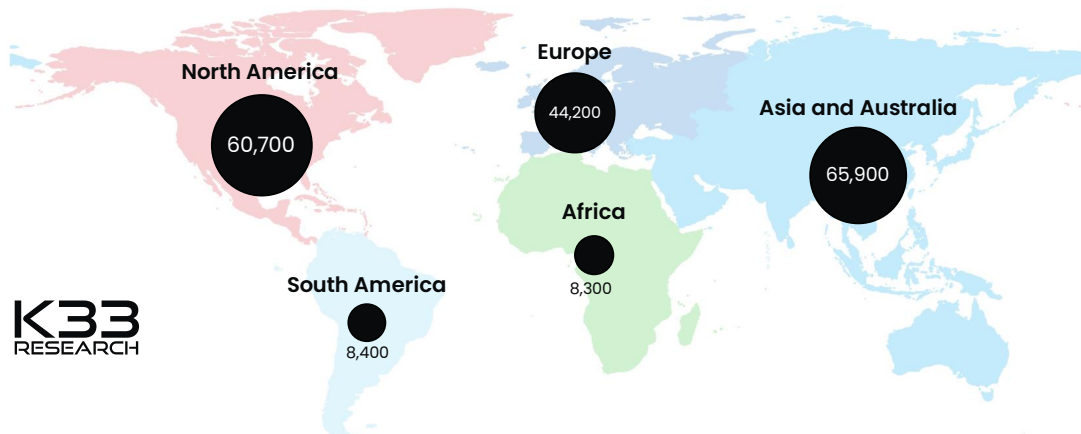
Source: K33 Research

## 5 A global industry

The global nature of crypto is deeply rooted in the underlying technology that drives cryptocurrencies: blockchain networks. These networks, built on decentralized principles, enable peer-to-peer interactions without the need for intermediaries or central authorities. Consequently, the borderless nature of blockchain networks allows for the seamless transfer of digital assets and information across the globe, irrespective of national borders or time zones.

While the individual companies in the crypto industry fall under jurisdictions, the global ethos remains with crypto companies headquartered in most parts of the world. Also, many major industry players operate in a fully remote setup which leads to a more distributed workforce than company locations alone indicate.

**Figure 8 – Crypto Industry Employment by Country of Residency.**



Source: K33 Research

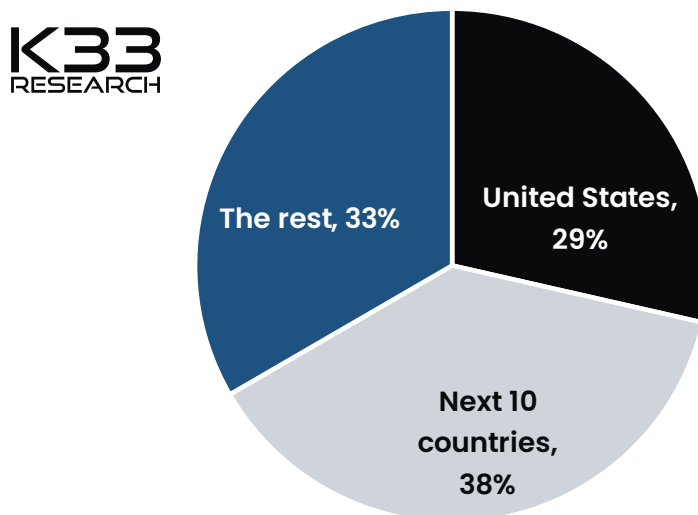
Still, like crypto ownership, crypto workers are overrepresented in the Western world. About 55% of crypto workers live in North America and Europe. The populous major economies of Asia also employ a significant number in the industry. While the industry is much smaller, both absolutely and relatively, in South America and Africa, the industry has a strong presence in some regions, and these markets are seen to have extremely high growth potential. Also, like many other tech companies, irrespective of company headquarters, the crypto industry employs developers in many developing countries like India, Nigeria, Bangladesh, and Pakistan.



## 5.1 Everything's bigger in the U.S. – also crypto

Many of the world's most influential crypto companies are based in the U.S., incentivized by deeper capital markets, the dollar influence, deep tech and finance knowledge from Silicon Valley and New York hubs, and in general early adoption of crypto infrastructure and developments. The U.S. dominance also extends to the number of people working in the crypto industry. 29% of crypto workers reside in the U.S., an exceptionally high number considering the second largest country having more than four times less crypto workers.

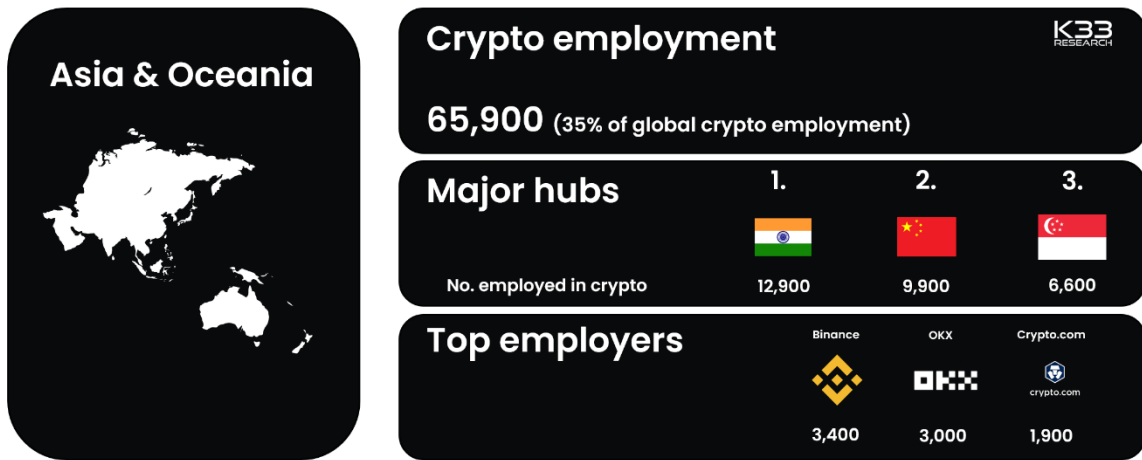
**Figure 9 – Geographic Distribution of Crypto Industry Employment**



Source: K33 Research

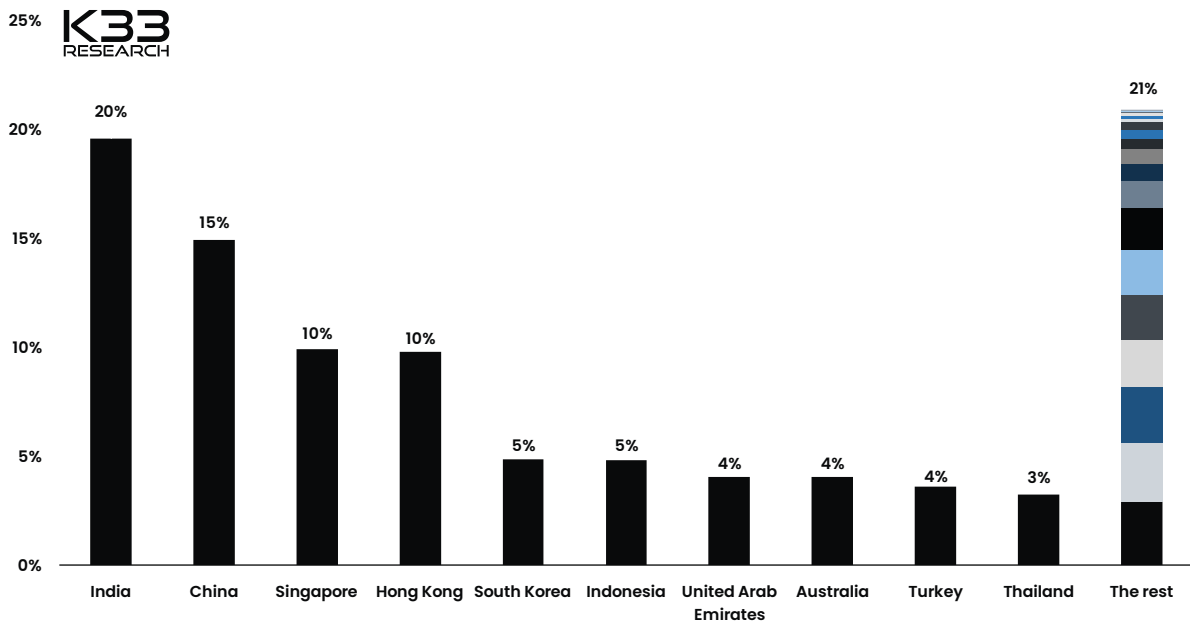
While the crypto industry is U.S.-centric, 71% of crypto workers live outside the US. In the following sections, we will present the numbers and highlight the most important findings continent by continent.

### 5.1.1 Singapore and Hong Kong are crypto hubs in Asia



The two most populous countries dominate crypto employment in Asia. However, under the hood, Asia flourishes with uniqueness, with several countries seeing substantial employment within national exchanges and three distinct highly influential hubs facilitating infrastructure for the global crypto market.

**Figure 10: Asian Crypto Employment Distribution**



Source: K33 Research

India has overtaken China to become the largest crypto employer in Asia. The thriving Indian crypto job market is enabled by major Indian-domiciled crypto exchanges, in addition to a substantial Indian presence in most of the major crypto companies globally. India is the second most common origin country for companies registered in the U.S. and the fourth most common origin country in the U.K., with Indian employment tending to relate to developer jobs.

We find India as the largest within Asia and the third largest country in the world measured by employment. India is the home of major Indian-domiciled exchanges CoinSwitch and CoinDCX, in addition to Polygon. Further, India tends to score very high on developer-related jobs, with many crypto companies hiring Indian developers motivated by lower salary requirements and strong competence.

China is the second biggest crypto employer in Asia, despite the longstanding hostile stance on the industry from the Chinese government. China was definitely a cornerstone region for the crypto industry in its infancy. The advanced financial infrastructure and vast derivatives market in crypto have deep roots from China. There is no understatement to acknowledge that OKX and Huobi both enhanced the market integrity and utilization of futures instruments in the early-stage bitcoin derivatives market. Further, China was long by far the biggest Bitcoin miner, representing 53% of the BTC hashrate as late as December 2020, backed by large industrial miners and Bitmain pushing the pendulum in terms of optimizing mining equipment.

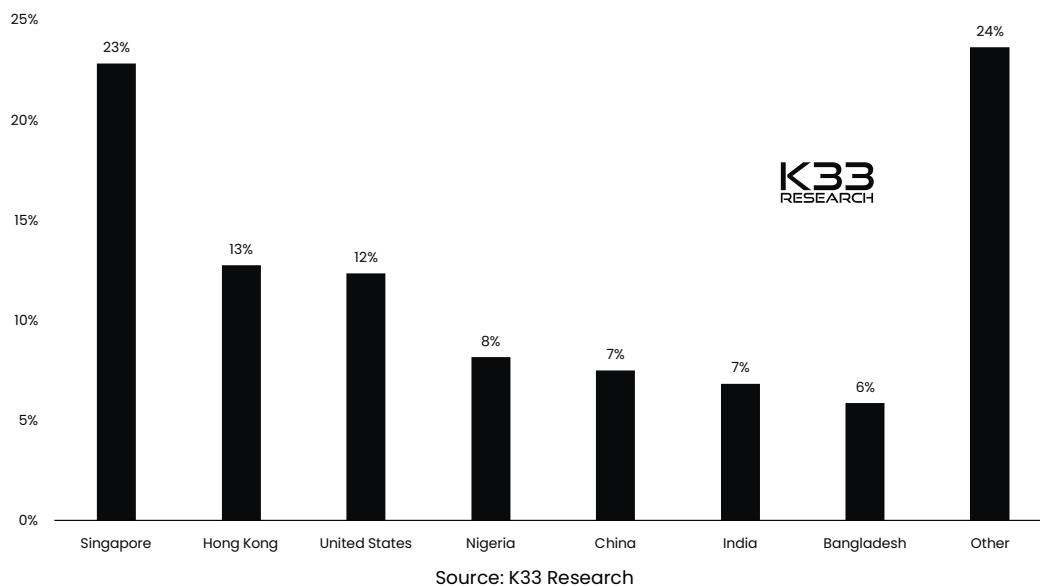
In later years, the Chinese government has enforced strict policies against crypto miners and crypto exchanges, leading companies with Chinese origins to flag out from the region. Nonetheless, while headquarters have changed, the competence built throughout the 2010s has led to a long-lasting competitive Chinese workforce. Companies flagged out but core employees of Chinese origin remained, with their experience representing valuable assets, in particular for companies primarily based in the APAC. Out of all employment numbers distributed in this report, Chinese workforce numbers are the most uncertain. Mapping out Chinese activity in crypto is notoriously challenging, in particular following the Chinese crackdown on the industry. We've had a conservative approach in estimating the Chinese employment numbers, and Chinese employment dominance could be an underestimation.

Several Chinese companies flagged out to the Seychelles and Cayman Islands following the Chinese crackdown, but a healthy share of crypto companies also migrated to Singapore and Hong Kong in the aftermath. Singapore and Hong Kong

are important hubs for the global crypto industry, particularly in the APACs. Singapore benefits from clear regulation, a strong presence in the global financial markets, and low taxes. Hong Kong has seen more regulatory uncertainty, but benefits from both taxes, relevancy in financial markets, and close ties to mainland China have made the region a suitable hub for crypto companies.

Companies in both regions are highly influential in the global crypto economy, as both states share the characteristic that they are global open hubs with citizens from all across the globe. The UAE has also seen similar tendencies in recent years. A common observation from companies registered in Singapore, Hong Kong, and the UAE is the global nature of their employee base. Unlike most other countries in this report, Singaporean employment tends to be globally distributed as remote work and regional offices are common.

**Figure 11 – Singaporean HQ Crypto Companies – Employees’ Country of Residency**



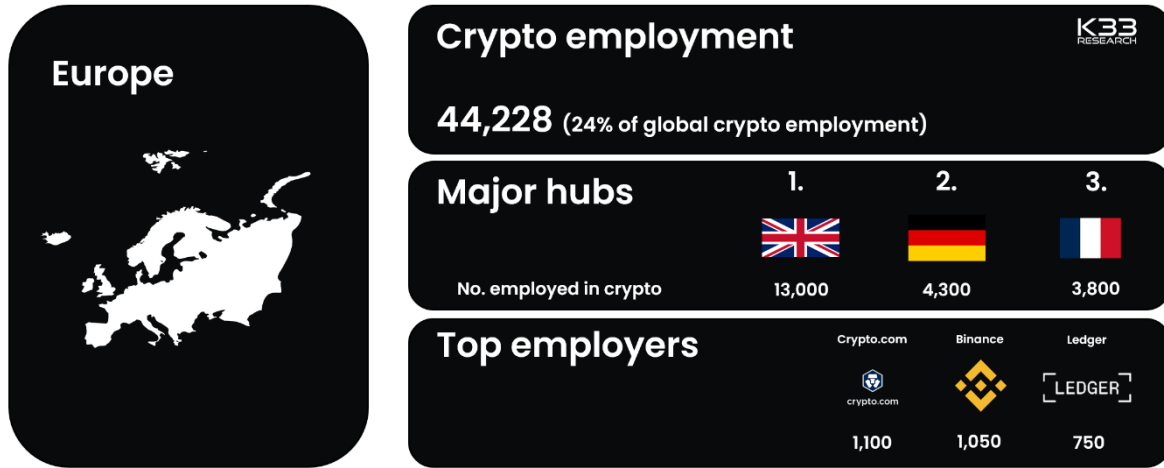


Another important observation from the APAC countries is the dominating role of domestic exchanges. Major domestic exchanges contribute substantially to domestic employment as these exchanges service significant volumes in markets either affiliated with restrictive capital flows, such as South Korea and Japan, or within less commonly traded fiat pairs such as the Bhat and Philippine Peso.

In India, CoinDCX and CoinSwitch Kuber both claim that they service +10m customers, and both companies have headcounts surpassing 500 employees. Bitkub, Thailand's biggest crypto exchange, serves 4.2 million users, while Indodax in Indonesia claims to have more than 5 million registered users. In South Korea, Bithumb services some 6.5 million users, while Upbit users totaled 8.9 million users. Bitflyer in Japan services some 3 million users, while Coins.ph in the Philippines claims to service a staggering 16 million users.

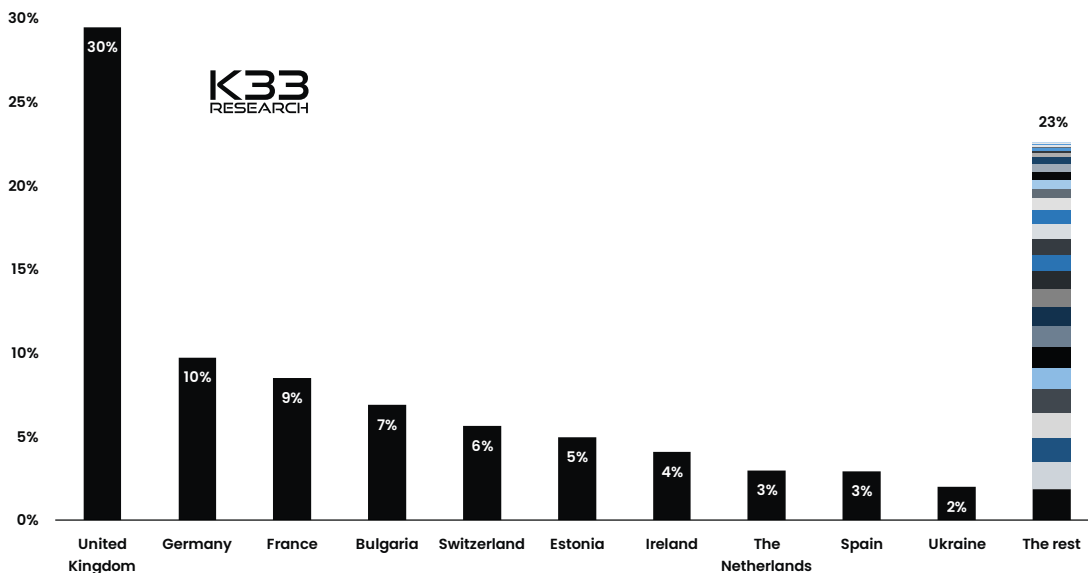
The adoption of domestic exchanges in these regions leads all these exchanges to represent a key source of crypto employment in the above-mentioned countries. We also note similar traits elsewhere in the world, most notably in Turkey with BTCTurk and in Brazil with Mercado Bitcoin.

## 5.2 The U.K. accounts for one third of crypto employment in Europe



In Europe, the United Kingdom sees nearly a third of all crypto employment, while EU majors France, Germany, Spain, and Italy represent a further 23% of European crypto employment. Further employment is scattered throughout the continent, with a distinct presence in Ireland and Switzerland caused by low taxes and crypto-friendly regulations.

**Figure 12: European Crypto Employee Distribution**



Source: K33 Research

The U.K. dominance has multiple natural explanations. Traditionally, London and the U.K., in extension, have been the European Financial powerhouse. The crypto dominance follows as a natural progression, in particular on the institutional side. Additionally, employees based in the U.K. represents a non-negligible share of the employment from companies registered in the U.S., Singapore, and Switzerland.

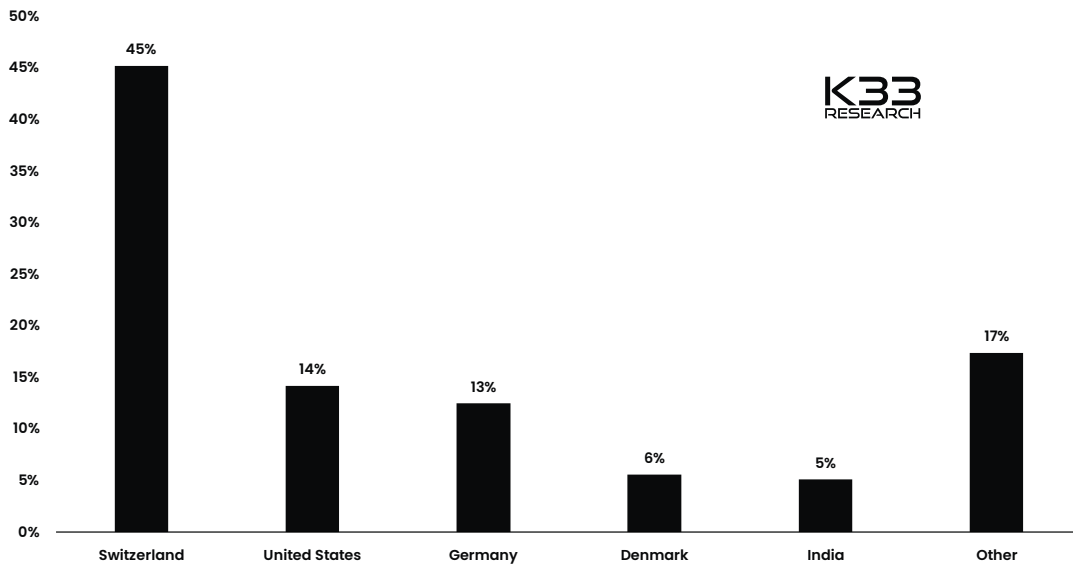
Following the U.K. Brexit, the U.K. has been well positioned to construct an independent regulatory crypto framework, and the government is signaling an open-minded, friendly regulation, providing FinCEN-licenses for U.K.-based crypto venues, with multiple U.K.-ETF and CCP-based derivatives offerings being in the works.

France, Germany, Spain, and Italy represent 23% of European crypto employment; in extension, the major EU constituents employ nearly a fourth of all European crypto employment. EU's MiCA framework was passed in the EU parliament earlier in 2023, leading the EU to become the first major jurisdiction to introduce a tailored regulatory framework for crypto.

As the EU's MiCA framework goes into effect, these regions may experience an influx of employment and companies flagging towards the EU. Particularly from the U.S., as Europe may be viewed as a more attractive option considering the borderline hostile stance taken by regulators in the U.S. It still remains to be seen how MiCA will play out in practice. The framework is not clear for concrete purposes and can be interpreted in many different ways. Clarifications and precedent will be of vital importance for whether the EU will be regarded as crypto-friendly.

Switzerland shares traits with the U.K. in its substantial relevancy in traditional financial markets and similarities with Singapore in its crypto-friendly regulation and low-tax environment. Further similarities with Singapore are present in the Swiss-registered company employment, with a global employee base across multiple jurisdictions. Favorable regulations have long attracted crypto companies to Switzerland, particularly the Crypto Valley near Zug. In recent years, Lugano has also positioned itself as a crypto-friendly city after deciding to make BTC and USDT legal tender. In essence, Switzerland benefits from open, friendly policies towards crypto, attracting venues and capital to the country, similar to how Switzerland has positioned itself in traditional financial markets.

Figure 13 – Swiss HQ Crypto Companies – Employees’ Country of Residency



Source: K33 Research

### 5.3 U.S. and Canada dominate in North America

North America

K33 RESEARCH

Crypto employment

60,692 (32% of global crypto employment)

Major hubs

1.	2.	3.
No. employed in crypto		
53,600	5,000	500

Top employers

Coinbase	Kraken	Binance	Gemini
4,000	1,620	1,200	760

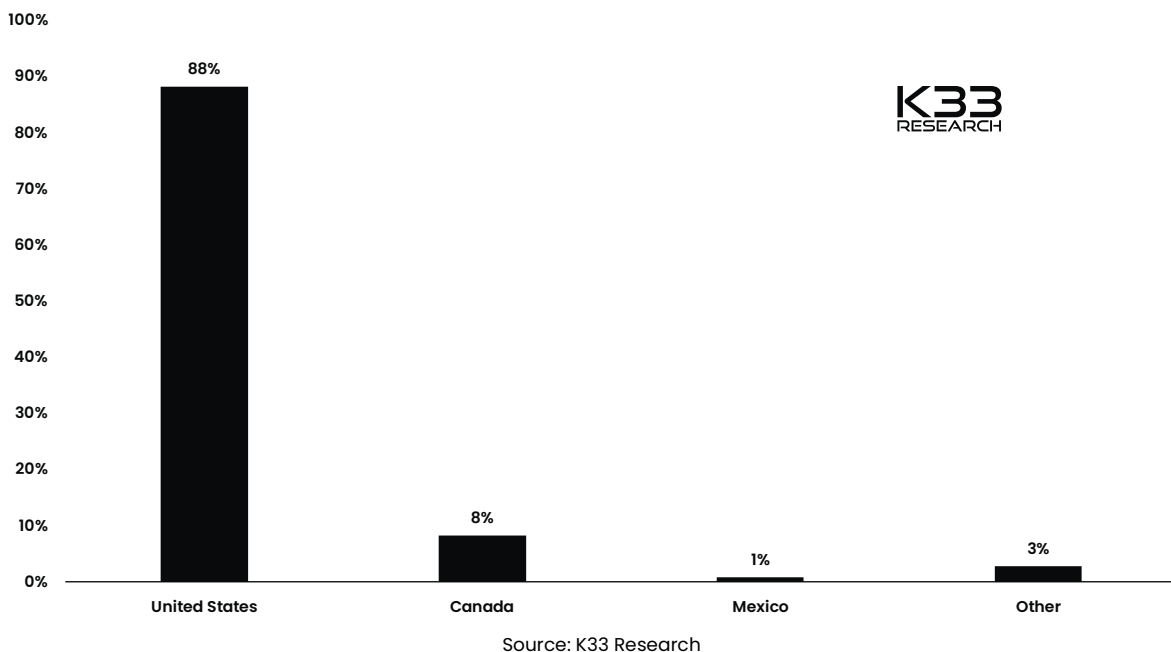
Northern American crypto employment is strongly concentrated in the U.S., by far the largest country of origin for full-time employed crypto workers globally. In comparison, Canada and Mexico are dwarfed, but at a global scale, Canada remains significant as the eight largest crypto employment contributor globally.



The United States is the home of several of the most important crypto projects, exchanges, miners, and financial institutions in the world. Despite strict regulations relating to derivatives trading, the U.S. crypto labor market is a hot commodity, both domestically, but also abroad. Solana, Kraken, a majority of the public bitcoin miners, Coinbase, among others, all originating from the U.S. Nonetheless, in particular, since the fall of FTX, the SEC and U.S. government has seen a change of pace, targeting U.S. crypto institutions such as Paxos, Kraken, Gemini, and Coinbase, in addition to Binance and other international venues. This has caused Coinbase to obtain a Bermuda license to offer crypto perps for eligible traders, with potential long-term implications of ostracizing the industry from the U.S. towards cleaner and friendly regulatory environments.

7 out of the 20 largest crypto employers are based in the U.S., and U.S. employment is strongly present in all major global crypto companies. Among U.S.-domiciled crypto companies, on average, 77% of the employees are based in the U.S. Additionally, the United States tends to be the largest or second largest origin of employees in a majority of the global crypto companies domiciled in other jurisdictions.

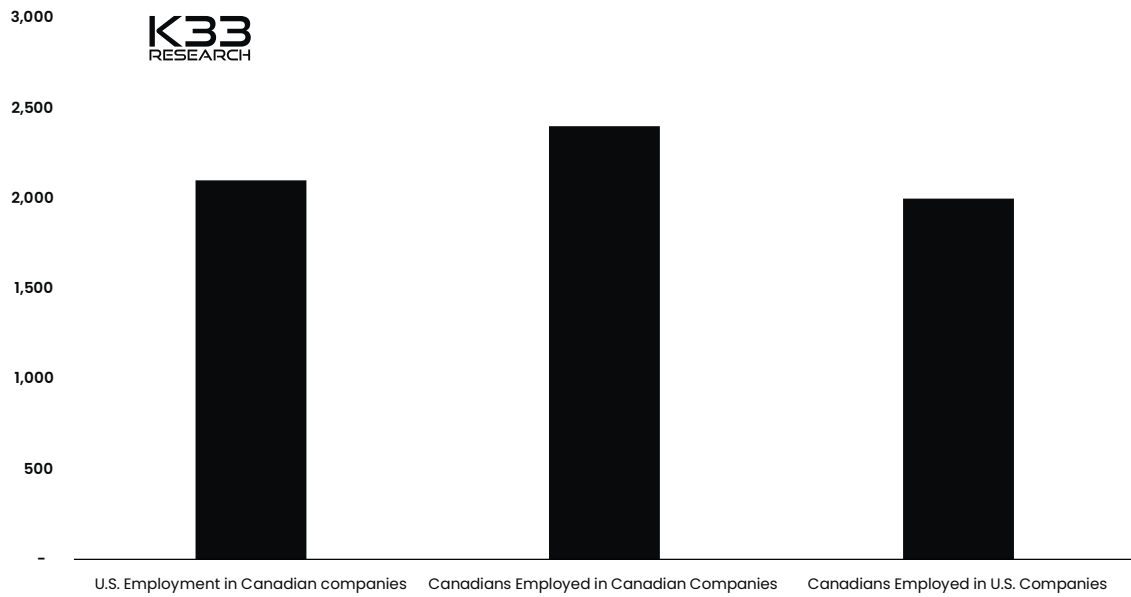
**Figure 14 – North American Crypto Employees by Country of Residency**



Canada is the eight-largest country globally measured by crypto employment. Canada has been ahead of the U.S. in terms of approving spot-based ETFs in the country, leading to enhanced institutional flows but also attracting U.S. employment.

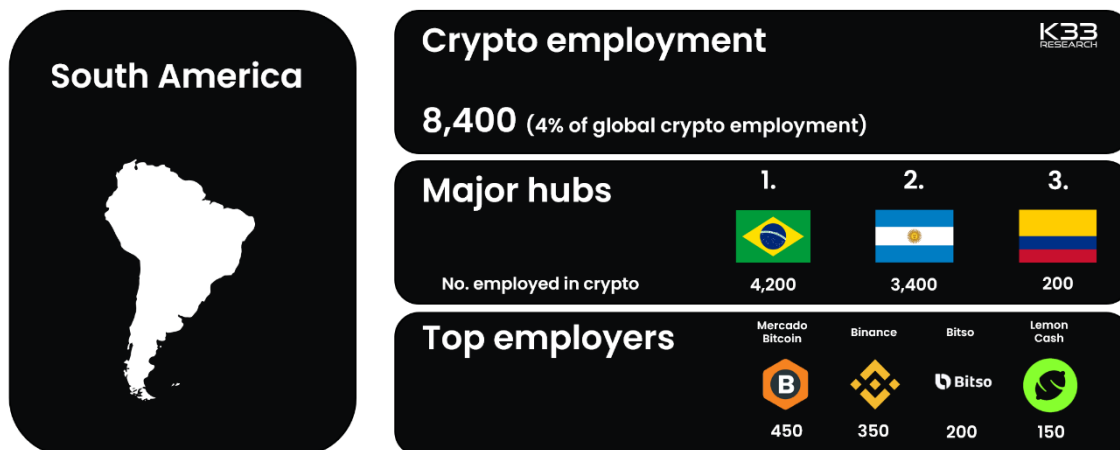
Cross-border employment between the U.S. and Canada is a highly symbiotic tendency, with significant Canadian employment numbers in U.S.-domiciled entities and vice versa. There are almost more Canadian employees in U.S.-registered companies than there are Canadian employees in Canada-registered companies, while remarkably, U.S. employment in Canadian companies nearly aligns with the Canadian employment in Canadian crypto companies.

**Figure 15 – U.S. Canadian Crypto Labor Symbiosis**



Source: K33 Research

## 5.4 Crypto employment in South America correlates with economy size



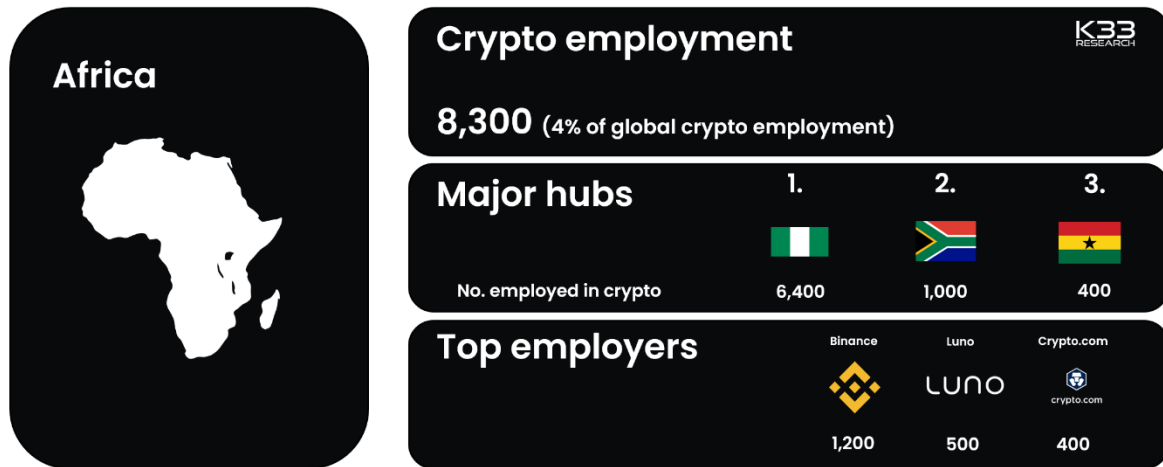
The benefits of crypto related to financial inclusion, as a safe haven from financial instability and as a means of more efficient remittances, have often been touted as meaningful catalysts for the broad adoption of cryptocurrencies in South America. Still, while multiple countries in South America tend to top crypto adoption metrics, the industry employs relatively few Southern Americans.

Brazil is the largest crypto employer in South America and has by far the most advanced financial infrastructure in the region, which has led banks and funds to approach crypto via crypto ETFs, crypto custody, and even stablecoins, with BTG Pactual launching its own dollar-backed stablecoin. Brazil also hosts multiple large domestic exchanges, with Mercado Bitcoin being the major domestic exchange.

Argentine crypto adoption is reportedly among the largest globally (23%, per GWI). The country has long been ravaged by inflation and financial instability, incentivizing investments abroad. While system vulnerabilities have incentivized exposure to crypto, primarily BTC and stablecoins, the instability of Argentina's financial system and the distrust in local banks might have reduced the country's ability to utilize the demand to establish major crypto ventures. A significant portion of Argentine trading of crypto originates abroad, and similarly, a substantial share of Argentinian crypto employment is affiliated with remote employment in global crypto behemoths.

In general, South American crypto companies are more heavily skewed towards payment processing, aiming at creating more efficient payment rails for cross-border transactions.

## 5.5 Nigeria is the crypto powerhouse of Africa



In Africa, crypto employment is strongly concentrated to Nigeria, with Nigerian crypto employment representing 77% of the total African crypto employment. South Africa comes in second, with Luno employment significantly contributing to South African crypto employment.

Africa has been flagged as a promising continent for crypto adoption for reasons similar to those mentioned in the South America section. Africa also suffers from similar structural issues as those mentioned in the same section.

Nonetheless, Nigeria has the seventh largest crypto employee base globally, mainly due to substantial employment in major international crypto exchanges such as Binance and Crypto.com, as these exchanges target the African continent through Nigeria as a promising regional hub.

Binance is figuring among the top 3 employers across all continents and has targeted the African continent through sponsorship agreements with the African Cup of Nations in football. Similar sponsorship strategies are displayed in South America, where the exchange has secured the naming rights of the Argentinian premier football division, currently named Torneo Binance. This strategy differs from most other crypto exchange marketing strategies, where the marketing budget primarily targets major U.S. and global sports. This suggests that Binance is aiming to secure its dominance in less developed economies, which could lead competitors to follow in the future, leading to increased employment in these continents.

## Appendix

The employment numbers in this report are estimated based on a sequential approach.

### **Step 1: Create a gross list of potential crypto companies and projects**

Based on various sources, we have put together a gross list of more than 20,000 companies or projects that are alleged to be crypto companies based on the list they were found in. Even though the companies are tagged as crypto companies somewhere, many of the companies are **not crypto companies**.

### **Step 2: Clean the list in step 1 to only consist of crypto companies/projects**

To clean the gross list, we have done many different operations in iterative order. We have performed an AI-assisted web search to determine whether a company/project is a crypto company project. By doing manual oversight and bettering the queries for the AI-assisted web searches, we have reduced the gross list to about 10,000 active crypto companies/projects. Using the same process of AI-assisted web searches and manual work, we have also categorized the crypto companies into different company/project types.

### **Step 3: Map the largest crypto companies' employment manually**

To do this, we have used many different sources, including The Block's excellent industry overights, LinkedIn searches, and more. About 80,000 of the close to 190,000 crypto employees we find are through this step.

### **Step 4: Estimate employment in each of the remaining crypto companies/projects**

The main components in these estimates are:

- Company databases such as crunchbase.com
- AI-assisted web searches
- Manual mappings to boost the effectiveness of the other methods.

By doing this, we estimate that there are another 80,000 employees in the companies not mapped in step 3 in our list of 10,000 crypto companies.

### **Step 5: Adjust for undercoverage we know is there**

We have checked our method's results compared to areas where we have excellent direct knowledge and have found that there always is a tail of smaller companies and departments in bigger companies we don't cover. The undercoverage rate

varies in different areas based on our incomplete research. By generalizing these findings, we estimate that there are another 30,000 people working in crypto.

**About geographic distribution:**

Many crypto companies are international in their employment, and simply attributing all employees to the company's country of registration would not give the correct impression of where crypto workers live.

Many of our direct mappings of companies have employees distributed on country of residence. We have also used LinkedIn searches and similar to estimate the country distribution of employees for a large number of companies. We generalize the country distributions to also apply for companies where employee country distribution is not explicitly mapped. In the cases where we have to little information to generalize, we map all employees to the country of registration.

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