



WHITEPAPER v1.0
JULY 2018



TABLE OF CONTENTS

01	MOTIVATION	03
02	MARKET OPPORTUNITY	05
	02.1 EXPONENTIAL GROWTH OF CRYPTO ADOPTION	05
	02.2 IMPERFECT MARKETPLACE	06
03	SOLUTION	10
04	SINDRIC GOALS	11
05	SINDRIC PLATFORM	13
06	TECHNICAL INDICATORS	14
	06.1 BACK-TESTING FEATURE	14
	06.2 CRYPTO SCREENER	15
	06.3 FORECASTER	16
	06.4 SOCIAL MEDIA PLATFORMS	17
	06.5 FUNDAMENTAL INDICATORS	17
	06.6 THE SINDRIC TOKEN - UTILITY	18
	06.7 THE SINDRIC TOKEN - TECHNOLOGY	18
	06.8 THE SINDRIC TOKEN - STAKING & SPENDING	19
07	ROADMAP	20
	07.1 DEVELOPMENT	20
	07.2 MILESTONES	21
08	SOURCES	22

01 MOTIVATION

While digital currencies have long been a part of closed systems, such as online games and messaging systems,^{1,2} it was the emergence of complementary platforms such as token exchanges that have allowed cryptocurrencies to really flourish. Hundreds of cryptos now join the market every year and there is no set trading time. Market fluctuations are never black and white. All these factors make it a constant struggle for investors to keep up with where the market is—not only on a day-to-day basis, but also on an hourly or minute basis.

The nascent and ever-evolving terrain of the crypto space has made it difficult for traditional investors to wrap their brains around the space. We've seen claims from very astute investors that cryptocurrency prices are not based on economic fundamentals³ and that crypto assets hold no intrinsic value.⁴ Others have equated the crypto space to a Ponzi scheme⁵ or referred to certain crypto assets as rat poison.⁶

As individuals personally, professionally, financially, intellectually and otherwise invested in the potential of the blockchain, we all realize that we need more people to better understand the space and its potential. And, at heart, we can derive three lessons from these types of criticisms.

First, these investors do not understand what developments and information are meaningful to the ecosystem, nor do they monitor the sources of information in the space. Research shows that traditional financial analysts (as with most managers) have finite bandwidth as to what they monitor⁷ and use various mental filters to comb through information.⁸ We should not be surprised that critics look at the blockchain and crypto space with confusion and incorrect frames of reference. They simply do not know to what to pay attention to. . .and why should they as newbies to the space.



Second, the idiosyncrasies of the crypto market demand both new and traditional metrics. As the internet moved from Web 1.0 to Web 2.0, Wall Street scoffed at ‘eyeballs’ as a measure of a firm’s customer base. Despite this initial skepticism from traditional investors, CPM (the cost per thousand impressions) has grown to become a primary unit of digital marketing.⁹ The value of digital marketing firms today is directly tied to measures that were once ridiculed by traditional investors.¹⁰

Third, these traditional investors hold fiduciary responsibility for trillions of dollars and that tsunami of money holds the potential to lift a lot of boats. The evidence is already mounting that there is a compelling argument from a financial return perspective to incorporating crypto assets into institutional portfolios.¹¹ There are signs that some savvy people now ‘get’ that crypto can substantially increase portfolio returns. George Soros’ fund recently internally approved the trading of cryptos and Goldman Sachs is also considering offering a Bitcoin-related investment product.¹² The sooner the majority of traditional other investors become comfortable with how traditional and non-traditional measures apply to the crypto space, the sooner those investors will begin supporting the space with their financial force.

Sindric alleviates these pain points by creating a platform for investors to monitor real-time data on the crypto asset market, providing a suite of tools and resources to help usher in a new wave of capital as adoption increases. We provide all the tools and indicators professional traders and investors are used to using in the stock market. Also, we are creating Artificial Intelligence fueled indicators, Social Media sentiment analysis, more Fundamental Analysis (FA) and Technical Analysis (TA) resources. Users will be able to perform their due diligence on crypto assets, use overlays and indicators on price charts, and eventually execute trades: trades they ideate on their own, or ones suggested by our engines.

Sindric aims to be the only platform a crypto trader or investor will ever need—the intelligent investors’ toolkit for a digital age.

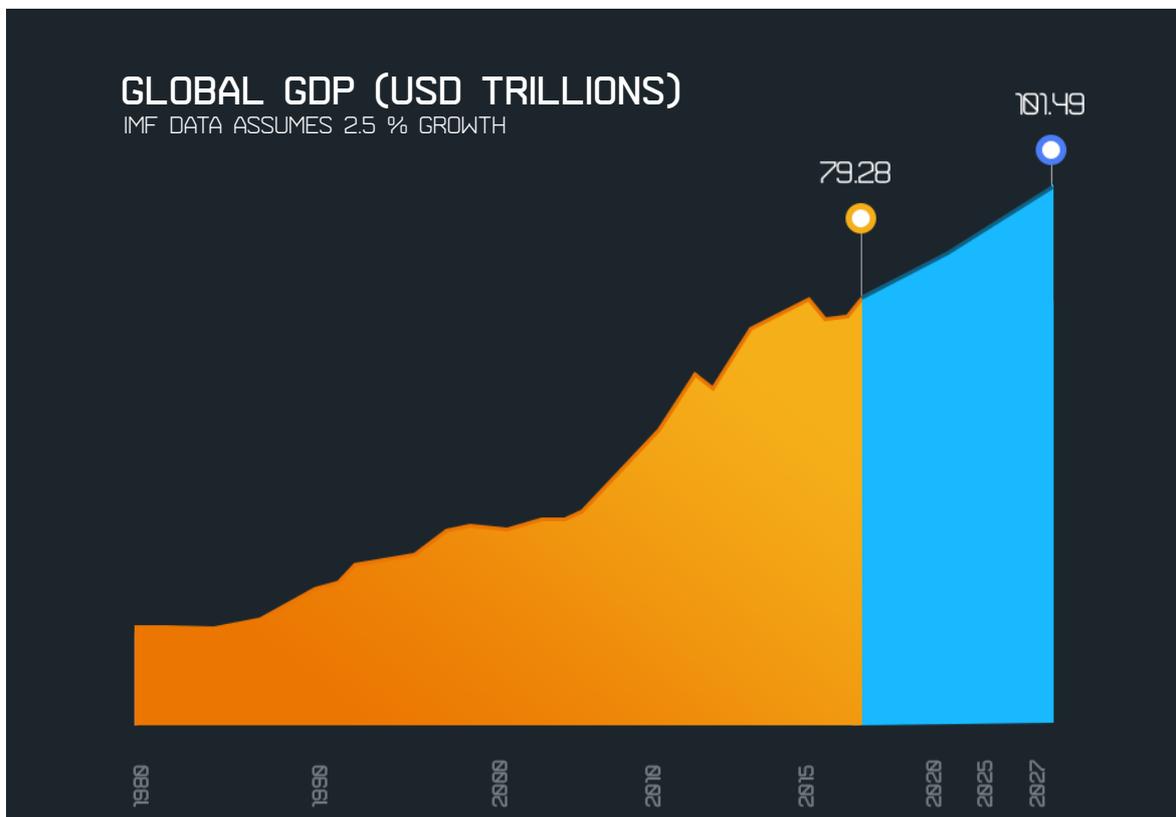


02 MARKET OPPORTUNITY

02.1 - EXPONENTIAL GROWTH OF CRYPTO ADOPTION

Cryptocurrency can be defined as “a medium of exchange that is created and managed through cryptography to secure transactions, regulate the formation of new units, increase the supply, and prevent fraud. Unlike cash, these currencies are purely digital and used in online transactions.”¹³ Therefore, the market potential for the Sindric platform consists of millions of users, each of them making hundreds of transactions per year.

In September 2015, nearly 58% of the 800 executive and expert respondents to the 2015 Technological Tipping Points survey of the World Economic Forum’s Global Agenda Council on the Future of Software & Society¹⁴ believed that 10% of global gross GDP will be stored on blockchain technology by 2027. That’s the potential of \$10.149 trillion in value on the blockchain in less than a decade.



While the cryptocurrency space saw record-breaking growth rates in 2017 in terms of number of market participants and total market capitalization, the overall value of the cryptocurrencies was only \$700 billion, with the \$1 trillion mark expected to be reached by the end of 2018.

A brief glance at the overall trading volume of all cryptocurrencies over time shows that trading volume is increasing, but still has a long way to go to reach the 2027 predictions.

It is estimated that there are between 2.9 million and 5.8 million active users; most of these users have on average two wallets.¹⁵ For the World Economic Forum's expert predictions to come true, many millions more need to be onboarded and become comfortable with the crypto space.

Sindric will play a crucial role in that onboarding.

02.2 - IMPERFECT MARKETPLACE

As the blockchain industry expands and the number and value of crypto assets increase, the market for crypto investing and speculation inevitably will grow. And despite that growth, one issue currently remains: there are too few data resources available to the various types of investors out there.

For individual investors (a.k.a. retail investors), some will want to purchase specific cryptos to support projects that they like. Others will want to purchase a portfolio of cryptos to hedge their exposure to any one crypto. In terms of risk profiles, some will seek to add a little crypto exposure to their existing portfolio of mostly stocks and bonds. Others will seek substantial exposure to cryptos to benefit from the growth of the market. Still, others will prefer to profit from the daily volatility. Each of these investor types has different needs and cannot rely on the same data resources to achieve their investment goals.

In contrast, institutional investors hold a unique fiduciary duty to 'Know Their Customer' and to handle the capital over which they hold custody in accordance with the needs of those customers and in accordance with various regulations, including the Employee Retirement Income Security Act of 1974 (ERISA).



According to the Investment Company Institute, the total worldwide assets invested in regulated open-end funds is \$40.4 trillion and the total value of retirement market assets just in the United States is \$25.3 trillion dollars.¹⁶ In the U.S., 31% of all U.S. corporate equity, 23% of U.S. municipal securities, 19% of global corporate bonds, and 13% of U.S. Treasury and government agency securities are held by U.S. registered investment firms. And as anyone active in the crypto space knows, at present, institutional investors do not yet represent that level of trading in the crypto markets. That will change. And they will need tools to be able to meet their responsibilities in high volumes.

Institutional investors often have external and internal limits on holdings and trades with which individuals need not concern themselves. SEC Rule 144 limits sales of certain securities; “during any three-month period [sales] cannot exceed the greater of 1% of the outstanding shares of the same class being sold, or if the class is listed on a stock exchange, the greater of 1% or the average reported weekly trading volume during the four weeks preceding the filing of a notice of sale.”¹⁷ And “Rule 10b-18 governs open market share repurchases by firms. It limits daily repurchases to 25% of the average daily trading volume for the security during the preceding four calendar weeks.”¹⁸ Mutual funds or retirement funds also often have internal limits set by their firms, such as positions of no more than a certain percentage (e.g., 20%) of the funds’ daily trading volume. These are unique needs of institutional investors that are not easily met with existing platforms.

Lack of transparency in the market makes it difficult for investors to gain the knowledge they need to invest successfully and in line with various constraints.

Sindric hopes to change that.

Even for people with experience in trading, with over 1,600 cryptocurrencies, it is difficult to research each potential coin and do a proper analysis. Valuable information is dispersed across many channels such as Facebook, Twitter, Telegram, YouTube, and Reddit. An average investor that is passively looking to diversify investments can spend weeks, if not months, before fully understanding the crypto economy. This creates a scenario wherein the beginner relies too much on third parties: ironic with a technology that purports to play a role in eliminating them.



We at Sindric believe that the measures developed today for crypto will become the 'de facto' standards of tomorrow, and we hope to be at the forefront of that transition. We believe that Sindric is the company to bridge the existing gap, offering compelling advantages such as transparency, premium indicators, proprietary trading strategies, and cost efficiency. The platform's main goal is to be the only resource a trader or investor needs to succeed. Further, a more secure and trustworthy ecosystem will instill confidence and bring new players into the market, including a lot of new capital that will help various projects to deliver on their goals and for investors to benefit from the increased liquidity.

Sindric will compare cryptocurrency valuations and trades in real time. The platform also provides a social media analysis tool, which will provide the ability for investors to evaluate the sentiment toward various cryptos; social media sentiment can be used as a leading indicator to catch wind of potential drivers of price movements before most of the market makes sense of the signal.

Measuring a cryptocurrency on this basis holds the potential to be a better measure of a project's promise, a factor that is of prime interest to investors in crypto assets. Therefore, the Sindric knowledge database will include an assortment of information about blockchain technologies, cryptocurrencies, and investments in cryptocurrency markets.

The technology behind the Sindric platform analyzes each currency for historical price data and searches for patterns, showing possible future price points and the potential profits based on current prices and rates of change.

Sindric aims to encourage self-governance in the tokenized economy and unite exchanges around the world. We are creating the tools needed to create a new financial paradigm.

The Sindric platform seeks to enhance and complement the cryptocurrency ecosystem through a comprehensive toolset and easy-to-use platform, with a clean interface visually representing data findings, gathered from a range of metrics.

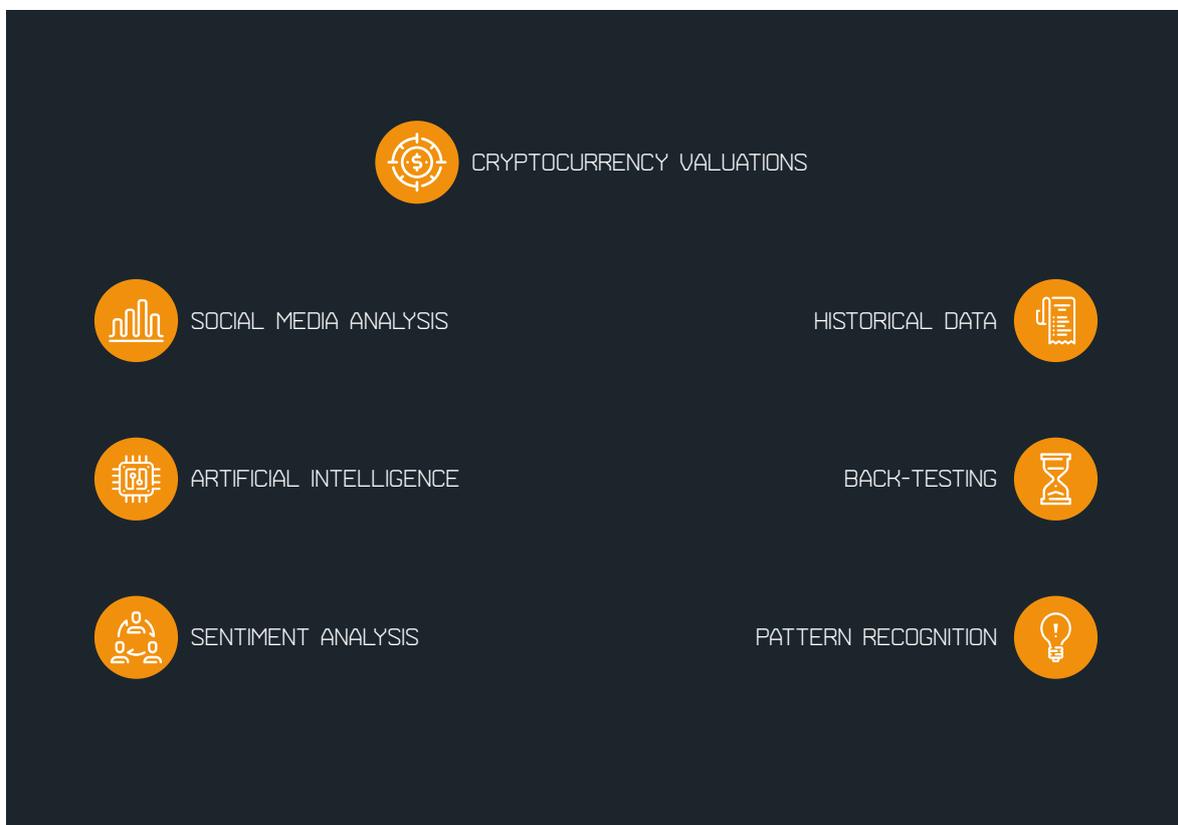


Our goal is to lower the barriers of entry to crypto investment markets by providing tools and services that make interacting, handling and trading crypto assets accessible to everyone.

Also, to ensure users can benefit from developments in the cryptocurrency market while mitigating risks arising from cryptocurrency ownership, transfer, and exchange, our services will be tailored for both inexperienced and experienced traders.

We plan to use the most proven and scalable open source technologies and constantly monitor alternative technical advancements. Thus, our team hopes to contribute to the entire cryptocurrency space and spread more general awareness of the potency of blockchain in solving problems and cryptocurrencies in incentivizing those solutions.

Sindric will provide significant advantages to investors and develop a fair and transparent service that will make it easy for traders to invest in cryptocurrencies. There will be a clear display of relevant market data and relevant gas fees.



03 SOLUTION

Sindric addresses gaps in the crypto asset trading space by focusing on two key pillars when constructing our platform:

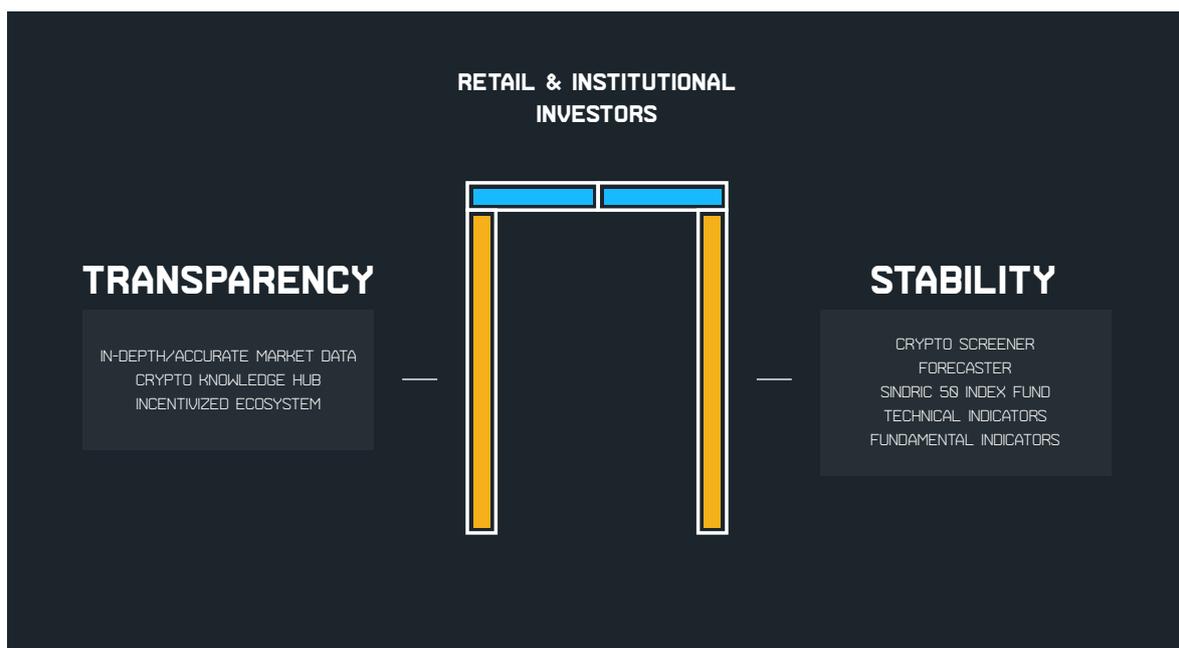
TRANSPARENCY

Sindric aims to address the lack of transparency in the market through our robust informational offerings, giving both high-level and in-depth views into the crypto asset market. To help cut through the noise, we also have developed, and are continuing to develop, tools and indicators to help traders succeed.

STABILITY

Sindric will help traders through fundamental analysis on crypto tokens performed with different tools like back-testing, crypto screener, forecaster, technical indicators, social media platforms and fundamental indicators (such as block time, difficulty, block count, hash time and block size).

We outline in detail our proposition below and look forward to welcoming you as a token holder.



04 SINDRIC GOALS

The end goal of Sindric is to be the most advanced crypto market data analytics platform in the world. Sindric believes that access to data feeds, relevant content, real-time trackers of news events, catalysts and sophisticated investment research tools are essential to navigate the always volatile cryptocurrency markets.

Sindric will cater to a wide range of clients who have diverse needs for crypto-related information including:

CRYPTO TRADERS
WEALTH MANAGERS
HEDGE FUND MANAGERS
RETIREMENT FUND MANAGERS
DATA VENDING CHANNELS

The Sindric crypto content platform will feature:

BACK-TESTING
CRYPTO SCREENER
FORECASTER
TECHNICAL INDICATORS
SOCIAL MEDIA PLATFORMS
FUNDAMENTAL INDICATORS

Overall, Sindric envisions a world where retail and institutional cryptocurrency traders have real-time access to valuable, market-moving information aggregated to a single, easy-to-use, data analytics platform. Sindric will strive to help investors tackle all their crypto challenges by being the one-stop shop that any trader can use to garner insights into the entirety of the crypto world.



Institutional investors are starting to show more and more interest in the crypto asset market. The CFA Institute has just announced that it will be adding topics on cryptocurrencies and blockchain to its Level I and II exam curricula in 2019.¹⁹ And the Federal Reserve Bank of St. Louis has added several cryptocurrencies to its data tracking service FRED.²⁰ Cryptocurrency trading for institutional investors like hedge funds and pension funds is possible in Germany, thanks to a partnership between the German securities trading bank, VPE WertpapierhandelsBank AG, and Berlin fintech company solarisBank.²¹

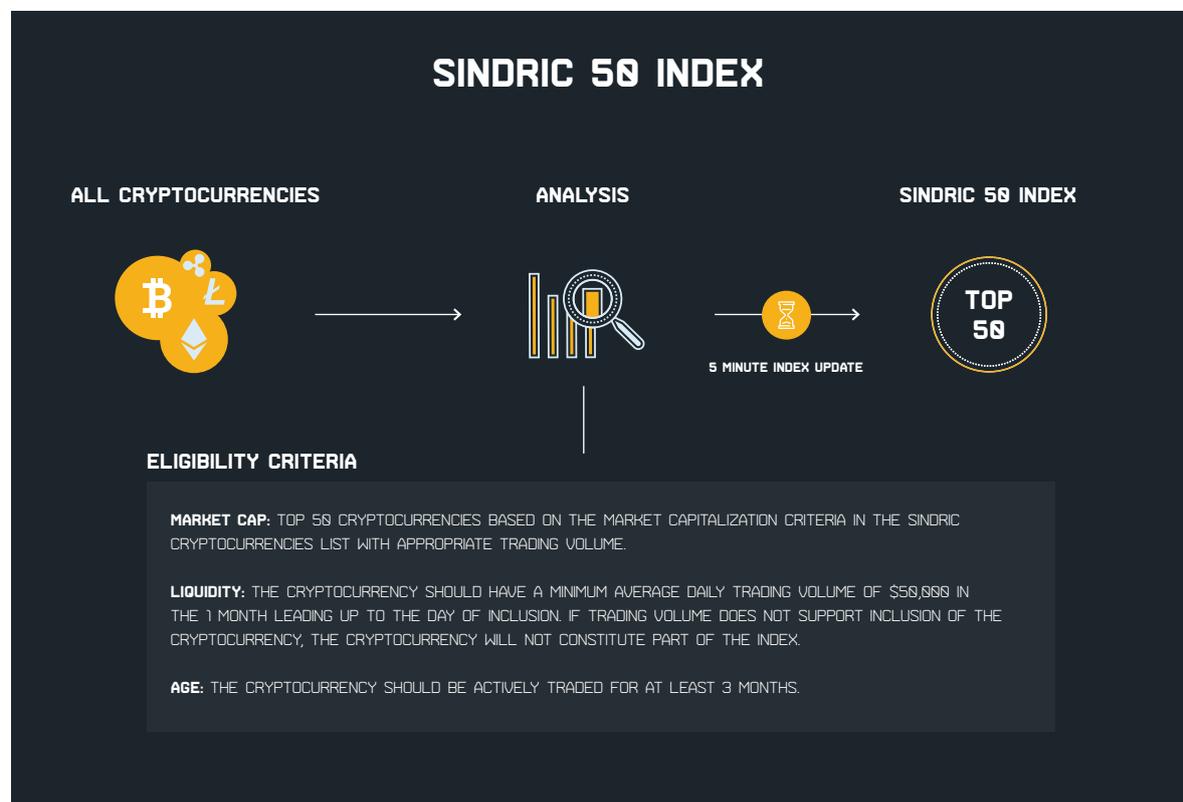
Still, in other regions, barriers are still relatively high. By introducing institutional-grade indicators and information, we will ease the process of market entry for these global investors.



05 SINDRIC PLATFORM

Sindric is the first platform to include systemic evaluation of cryptocurrency value using fundamental and technical factors to achieve real-time analysis. Sindric provides market data, price, and content to crypto enthusiasts. This provides users with advanced analytics via artificial intelligence tools and machine learning algorithms which gather data on regulatory actions and the overall crypto economy.

In addition, Sindric will provide both market and fundamental analysis for cryptocurrencies by leveraging data. These statistics help traders understand the adoption levels of miners and users' interest in the project. The Sindric 50 Index is a market-capitalization weighted index that provides the direction of the overall crypto market to the user. Sindric demonstrates trending coins and highlights all-time highs and all-time lows, which are widely used as traditional technical indicators in financial markets. Sindric will provide more analytics to clients to help them make crypto decisions.



06 TECHNICAL INDICATORS

Sindric will provide several traditional technical indicators that traders can use to their advantage and historical intraday cryptocurrency data from various top global exchanges such as Coinbase, GDAX, Kraken, Bittrex, and Poloniex.

The historical data will include the complete set of data per exchange per token. Sindric will provide volatility and correlation dynamics for financial modeling in addition to good quality tick data. Volatility will be measured every 5 minutes. The traditional technical indicators mentioned below will be provided for every coin within Sindric.

SIMPLE MOVING AVERAGES
EXPONENTIAL MOVING AVERAGES
RELATIVE STRENGTH INDEX
MOVING AVERAGE CONVERGENCE DIVERGENCE
AVERAGE TRUE RANGE
BOLLINGER BANDS

06.1 - BACK-TESTING FEATURE

The Sindric back-testing feature will allow traders to test their trading strategies using historical data. Traders will have the opportunity to view their strategies before physically making those trades. With back-testing, the trade will be simulated using real data from the past. This is a great opportunity for traders to understand the different levels of profitability that can be gained from their strategy. In addition, how much risk the strategy will hold can also be obtained through this exercise.

The Sindric back-testing functionality will allow users to choose from many technical indicators. Based on the indicators chosen, the necessary parameters can be set. Sindric will display results based on those technical indicators. Users also will have the ability to choose time-exit and stop-loss as conditions during back-testing. Time-exit will stop the simulation at the given time. Stop-loss will end the process when a particular gain/loss has been reached.



Since the crypto world operates at on a 24x7 schedule, there is no specific closing or opening of the market as there is in traditional market trading. Sindric will take the price at 12:00 am EST as the closing price of the coin for the record-keeping day. When using the back-testing functionality, Sindric assumes that the trader executes at the Sindric closing price. The one-way, default transaction cost will be 0.5% and can be adjusted by the user.

Once the user finishes a back-test, traditionally the best way to evaluate the results is to look at the Calmar and Sharpe ratios. The Calmar ratio is the comparison of the average annualized rate of return and maximum drawdown risk. The Sharpe ratio is the risk-adjusted returns, which will allow a user accustomed to these measures to understand the performance of his/her strategy from its back-testing result. Non-traditional measures will also be developed using the same back-testing strategies, then provided to users in our firewalled services.

Back-testing is a great feature that allows traders to understand the strengths and weaknesses of their strategy before performing it on the real market.

06.2 - CRYPTO SCREENER

Currently, there is no comprehensive cryptocurrency screener available within the crypto market. Sindric will fulfill that need by creating a screener for all coins on the platform. The crypto screener will give users an insight into the top coins by sector. This is important because institutional traders often have limits on how much exposure they can have to particular sectors, and retail investors often want a diversified portfolio across multiple sectors. At the same time, this functionality will allow institutional investors to construct sector-specific funds of crypto assets, or to fold certain cryptos into existing sector-specific funds. Sindric's sector rankings will be derived using all technical and fundamental indicators.



In the screener, traders will have the opportunity to view the top coins for various sectors and use the rankings at their discretion. Sindric will allow traders to sort based on preference, being able to switch the sorting basis and add-in details. The basket of ranked coins can help traders learn more before they invest. Some of these items will include (but are not limited to):

PRICE
TOP GAINERS
TOP LOSERS
TRENDING
INDUSTRY
SINDRIC 50 INDEX
NUMBER OF USERS
NUMBER OF CONTRIBUTORS
NUMBER OF DEVELOPMENT COMMITS
NUMBER OF MINERS/HARVESTERS

This crypto screen is another tool that Sindric's users will be able to utilize in order to make the most informed decision before performing any trades.

06.3 - FORECASTER

The Sindric forecaster and pattern finding feature will help traders in identifying risk-reward trading opportunities. Sindric will use historical data for the analysis of cryptocurrencies and apply machine learning algorithms to obtain prediction models by finding patterns in existing data.

Sindric will test algorithms focused on predicting changes in prices of cryptocurrencies. Cryptocurrency markets are very new, thus factors that drive prices are not well-known. For this reason, Sindric algorithms will use artificial intelligence to combine quantitative and non-quantitative data to come to a stable and reliable prediction. Once discovered, these non-traditional measures will be given independent titles and made available to clients for use in their own trading.



06.4 - SOCIAL MEDIA PLATFORMS

Social media is a huge part of life today. Twitter has become a popular platform for crypto traders and enthusiasts to get their latest news about the events unfolding in the crypto world. Sindric will bring curated Twitter content from crypto experts to platform users. Tweets from crypto gurus with well-established trading records will be available for our clients. Sindric will analyze cryptocurrency social media and market trends, and provide sentiment analysis (i.e., a measure of positive/negative affect regarding cryptocurrencies based on tweets) to Sindric users.

To understand how this tool might be used, an investor might intuit the popularity of a crypto from the number of mentions it receives on Twitter. For others, a change in the number of tweets and mentions might act as an indicator of how the crypto might perform. Beyond those signals, because Twitter is one of the primary forms of crypto communication, many formal announcements are made on the platform. Reactions to these different pieces of information could lead to either positive or negative changes in a particular crypto's price. Sindric will provide these data, which might just change a user's outlook on what trades to perform.

Sindric will use still other media platforms to gather analytics as well. Google Trends will be available for all cryptos. Interest by region and interest over time can both be derived using the Google Trends platform. Also, hashtags on Instagram and Facebook will be calculated, similar to that of Twitter. Social media platforms can provide information into the popularity of, and sentiment toward, certain cryptos. That information can be helpful when making crypto trades.

06.5 - FUNDAMENTAL INDICATORS

Sindric will provide our clients with several fundamental indicators that are non-traditional for investors more comfortable with equity markets than crypto markets. As those familiar with the crypto space understand, these indicators illustrate some underlying forces that affect the well-being—and thus the prospects—of individual cryptocurrencies and their distributed networks.



The following fundamental indicators for each crypto will give traders an intuitive understanding of the health of the cryptos' networks.

BLOCK TIME
DIFFICULTY
BLOCK COUNT
HASH RATE
BLOCK SIZE

06.6 - THE SINDRIC TOKEN - UTILITY

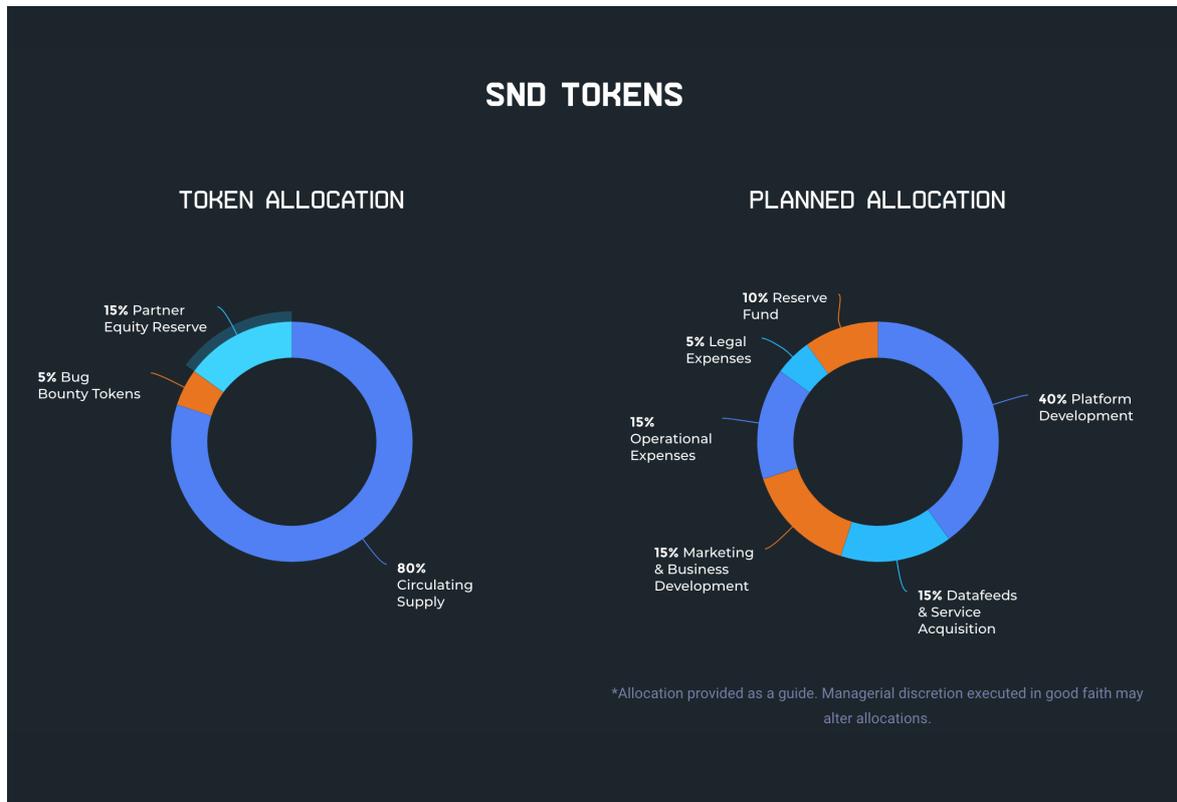
As a global analytics crypto platform, Sindric wants to focus its time and resources on delivering the best quality metrics and algorithms, not the daily value of fiat currencies from our worldwide user base. Thus, we will rely on the robust ecosystem of crypto exchanges to allow users around the world to access our platform quickly.

While a free tier of basic functionality (including prices and market trends) will be provided at no cost to all users, other advanced data analytics services and capabilities (such as real-time reporting) will require a fee to access, payable in Sindric tokens. Users will have access to customized activity statements and will be able to view detailed information about their account activity including positions, cash balances, transactions, and more.

06.7 - THE SINDRIC TOKEN - TECHNOLOGY

The Sindric token [SND] is an ERC20 token issued on the decentralized Ethereum blockchain (<https://www.ethereum.org/>). A safe and publicly auditable smart contract will handle the exchange of ETH (Ether) and BTC (Bitcoin) for Sindric tokens during the token generation phase. A total of 1 billion Sindric tokens will be issued, with 80% allocated to building out the platform, 5% to the bounty campaign and the remaining 15% to the team and advisory board. To nurture trust in the platform, tokens provided to the founders and advisors will have an 18-month vesting period before they could be sold to others to access the platform.





06.8 - THE SINDRIC TOKEN - STAKING & SPENDING

The Sindric token [SND] is intended to serve as a subscription fee to access the most exclusive features of the Sindric platform, including various levels of data feeds, traditional and non-traditional metrics and other specialized content.

The Sindric token may be both staked and spent on the platform. When Sindric tokens are staked, the token holder will be provided access to basic services for free. When Sindric tokens are spent, however, the expenditure acts to purchase Sindric's most exclusive data, metrics, and content.

Combined, these staking and spending mechanisms directly connect the utility of the Sindric tokens to the utility of premium data feeds and exclusive content produced by Sindric and affiliates. With data being the new oil of this generation,²² this provides a baseline support for the utility of the Sindric token across time.



07 ROADMAP

07.1 - DEVELOPMENT

The roadmap below does not show all the upcoming features planned, and we may add elements based upon feedback from our community.

In Q3 2017, our team launched its first project—CoinMarketWatch.com—which was aimed at addressing shortcomings with existing data availability to the crypto space. With that launch, we built out the main functionalities and applications, making them available online. Still, our interactions with both retail and institutional investors suggested that the needs of the market were much larger than we were delivering at CoinMarketWatch. With that feedback in hand, in Q1 2018, we completed our technical and volatility indicators (and launched their beta) and made the entire platform available via iPhone and Android apps. Given the scope of changes that we foresaw, we also felt that a fully new platform and rebranding were necessary.

Enter Sindric.

The SND token generation event, token pre-sale and sale will take place in Q3 2018. Token sale contributions will be used primarily to scale the team to develop more indicators and tools (see breakdown on p.19).

By the end of Q3/Q4 2018, Sindric will complete its data collection, including fundamental factors of all available blockchains with tokens, redesign the crypto analytics website and add technical analysis.

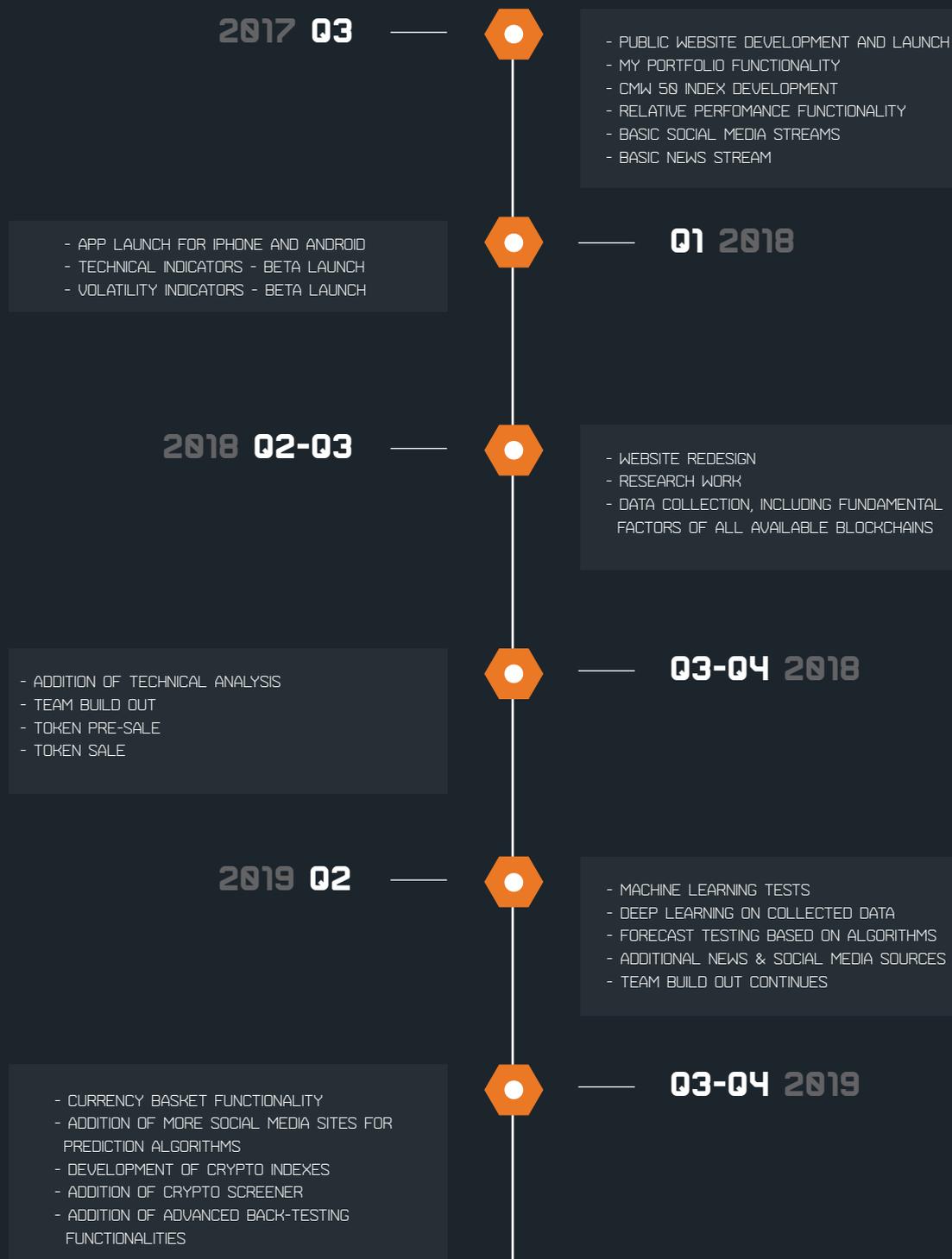
Furthermore, in Q1 of 2019, we will start our machine learning tests, deep learning on collected data, and forecast test based on our algorithms. We also plan to add new social media resources as well.

In summary, we have an ocean of work before us—development, website improvements, strategic partnerships, and onboarding both retail and institutional clients. We hope that you will join us in our attempt to lift everyone's boat.



07.2 - MILESTONES

Below is a representation of the milestones and dates we are looking to achieve. You can stay up to date with our milestones and achievements on our website and social media platforms.



08 SOURCES

- ¹ Scott, R. (2007) "The Business End of Playing Games," BBC News, Apr. 25: <https://web.archive.org/web/20080209213051/http://news.bbc.co.uk/1/hi/technology/6592335.stm>
- ² Fowler, G.A. & Qin, J. (2007) "QQ: China's New Coin of the Realm?" The Wall Street Journal, Mar. 30: <https://www.wsj.com/articles/SB117519670114653518>
- ³ Davis, J. (2018) "Vanguard: Bitcoin Presents a Quandary," ETF.com, May 21: <http://www.etf.com/sections/etf-industry-perspective/vanguard-bitcoin-presents-quandary>
- ⁴ Deveau, S. & Schatzker, E. (2017) "Bitcoin has 'No Intrinsic Value,' Brookfield CEO Flatt Says," Bloomberg, Dec. 11: <https://www.bloomberg.com/news/articles/2017-12-11/bitcoin-has-no-intrinsic-value-brookfield-ceo-flatt-says>
- ⁵ Ely, B. (2017) "Bitcoin is a Ponzi Scheme, and It will Collapse like One," The Hill, Dec. 11: <http://thehill.com/opinion/finance/364306-bitcoin-is-a-ponzi-scheme-and-it-will-collapse-like-one>
- ⁶ La Monica, P.R. (2018) "Warren Buffett says Bitcoin is 'Rat Poison'," CNN Money, May 8: <http://money.cnn.com/2018/05/07/investing/warren-buffett-bitcoin/index.html>
- ⁷ Zuckerman, E. W. (1999) "The Categorical Imperative: Securities Analysts and the Illegitimacy Discount," American Journal of Sociology, 104(5), 1398-1438.
- ⁸ Kahneman, D., Slovic, P. & Tversky, A. (1982) "Judgment under Uncertainty: Heuristics and Biases," Cambridge: Cambridge University Press.
- ⁹ Digital Shift Media (2018) "What Is CPM?": <https://digitalshiftmedia.com/marketing-term/cpm/>
- ¹⁰ IAB (2016) "The Programmatic Supply Chain: Deconstructing the Anatomy of a Programmatic CPM," IAB, March 2016.
- ¹¹ Hougan, M. (2018) "The Case for Crypto in an Institutional Portfolio," Bitwise, May: <https://s3.amazonaws.com/static.bitwiseinvestments.com/Research/Bitwise-The-Case-For-Crypto-In-An-Institutional-Portfolio.pdf>
- ¹² Paul V., Demos T. & Hoffman L. (2018) "Goldman Sachs Explores a New World: Trading Bitcoin," The Wall Street Journal, July 07: <https://www.wsj.com/articles/goldman-sachs-explores-a-new-world-trading-bitcoin-1506959128>
- ¹³ AMR (2018) "Cryptocurrency Market - Global Opportunity and Forecast, 2017-2023," Allied Market Research, July 07: <https://www.alliedmarketresearch.com/crypto-currency-market>
- ¹⁴ World Economic Forum (2015) "Deep Shift: Technology Tipping Points and Societal Impact," Global Agenda Council on the Future of Software & Society, World Economic Forum, Sept.: http://www3.weforum.org/docs/WEF_GAC15_Technological_Tipping_Points_report_2015.pdf
- ¹⁵ Helms, K. (2018) "How Big is Bitcoin?," News Bitcoin, July 10: <https://news.bitcoin.com/how-big-is-bitcoin/>
- ¹⁶ ICI (2017) "2017 Investment Company Factbook: A Review of Trends and Activities in the Investment Company Industry," Investment Company Institute; 57th Edition: https://www.ici.org/pdf/2017_factbook.pdf
- ¹⁷ SEC (2018) "Rule 144: Selling Restricted and Control Securities," Securities & Exchange Commission: <https://www.sec.gov/reportspubs/investor-publications/investorpubsrule144htm.html>
- ¹⁸ Anderson, A. M. & Dyl, E. A. (2005) "Market Structure and Trading Volume," The Journal of Financial Research, 28(1): 115-131
- ¹⁹ Patterson, M. & Tan, A (2018) "This Is Not a Passing Fad: CFA Exam Adds Crypto, Blockchain Topics," Bloomberg, July 16: <https://www.bloomberg.com/news/articles/2018-07-16/cfa-exam-adds-crypto-blockchain-topics-as-wall-street-dives-in>
- ²⁰ Federal Reserve Bank of St. Louis (2018) "FRED Adds Cryptocurrencies Series," June 19: <https://news.research.stlouisfed.org/2018/06/fred-adds-cryptocurrency-series/>
- ²¹ Chang, S. (2018) "Cryptocurrency Trading For Institutional Investors Now Available in Germany," BTC Manager, July 10: <https://btcmanager.com/cryptocurrency-trading-for-institutional-investors-now-available-in-germany/>
- ²² Leaders (2017) "The World's Most Valuable Resource is No Longer Oil, but Data," The Economist, May 6: <https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data>

