



TradeRiser

**A Decentralised Ecosystem &
Research Assistant For Answering
Trading Questions**

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Abstract

In world of trading and investing, the most powerful financial analytics is normally in the reserve of the few. TradeRiser is looking to disrupt this, by democratizing financial data analytics and making it available to the masses. Researching trading ideas and exploring the financial markets is a slow process. What is required is a single source of truth, that can provide instantaneous answers, to trading questions at a large scale. Specifically how the news and events affect asset prices around the world.

TradeRiser is an artificially intelligent Research Assistant, that can answer simple and complex trading questions. To train the artificial intelligence we will be leveraging the blockchain to build an incentivization system, which will be supported and fed by data from a large network of quantitative analysts and researchers. A token based economy called XTI will be introduced, to incentivize researchers, for their data and contributions to the platform.

Following this a second economy will be created, around a research marketplace, in which quant model developers and content producers will be able to reach consumers within the ecosystem. This participation of the community will help fulfill the goal of democratizing and simplifying financial data analytics.



Notes

For the purposes of this document Data Scientists, Quantitative Analyst Developers will be referred to as "**Financial Analysts**".

Equity Research Analyst, Forex Analyst, Portfolio Manager, Strategist and Financial Analyst will all be referred to as Analyst Research Producers "**Content Producers**".

Retail investors, Sophisticated investors, Financial Professionals and Financial Institutions will be referred to as "**Research Consumers**" and "**Users**".

TradeRiser is used to refer to the company and the Research Assistant product interchangeably.

The Problem



1. The Problem

1.1 Motivation - Simplifying financial data analytics

The growth of the world wide web led to innovations in search engine technology. This made the web more accessible and ubiquitous. However financial data analytics, has not enjoyed the same level of simplicity and accessibility seen in the world wide web. The growth of big data cannot be stopped, financial firms and individuals alike are in a race to find trading opportunities. This task will only get harder as new avenues of data are discovered, human beings will struggle to keep up. This disconnect in accessibility and ubiquity presents a huge opportunity, to systems that seek to democratize financial data analytics.

1.2 Disrupting Human Intensive Research

TradeRiser is building an AI based Research Assistant, that can answer both simple and complex trading questions. Financial professionals worldwide spend a lot of time and money in research trying to answer these trading questions. This kind of research is normally time consuming, inefficient, prone to information overload and requires a lot of manpower. These problems are further compounded with the advent of cryptocurrencies and financial professionals wanting to trade them, alongside traditional securities. The rapid explosion of cryptocurrencies has left many other technologies playing catch up, individual traders need an easy way to analysis these asset classes.

1.3 Fewer Ideas Are Tested

Current platforms rely on a great degree of technical know how to test trading ideas, and due to the barriers to entry fewer trading ideas are tested. Every day a portfolio manager has an investment idea and has to go to a quant to build the model. That's a bottleneck within most financial services firms, and as a result far fewer ideas are tested. The same is true of individual traders who want to test ideas but do not have access to sufficient tools.



1.4 Time-Consuming

Quantitative research can be an incredibly time consuming process, as it requires multiple steps in order to be completed, sometimes spanning across several days and hours. Other bottlenecks include the computational process due to the amount of data being analysed.

1.5 Inefficiency

The research process requires the data gathering, data cleaning and data analyses, and the final step being report creation. This is an incredibly an inefficient process.

1.6 Information Overload

With data being the new “oil” or a valuable resource, the job of analysts is all the more difficult in trying to process data. New avenues of data are constantly creeping up which can potentially be exploited in financial research, especially unstructured data.

1.7 News and Events - Unstructured Data

It is well known that the news and world events have impact on the financial markets, it is for this reason that tools such as the economic and earnings report calendars were created. These tools allow traders to keep up and monitor impactful events, however there is a whole basket of world events that have not be organised to be included in a calendar, that needs to be structured. As it stands traders struggle to keep up or hedge against data from sources such as twitter, cryptocurrency news, weather data and even satellite data. The whole universe of drug approvals, economic reports, monetary policy changes, and political events and their impact on nearly every kind of financial asset needs to be tamed and structured.



1.8 Solution

TradeRiser solves these problems through its Research Assistant that can immediately answer trading questions that a trader or investor has about the financial markets.

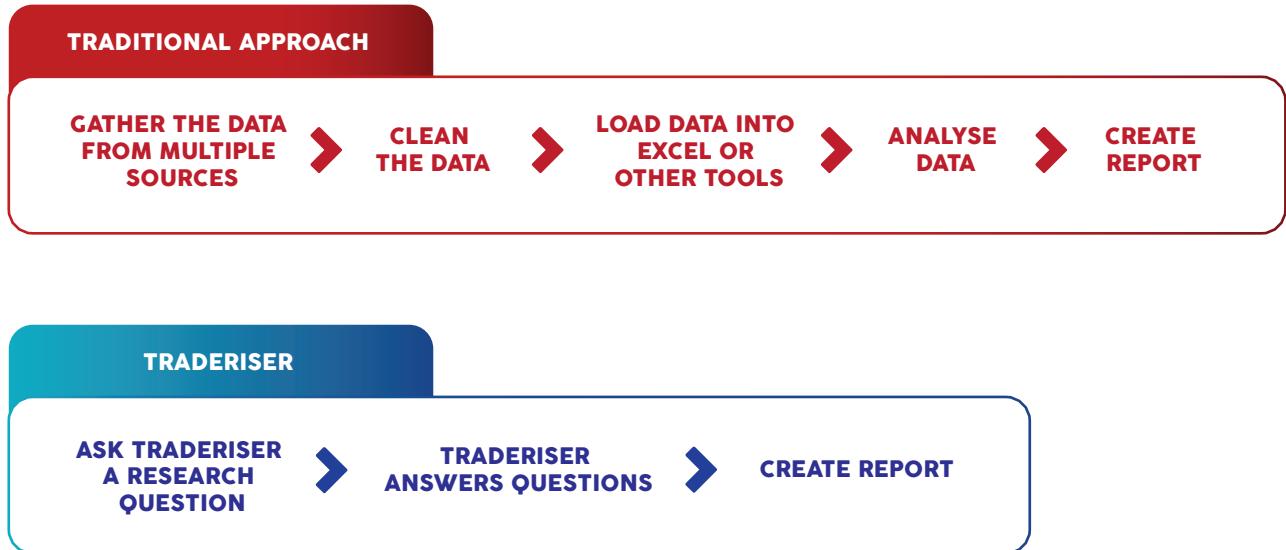
TradeRiser's token mechanism will keep track and compensate financial analysts for their datasets of questions, data validation, accuracy checking, suggestions and example report creation. The financial analysts can contribute in these ways to help train our machine learning Research Assistant, and be compensated accordingly. XTI is the underlying mechanism used to facilitate this ecosystem, and provides XTI holders with direct participation in advancing our "single source of truth" questioning and answering system.

Improving the Research Process



2. Improving the Research Process

TradeRiser focuses on making the research process quicker and an altogether better user experience. This is done by natural language querying.



Due to TradeRiser's functionality research consumers will be able to test more trading ideas. TradeRiser offers an alternative and complementary research platform that can work hand in hand with incumbent systems.

2.1 Opportunity - Phase One

Algorithmic trading and machine learning are proving to be disruptive trends in investment management. This kind of trading requires technical know how, and although the barriers to entry are gradually being removed it has still not been adopted in the mainstream. There is a strong use case for trading and research that is not algorithmically driven but based on natural language processing. Imagine instead of having to learn programming to develop complex strategies one could simply express it in natural human language.

Following the rising demand for cryptocurrencies and traditional assets, we believe there is a vast opportunity for: natural language driven research on crypto-assets and traditional assets.



2.2 Research Assistant - Use Cases Phase One

TradeRiser focuses on making the research process quicker and an altogether better user experience. This is done by natural language querying.

Use Case 1

James is an investor who invests in crypto-assets. Due to the sudden explosion of crypto-assets in recent years, technology vendors are still playing catch up. The correlation between unstructured data with these assets is yet to be harnessed. He turns to traditional tools to analyse the markets, but they are insufficient, his normal way of analysing these assets is by studying the charts. James wishes he could code so that he can use algorithmic means to research and invest but he can't. With several countries announcing bans on cryptocurrency, and public figures denouncing them, James wants to know "*on average how much do cryptocurrencies rise by 4 hours following a ban or a denouncement?*"

This will require James to carry out a lot of data gathering and running models within an Excel spreadsheet or worse purchase an application terminal to import and carry out the calculations.

Use Case 2

Ian runs his own crypto-asset hedge fund, he has list of investment ideas he wants to explore. He has a list of 20 questions he wants to investigate, however with limited resources and time, has no way of investigating these investment strategies quickly. Ian is not a developer nor does he want to outsource the work. The current state of play means he would have to rely on the one quantitative analyst he works with to go through these ideas which can take up to 2 weeks.

Ian wishes there was an application programming interface (API) he could call or submit his spreadsheet of questions to and get an answer back.



Use Case 3

Jackie is a crypto trader and she has noticed that the crypto markets all seem to have gone down and are trading in the negative. Jackie wants to maximize her profits in this seasons, she quickly wants to know “*which sector cryptocurrencies perform very well during a bear market?*”.

This kind of analytics requires Jackie to manually check the historic performance of all of the cryptocurrencies during bear market conditions and also create her own indices and crypto sector data. This is not easy to do and is incredibly time consuming.

Use Case 4

Thomas is a junior analyst at one of the large financial institutions and has a trading idea around abnormally warm summers in New York. So he has a question or a hypothesis around “*which kinds of companies are actually positively price sensitive in their share prices to these kinds of abnormally warm events?*”.

To achieve this he or she would have to export a data set from a data provider like Bloomberg into an Excel format, then standardize the data, clean the data, import it into R or Stata, evaluate the data then finally create a report. Even the named tools don't really provide maximum flexibility, the whole process requires too many steps and is time consuming.

Use Case 5

Peter is both a crypto and stock trader, he wants to know “*which cryptocurrencies are currently stable?*”, he also wants to know “*which stocks are likely to have trade high a week after the upcoming interest rate hike?*”.

All of these questions require a form of data science and analysis in order to establish an appropriate answer. Peter does not have the resources nor the time to research.



2.3 Research Marketplace - Use Cases Phase Two

Use Case 6

MiFID II, is an EU legislation that regulates firms who provide services to clients linked to '**financial instruments**' (shares, bonds, units in collective investment schemes and derivatives), and the venues where those instruments are traded.[1] [2]

The legislation requires firms providing these services to separate trading commissions from research costs ("unbundling").

Anna works as an analyst at a investment management firm in the UK, she receives nearly a 1000 emails a day with investment research – all unstructured and mostly irrelevant. She wishes she had a single platform, that allowed her to keep an audit trail of the research she had consumed from all the independent the researchers. She often does not know which research providers she has used and who to pay.



The Technology



3. The Technology

3.1 Blockchain

The network software known as the blockchain, store information across a network of computers making them not just decentralized but distributed. This means no central authority owns the system. This storage of information and the collaboration on the network is based on rules often known as a smart contract. The Ethereum network [3] is a platform that enables the creation of peer-to-peer applications based on smart contracts. This allows developers to create cryptographically enforceable relationships. Thus, XTI will use smart contracts to provide the network infrastructure it needs, namely incentivizing financial analysts, content producers, and research consumers to interact in our environment through the use of a token.

3.2 Natural Language Processing

Natural language processing (NLP) is defined as the automatic or semi-automatic processing of human language.[4] NLP is essentially multidisciplinary: it is closely related to linguistics. It also has links to research in cognitive science, psychology, philosophy and maths. Within computer science, it relates to formal language theory, compiler techniques, theorem proving, machine learning and human-computer interaction. Nowadays it's generally thought of as a huge part of AI and machine learning. Our Research Assistant relies heavily on NLP to address financial data questions and for organising and classifying news event data.

3.3 Artificial Intelligence trained by a Decentralized System

Artificial intelligent systems rely on data in order to build models to provide a function. The more quality of data, the better the model gets. Many financial professionals and independent traders all over the world have a wealth of knowledge and data, much of which remains private or unexercised. As explained earlier many trading ideas are not explored due to the barriers of entry. Models learned on data from a network of decentralised expertise hold the promise of greatly improving usability, by powering more intelligent applications.



3.4 Questioning and Answering System for Financial Data

At the heart of our Research Assistant is a questioning and answering system.

Questioning and answering is another strand of NLP, and its name suggests it is the process of asking questions and getting answers. Most questioning and answering systems today are akin to information retrieval and extraction systems.[4] These systems attempt to find specific answer to a specific question from a set of documents, or at least a short piece of text that contains the answer.

Example 1

What is the capital of France?

Paris has been the French capital for many centuries.

TradeRiser on the other hand does not focus on documents but rather on financial data. Questions which cannot be answered by a search engine or classic informational retrieval systems.

Example 2

1. How on average do cryptocurrencies historically perform when there are initial coin offering bans?
2. How do S&P 500 companies perform during hurricane season and when there are negative nonfarm payroll releases?
3. What impact did the Brexit vote have on the gbp/usd, eur/usd and btc/usd?
4. What is the volatility of most token based cryptocurrencies 3 months after their ico?
5. Which cryptos are likely to have the highest volatility in the next 3 days?

These questions are data centric in nature and requires technology that is domain focussed to address. These questions are news and event based and focus on how these affect the assets concerned, it is about understanding the correlation between events and asset prices. The answers to these questions are systemic and empirical in nature, and requires live sentiment and historically data to answer.

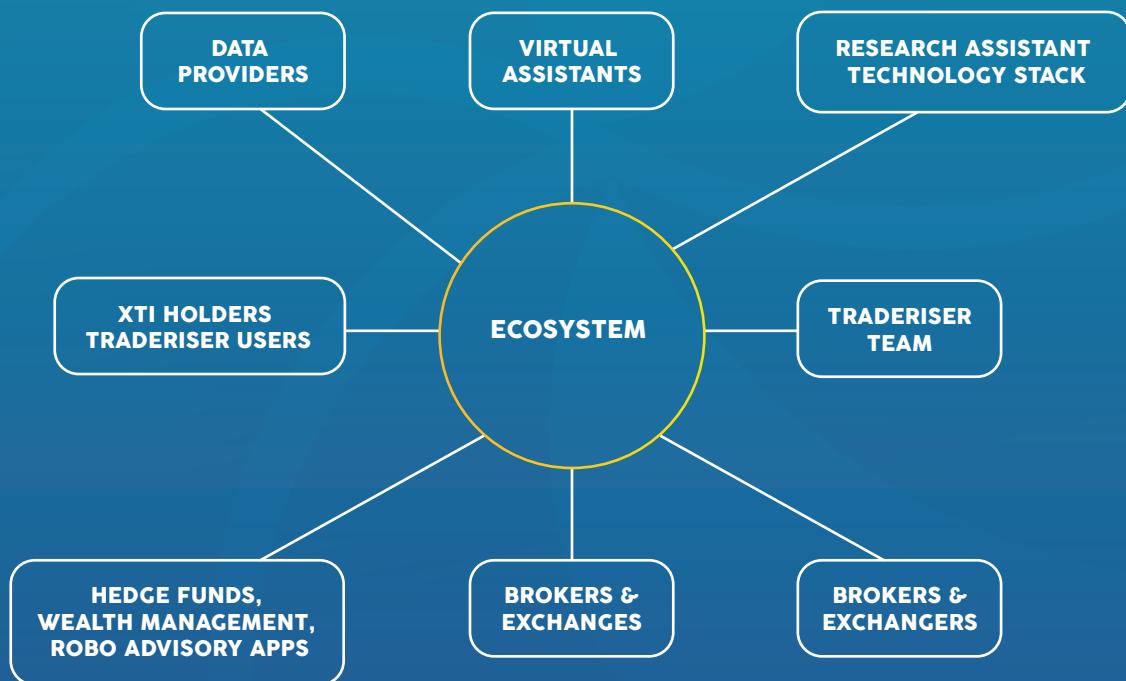


3.5 Artificial Intelligence Today

Current work in machine learning has shown that larger models can dramatically improve overall performance [5]. With the advent of deep learning, the field is rapidly expanding. With data being at the heart of machine learning crowdsourcing the questions and answers necessary to train models and incentivize participation via a token-based network will ensure a much larger model.

3.6 Participants

The ecosystem can be seen as follows :-



TradeRiser Team :- We oversee the project and develop the analytics and nlp within the platform.



Financial Analysts :- Will develop or come up with the questions. They can also provide market opinion which is used in sentiment analysis.

Hedge Funds :- Will be able to purchase the enterprise version and will be required to pay a monthly access fee in XTI which is used to fuel the ecosystem pool.

Users :- All users will be required to have XTI to use the community version. Users will be required to have an amount of XTI to access different features within the community edition such as the direct trading feature.

Data Providers :- Providers are individuals that provide publically available data from various sources to be used in the ecosystem.

Brokers & Exchanges :- All brokers and exchanges can enlist on our ecosystem to gain more clients. Clients will be able to trade directly from the research assistant.

Virtual Assistants :- We will partner with Alexa, Cortana, Siri and Google Home.

Quant and Analytics Firms :- As part of our ongoing expansion and value creation we will partner with research and analytics organisations. We will incentivize them to join the ecosystem to provide some of their best analytics capabilities to the community.

Phase one

The parties involved in phase one of the XTI ecosystem are defined as the following:

1. Financial Analysts - Parties interested in submitting question data and performing data validation and more.
2. Users - These are participants that will utilise the platform for consumption.

These include financial institutions, financial professionals and independent analyst users.

Phase two

1. Financial Analysts - Parties interested in submitting question data and performing data validation and more.
 2. Content Producers - Participants interested in using analytics from the TradeRiser platform to create articles and reports.
 3. Users - These are participants that will utilise the platform for consumption.
- These include financial institutions, financial professionals and independent analyst users.



3.7 Platform Features

- 1.** Community Edition :- This is comprised of many features that will be available to the community. They are as follows, the Research Assistant powered by the community data feed, ICO ratings, market condition analysis, ICO due diligence, investor portfolio analysis, direct trading, web and mobile app.
- 2.** Research Marketplace - Accessible to Token holders
- 3.** Enterprise Edition :- This standalone version is accessible to financial institutions, hedge funds or corporations. This includes our API.

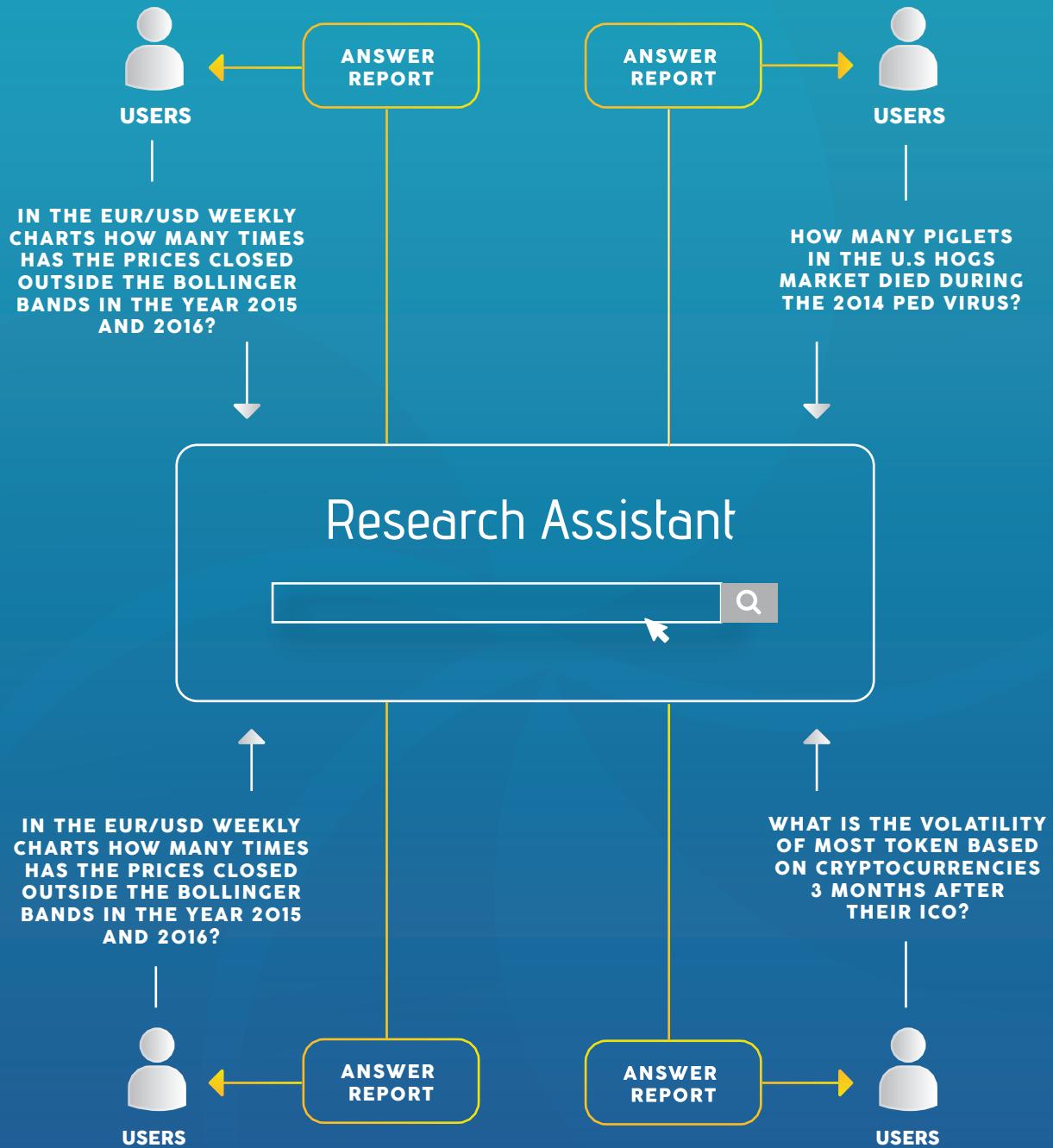


Fig 1 : Research Assistant Overview

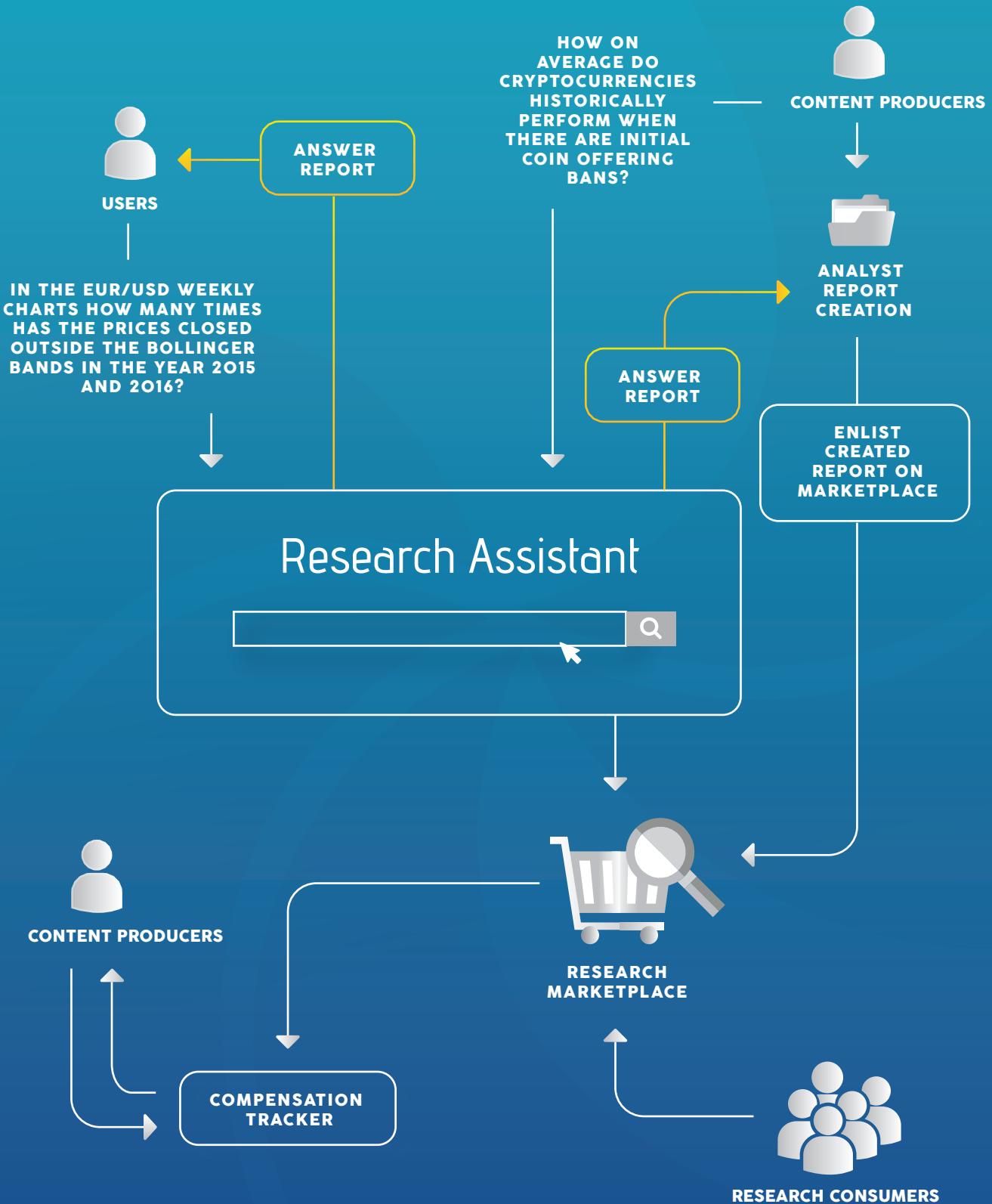


Fig 2 : Research Assistant and Research Marketplace Overview



3.8 Contribution from Independent Quantitative Research Analysts

Phase One

The financial analysts will voluntarily provide question data, perform sanity checks and more, in order to train our machine learning research assistant. This regular contribution will make the platform smart and smart.

Our contributing community of financial analysts across the globe will in essence rival the equity research teams found at numerous investment banks. This huge pool of talent we draw from, will help to enforce our credibility as financial technology provider, and the overall standing of our research assistant in this space.

3.9 Question Data Production

Phase One

Our Research Assistant will be trained to highlight new market events and impactful news trends that may be of significance to its users, and while making topical recommendations, based on past individual user behavior. This helps to prioritize certain query topics on an individual user-level basis that have a higher likelihood of relevance. These functionalities will especially be used by the community of financial analysts as starting point to guide them on what other forms of question data to train TradeRiser on.

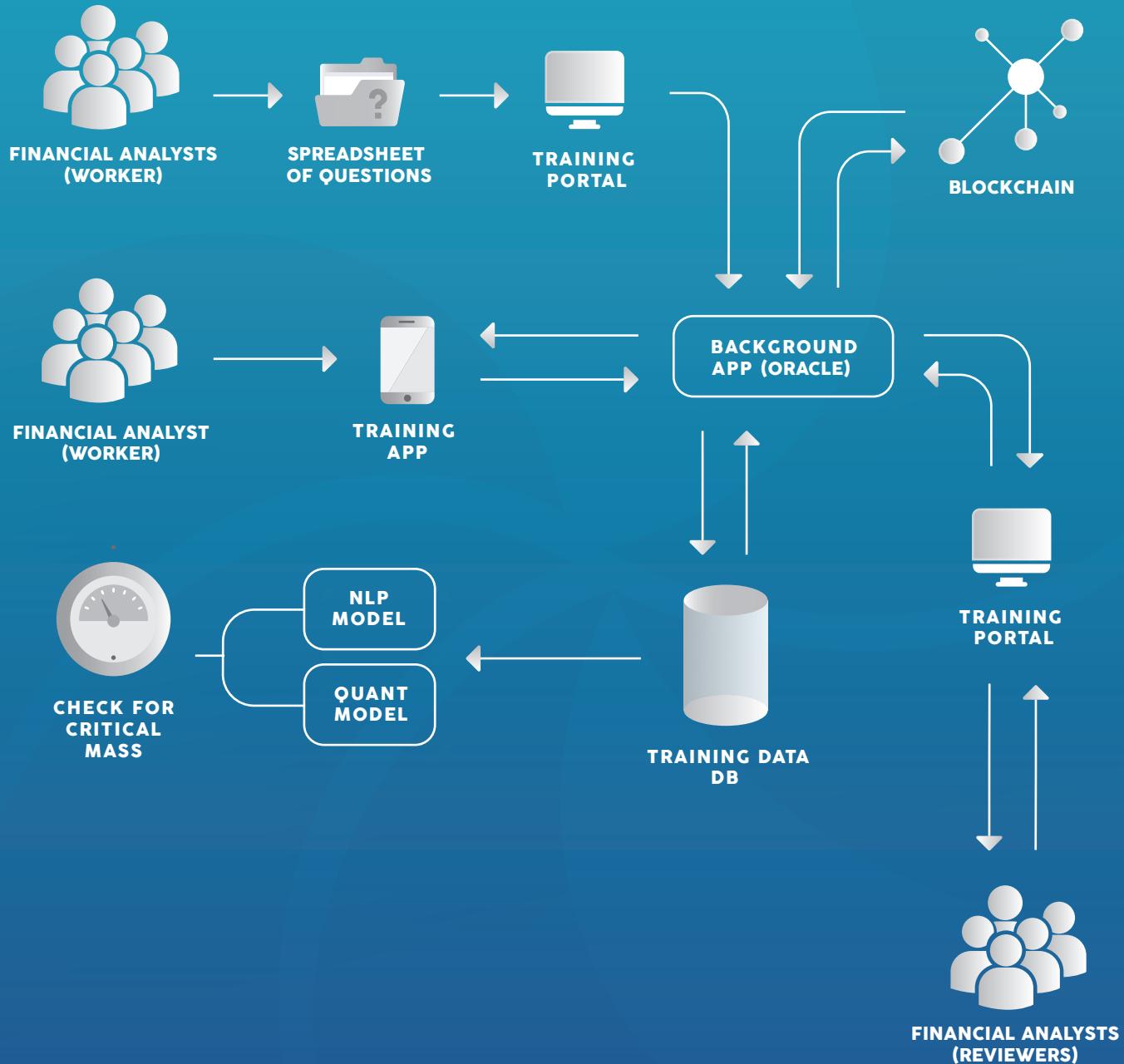


Fig 4 : Financial analysts submitting question data for training



Process Flow:

- 1.** Financial analysts submits question data through a training portal. This can be bulk questions or single questions.
- 2.** The submitted data is then published and put up for reviewing. Any member within the ecosystem other than the original worker/financial analyst can review the data. Using a smart contract in the XTI blockchain system, the data is checked by multiple reviewers (preferably 2) and only the data that they are all in consensus with, is what all members within the chain of work will be compensated for.
- 3.** After completing the review process, the reviewed questions can then be checked by second batch of financial analysts, to confirm the submitted work. The submitted work will then be automatically feed to our AI model.
- 4.** Each financial analyst will be compensated on the work they complete. The different stages of review and the type of review carries different compensation in XTI. Finding inconsistencies in data carries a higher compensation than graphical interface bugs reporting. The profile of the financial analyst, such as industry experience, will be a multiplying factor for compensation.

Compensation:

The consensus check is carried out on the blockchain, simply by looking at which data items where agreed upon.

Everytime the smart contract is called by the background application, the number of reviewers per work item is also checked, when a number of conditions is meet then the release of funds is triggered. Therefore all participants in the chain of work from the Worker, Reviewer1 and Reviewer2 are compensated.

For example:

By default reviewing work earns the reviewer a basic pay of 5 XTI. Worker gets paid 1 XTI for every approved question.



Reviewer1 and Reviewer2 get paid 1 XTI for every question that was agreed upon, where consensus was reached.

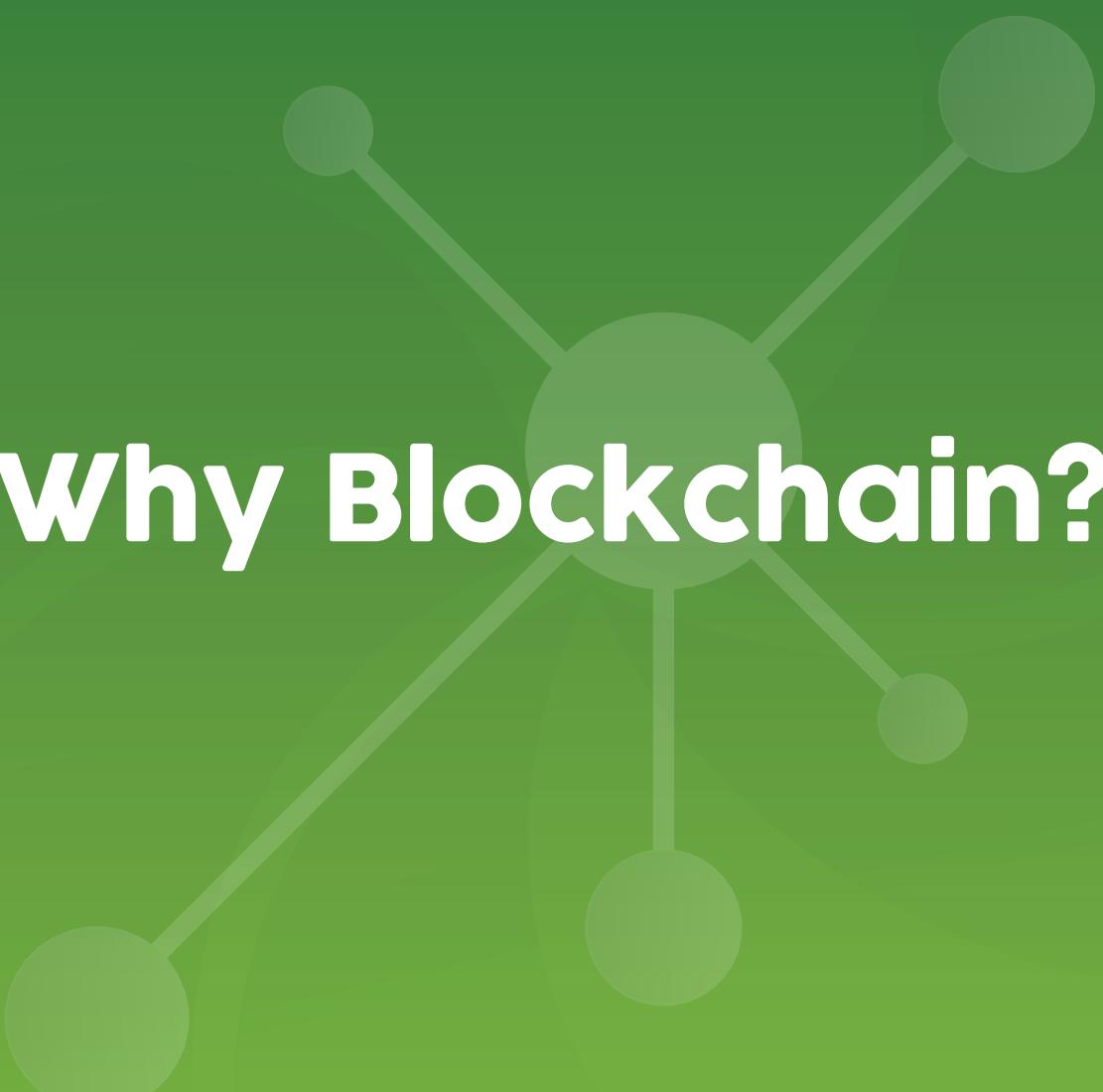
WORKER	REVIEWER 1	REVIEWER 2
3 XTI	5 XTI	5 XTI
	3 XTI	3 XTI

3.10 Contribution from Independent Analysts Research Producers

Phase Two

Phase two of the ecosystem focuses on the inclusion of content producers. Content producers will use analytics built into TradeRiser to create their own reports and commentary for the “Research Marketplace” section within the platform. Research consumers may choose to subscribe to this feature and be charged a variable fee of XTI relative to what content they consume.

For content producers we will create a vote scoring system, this scoring will determine the amount of XTI earned for each piece of reporting contributed to the “Research Marketplace” section. This vote scoring system will be driven by the research consumers who will be able to rate the effectiveness and popularity of each content producer and their work.



Why Blockchain?



4. Why Blockchain?

4.1 A System of Records

The blockchain ledger is a publicly-verifiable record that can be used to confirm that both the financial analysts and content producers on our system have been compensated for their contributions. Research consumers looking for premium reports that is in the Research Marketplace section will also have the confidence that payments have gone towards the content producer for the selected reports, with a dependable system-of-record always available as an accounting of their usage.

Financial analysts are like freelancers or contractors, the blockchain allows TradeRiser to create smart contracts with the financial analysts for various pieces of work. Our commercial transactions and agreements will be executed automatically, it will enforce the obligations that the financial analysts have in a contract. It provides an automated collaborative approach for data gathering using a large diverse pool of financial analysts. The smart contract allows for the different stages of work carried out by çto be rewarded.

We will utilise the blockchain to serve as a decentralised mechanical turk, in which workers produce data, which is then reviewed by multiple reviewers to ensure accuracy and quality of data. A similar system is being built by Gems (<https://gems.org/>), the difference with TradeRiser is that the data and work carried out is mainly for advancing the AI Research Assistant and theirs is for generic use.

Under the traditional model one would have to use freelance or contractor websites to hire and none of these services provide a decentralised method of sharing work in a chained fashion with third parties enforced by smart contracts.

Given the wide pool of financial analysts that will be available at our disposal there is a strong use case for offering research organisations the opportunity to post jobs within our network. Therefore a peer-to-peer task such as posing complex financial questions, will be set between the research organisation and the interested financial analysts. TradeRiser will be able to learn from the question and data used between these peers, have it added to our



model and in the process take a small transaction fee. All of the conditions of this offering will be set out in the smart contract. The infrastructure we will build also lends itself for collecting live sentiment data, similar to the way that Sharpe Capital and Cindicator does.

Using the smart contract on the blockchain brings great automation in the way we harvest our universe of questions and answers for training our AI. In summary, the blockchain will allow for a side chain for payment on the XTI platform and the creation of a secure system without the need for an intermediary to gather the information.

4.2 Costs Cutting

In bid to bring as many financial analysts and onto the ecosystem, we want to reduce the friction associated with transferring capital between parties. Friction such as clearing costs and counterparty risks, will be eliminated by using our XTI mechanism on the blockchain.

4.3 Reaching Critical Mass

One of the biggest challenges of TradeRiser is getting our Research Assistant model to reach critical mass. In other words getting it to a place, in which it can answer the majority of trading questions it's users will have. The system needs to be trained on a large universe of question, events and market data.

Phase one addresses the way to acquire the data set of questions. This will be done by TradeRiser issuing the XTI tokens as compensation for the ongoing contributions to building the knowledge base, from which the machine learning will be done from. Once critical mass has been reached, executing phase two in attracting research consumers onto the platform will be easy. With both the research consumers and content producers now fully on the ecosystem, the research consumers will now be able to reward the content producers for their premium content and voting. This ongoing cycle will create a chain effect, thus attracting more contributors to the platform.



**why our
Own XTI?**



5. Why Our Own XTI?

5.1 Community Credibility

Having our own XTI token allows us to build a community from which we can gain high degree of credibility from. This is a sure way to validate the answers our Research Assistant produces. Community credibility empowers us to reach a much bigger scope of institutional clients and individual consumers.

5.2 Payment Issues

The major digital assets have issues with scaling, as each payment, incurs a transaction fee. As our Research Marketplace platform thrives on the idea of micropayments in exchange for access to content on the Research Marketplace, these fees can quickly add up. XTI allows both the content producers and research consumers to keep a tab via smart contract asset exchanges, minimizing the frequency of transactions and reducing aggregate fees.

5.3 Managing the Monetary Supply

TradeRiser as a company can manage the supply of XTI, which is needed to ensure the fairness of the payments system. The price setting is commensurate with real world compensation for work produced by quantitative research analysts and strategists.



XTI Purpose



6. XTI Purpose

6.1 Research Consumers

Research consumers will be able to acquire XTI from TradeRiser which they can then use to gain access to the Research Marketplace feature and Community Edition.

Research consumers holding the XTI will give them the following benefits:

- Higher voting power, which can be used to upvote research reports and commentary articles. Voting upwards will increase the value or the amount of XTI earned by content producer.
- Greater Access to historical inbuilt analyst reports generated by the content producers.

6.2 Stakeholder

TradeRiser company: XTI will be used by the company to ensure compensation for the advancement of the platform and for report generation. The company will take a small commission on each XTI transaction, between research consumers and content producers.

XTI Mechanism



7. XTI Mechanism

7.1 XTI Supply

XTI will have a supply with nominal value USD 34,000,000.

7.2 Inflation

The supply of XTI will increase over time at a rate of 10% per year. Half of this is provided proportionally to current holders of XTI on the TradeRiser platform as an anti-inflationary measure, while the other half is used to provide payment to content producers on the platform. XTI held “off the platform” in wallets, exchanges, and other locations, will not receive the anti-inflationary measure to help offset the effects of the annual inflation.

The inflation rate will be gradually adjusted downwards, if there is deemed to be enough additional XTI circulation to provide reasonable rewards for new research content.

7.3 XTI Refunds

In certain cases, XTI may be refunded to platform participants. For example, use cases may arise that will necessitate a refund, but typically will follow a minimum period of 3 weeks before this takes place.

Current Platform: Market Fit



8. Current Platform: Market Fit

TradeRiser has built an alpha/private beta version of the Research Assistant, this can be accessed on request or signing up at www.traderiser.com. The alpha/private beta version focuses on forex, commodities and indices, and will allow users to ask questions surrounding the economic calendar events, technical analysis, correlation and performance and more. This version has been built predominantly for demonstration purposes and data capturing.

Our intention is to transform this into powerful fully fledged Research Assistant that will accompany all corners of the trading and investing space. So far it has been seen by major investment banks and technology vendors, and has received a lot of positive feedback.

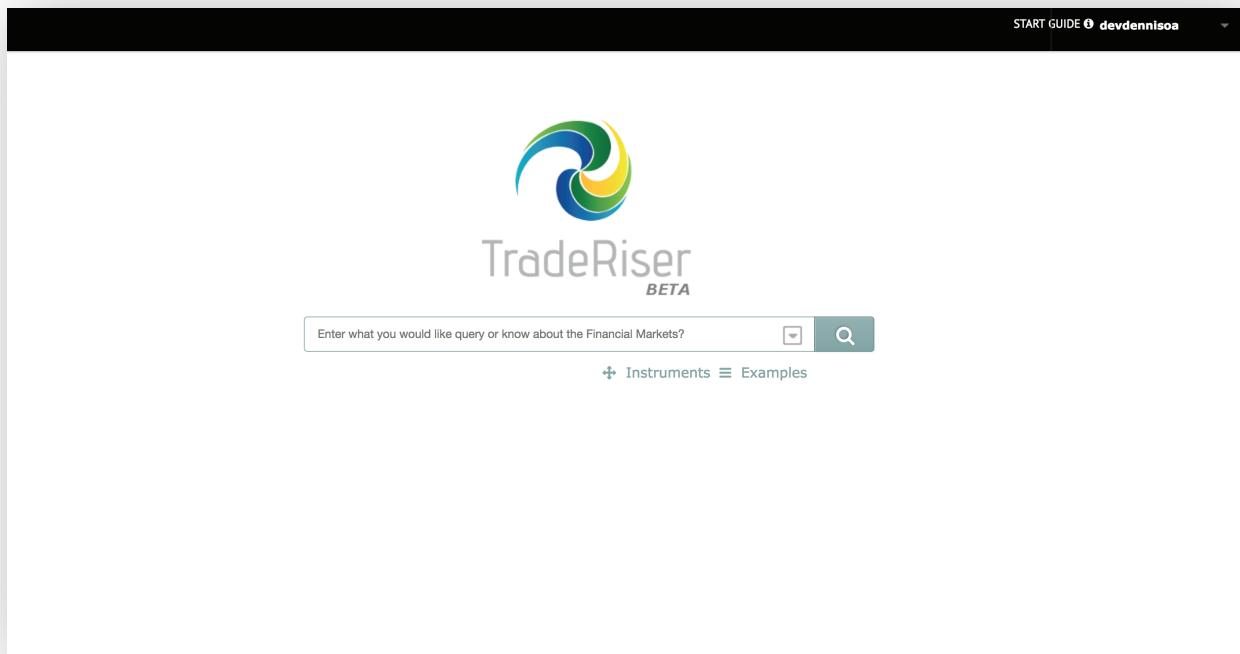


Fig 6 : Search/Query Bar

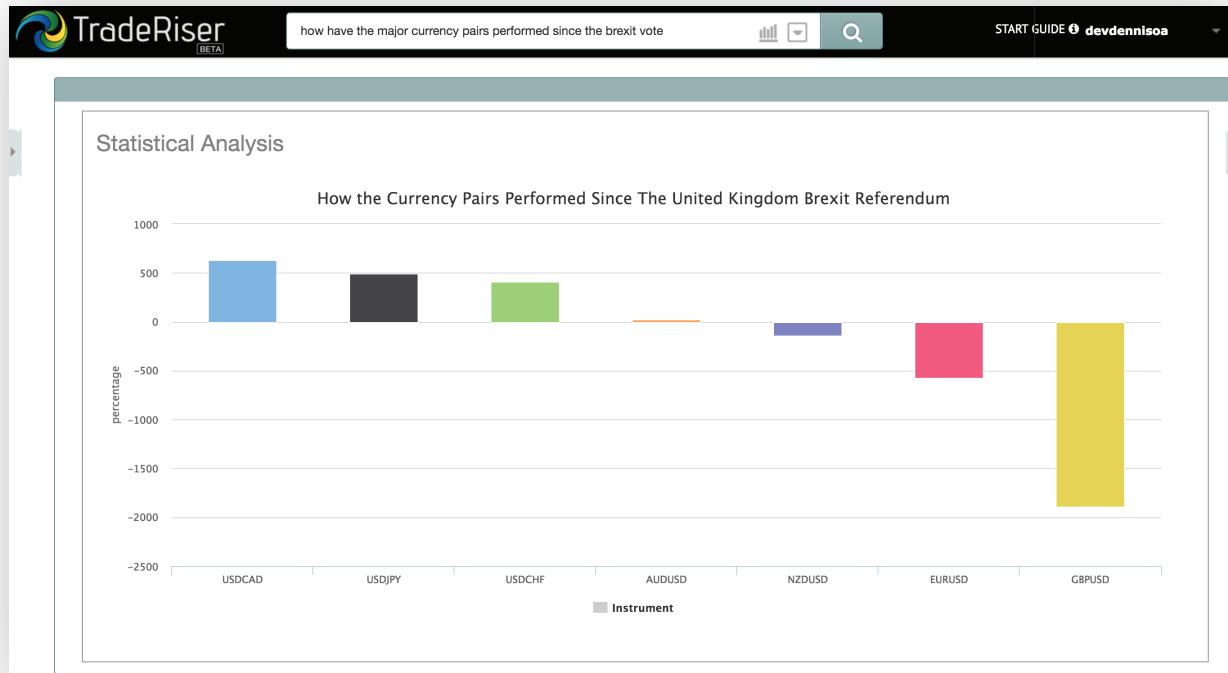


Fig 7 : Report View showing answer to a question



Fig 8 : Report View showing answer to a question

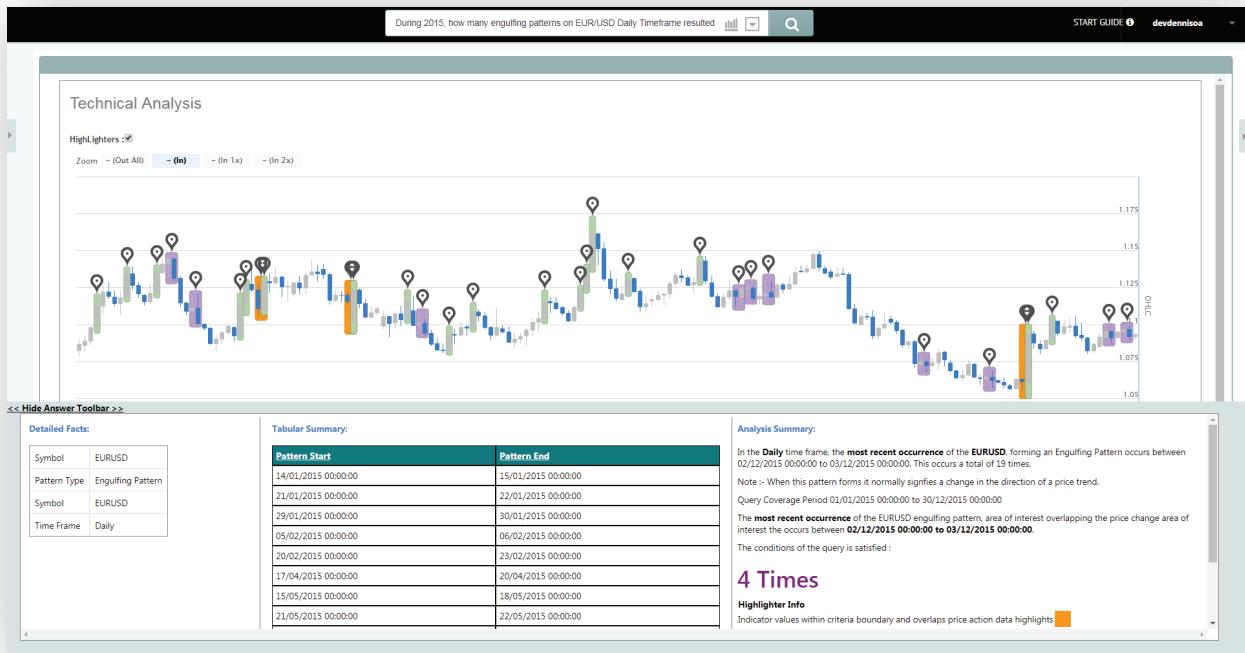


Fig 9 : Report View showing result and generated commentary

8.1 Data Sources

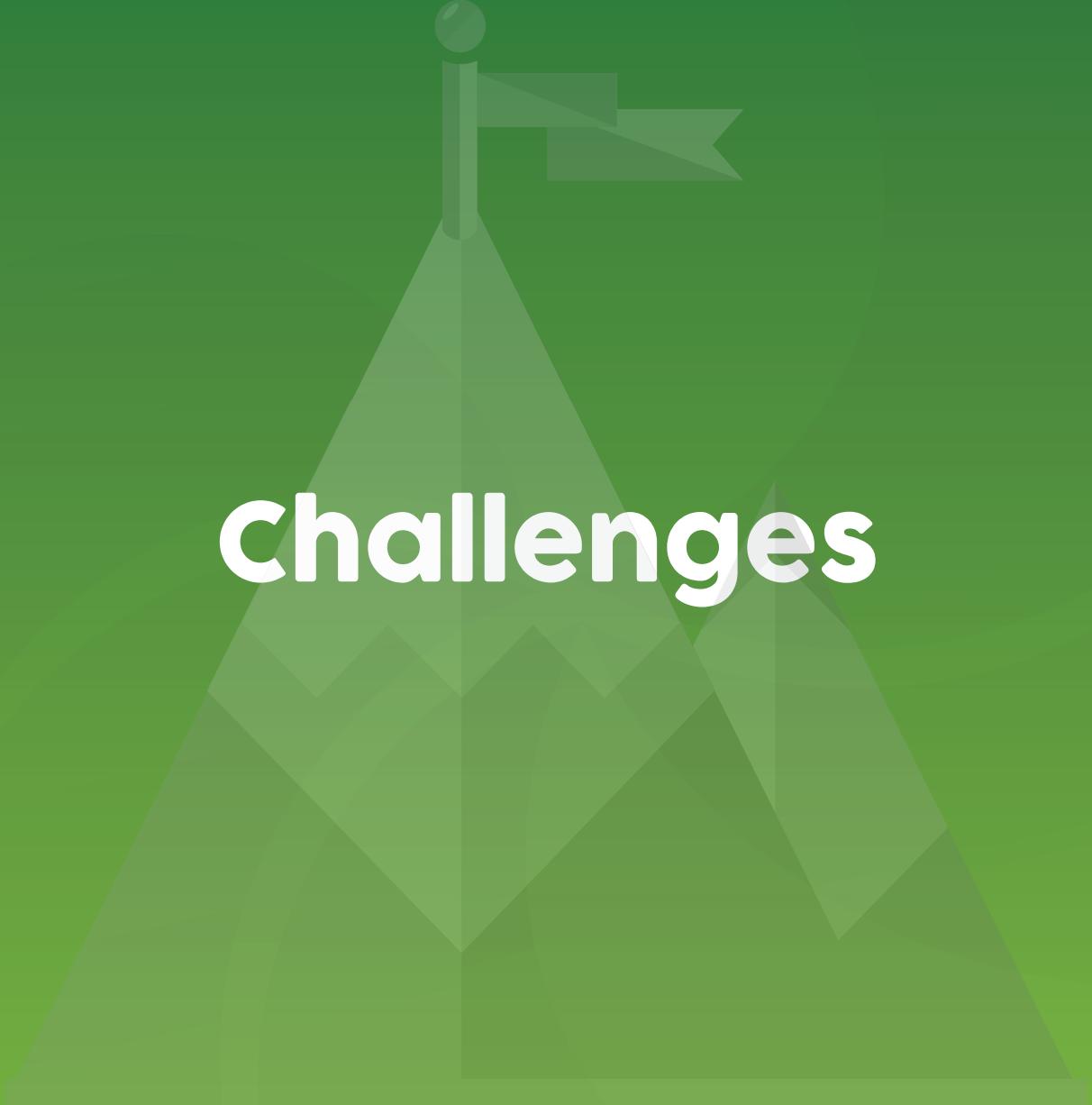
Our research assistant employs machine learning and natural language processing (NLP) for questioning and answering. It's also used for data gathering, classification, analytics and retrieval. TradeRiser will feature data from the following sources:

- Economic Calendar
- FDA Drug Approval Calendar
- Earnings Calendar
- Economic Data
- News Events Data
- Press Release Data
- Relevant Social Media Data
- Price Action Data :- Stocks, Indices, Forex, Commodities and Cryptocurrencies
- Analyst Commentary



8.2 Research Assistant and Ecosystem Development

The development of the Research Assistant and the XTI ecosystem will require significant investment. We have already funded the development of the early stages of the Research Assistant platform through bootstrapping. Users of our platform and XTI will come from a large pool of mixed investors.



Challenges



9. challenges

Building a Research Assistant and a supporting ecosystem of content reporting by independent content producers is challenging.

9.1 Subjective Content

By nature, analysis and opinions voiced in research content is subjective, and what is considered to be relevant changes depending on the preferences of the reader. To better organize high-quality research, the platform will organize the reports by category and then popularity.

Popularity rank/scoring is calculated using a combination of metrics:

- Reader voting
- TradeRiser team reviews
- Page count
- Total Reports/commentary
- Historical views

TradeRiser's machine learning algorithms, will help users find more relevant and interesting research based on user statistics.

9.2 TradeRiser Team Reviews

TradeRiser staff will give points on the quality of the work carried out by the content producers.

Submissions must meet a minimum standard in order to be published, this is will ensure quality of reports and commentary. Combining this internal review points and the use of the other metrics will help to give each content producer fair compensation.

9.3 Profile Score Calculation

Users will be able to view reports and commentary based on content producer profile scoring. This will demonstrate to the research consumers which content producers are more established and whose research may be more reliable. There will be a total scoring of 100, this scoring



will be from the following:

- Historical views:- growing view count over time, will increase scoring.
- Total Reports/commentary :- total number of reports by the content producer.
- Number of pages:- the number of quality research content in the report and commentary section.
- Reader voting :- research consumers can vote on each report or commentary feature.

9.4 Plagiarism

TradeRiser has a strict policy forbidding any degree of plagiarizing on our platform. Users found to be in violation of this may have their account revoked and IP banned from our system.

Remaining balances may or may not be paid out, depending on the severity of the case. That being said, research content (themes, ideas, or partial / entire articles) could be copied, plagiarized, or otherwise misappropriated from other existing articles on the platform, or from external content sources such as news websites or blogs.

Another form of plagiarism is when authors intentionally re-post their own content, or a similar enough derivative content more than once. The same natural language processing engine will be used to identify such activity, in order to ensure users are not attempting to get paid more than once for the same content while spamming the platform.

9.5 Existing Platforms

9.5.1 Blockchain Based Content Reporting Platforms

Other blockchain based content platforms such as Steemit and Red Pulse have made headway in the incentivization mechanisms for content creation and distribution.

Red Pulse for example is about chinese market news reporting, TradeRiser on the other hand is about quantitative analytics with commentary and reporting.



Steemit for example, has developed a way to incentivize social media content creation, Red Pulse has also developed a research content creation. There are many differences, we have drawn inspiration from these two to include the following:

- Such as 1 vote per user for a report or commentary, this is renewed daily.
- Scheduled increase in XTI circulation to supply rewards for new and existing research content
- Pre-determined anti-inflationary mechanism for existing XTI holders that are willing to commit to a holding period, also provided by scheduled increase in XTI circulation.

9.5.2 Financial Research Platforms

TradeRiser although predominantly a Research Assistant it will have commentary and reporting from independent content producers from around the world. This novel approach combines quantitative analytics and commentary reporting. Platforms, such as Bloomberg, Thomson Reuters, FactSet, S&P Capital IQ and more, have sell side equity research that come from their organisations themselves, while as TradeRiser aims to have global independent input.

9.6 Conflicts of Interest

TradeRiser team will screen all financial analysts and content producers and will require applicants to disclose anything that may be of conflict of interest. Things such as personal positions in stocks must be disclosed and agreed to in writing.

9.7 Ethical Standards

TradeRiser employees will be required to follow ethical standards of the highest order. All employees are forbidden from disclosing market sensitive data and commentary prematurely. The in-house compliance team will report to the board of directors to ensure adherence to the standards set.



XTI Risks



10. XTI Risks

10 XTI Risks

XTI is not intended as an investment item. It is however the underlying mechanism that drives the advancement of the Research Assistant during phase one, and holding XTI is a form of product validation. During phase two it facilitates in report/article production and consumption. XTI holders must be aware however, there are several risks.

10.1 Project Risk

As with any project, the TradeRiser project is also subject to potential delay and even failure. The core team has a strong record of software development and business management experience, but this is not a guarantee of success. The TradeRiser team will endeavor to the best of its ability to hit the milestones outlined in the project roadmap, and will be as transparent as possible regarding our progress and any challenges we meet.

10.2 Cryptocurrency Risk

Cryptocurrencies are incredibly volatile, with highly fluctuating prices. All wishing to purchase XTI must do so in the knowledge that they are willing to lose it in the event of unforeseen circumstances. In other words do not purchase more XTI tokens than you are willing to lose. We urge interested parties to take time to understand our project and vision. We wish to attract patient and like-minded participants who are likely to be active contributors to the company's vision and mission.

10.3 Regulatory Risk

As we have seen in recent history, technology tends to develop faster than the regulatory environment. Some obvious examples of this is in the advancement of self driving cars in the United States and the various states playing catch up, on whether to permit this technology or not. The same can be said for blockchain and cryptocurrency technology. The regulatory environment is still being developed surrounding initial coin offering and cryptocurrencies. We will be paying attention to any updates on regulation and the legal



framework. We will do our best to comply with all legal and regulatory policies that develop, but cannot anticipate every form of regulation that may impact the project and platform development.

In September 2014, the Bank of England wrote a report on “The economics of digital currencies”, the summary of this report was that digital currencies do not currently pose a material risk to monetary or financial stability in the United Kingdom. The Bank of England continues to monitor developments in this area. [6]

The Bank of England has since explored several developments within the blockchain space, that it could utilise. In July 2017, it carried out a successful test of an “interledger” programme developed by Ripple, the California-based blockchain specialist, to synchronise a payment between two central banks’ systems. [7]

In March 2017, the Bank of England teamed up with artificial intelligence Canadian startup MindBridge AI. They used their technology to discover abnormalities in financial transactions, and "explore the benefit of machine learning technology for analysing the quality of regulatory data input." [8]

The Financial Conduct Authority (FCA) in the uk, has so far outlined some measure that investors in initial coin offerings (ICO) can take to protect themselves. They provide a form and Q&A for would be investors addressing questions such as “Should I report ICOs to the FCA?” [9]

However as it stands there is no action to date by the Financial Conduct Authority (FCA) to ban initial coin offerings (ICO). The body mostly warns of caution for would be investors. [10]

China has banned initial coin offerings (ICO), but it is understood that this action has been taken in a bid to regulate it and that it is by no means a permanent ban. [11]



The U.S. Securities and Exchange Commission (SEC) has indicated that companies that undertake an ICO may need to register with the SEC if the token is considered a financial security [12].

TradeRiser has taken steps to ensure compliance with regulations and intends to comply with these directives, as required to the best of our abilities. Citizens of the US, Mainland China, or any banned jurisdiction, are not allowed to participate.

10.4 Benefits of XTI Token

- Access to Community edition of TradeRiser and Research Marketplace
- Become financial analyst if you meet the criteria
- Become content producer if you meet the criteria

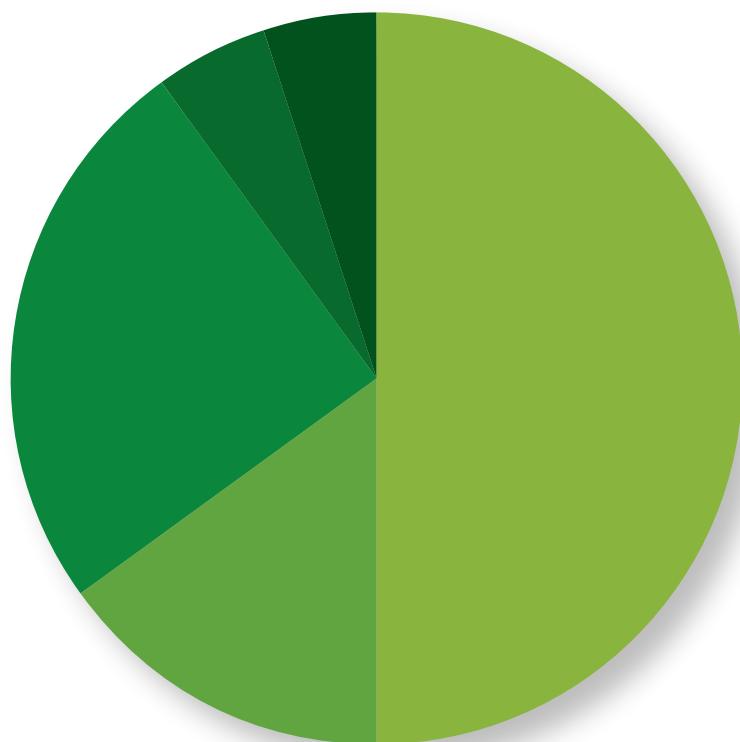


XTI Token Sale & Distribution



11. XTI Token Sale & Distribution

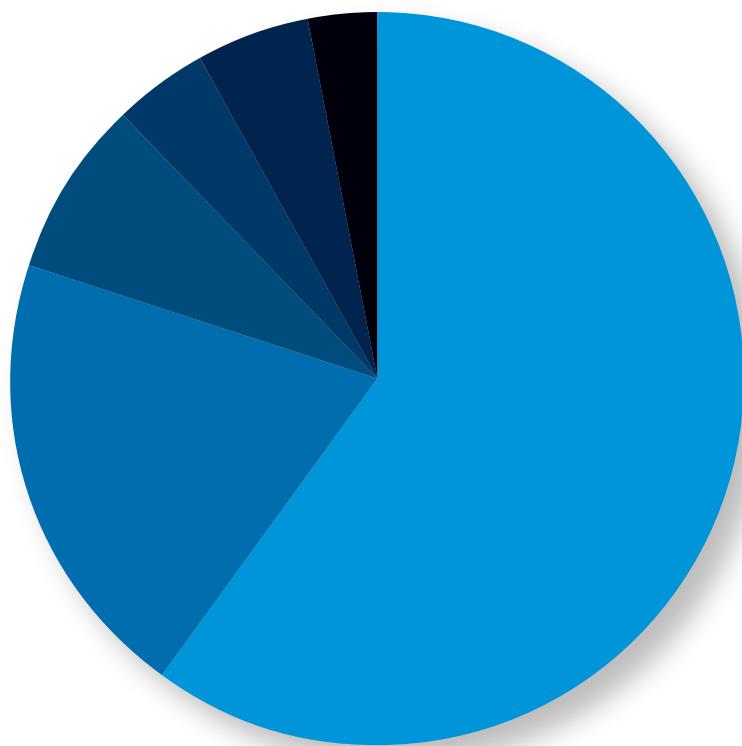
Token Distribution



- 50% Crowdsale
- 15% Distributed to Community for Ecosystem Incentivization
- 25% Company founders, advisors and employees
- 5% Bounty and Referrals
- 5% Strategic Partnerships and Future Development



Funds Distribution



- 60% Product Development
- 20% Marketing, PR and Sales
- 8% Partnership
- 4% International Expansion
- 5% General Admin and Operations
- 3% Legal



- Target on crowdsale: \$34,000,000
- Presale Cap: \$2,000,000
- Total in existence: 500,000,000 XTI
- XTI Token type: ERC20
- Purchase methods accepted: BTC and ETH
- Will run during: May 2018 - July 2018
- Based on Ethereum blockchain and the Ethereum smart contract

Specific details at <https://www.traderiser.com/token-sale>

Employee allocation of XTI will have a vesting period of 24 months, with a 6 month cliff.
Allocation will be proportional to the tenure of each employee by the date of token sale.

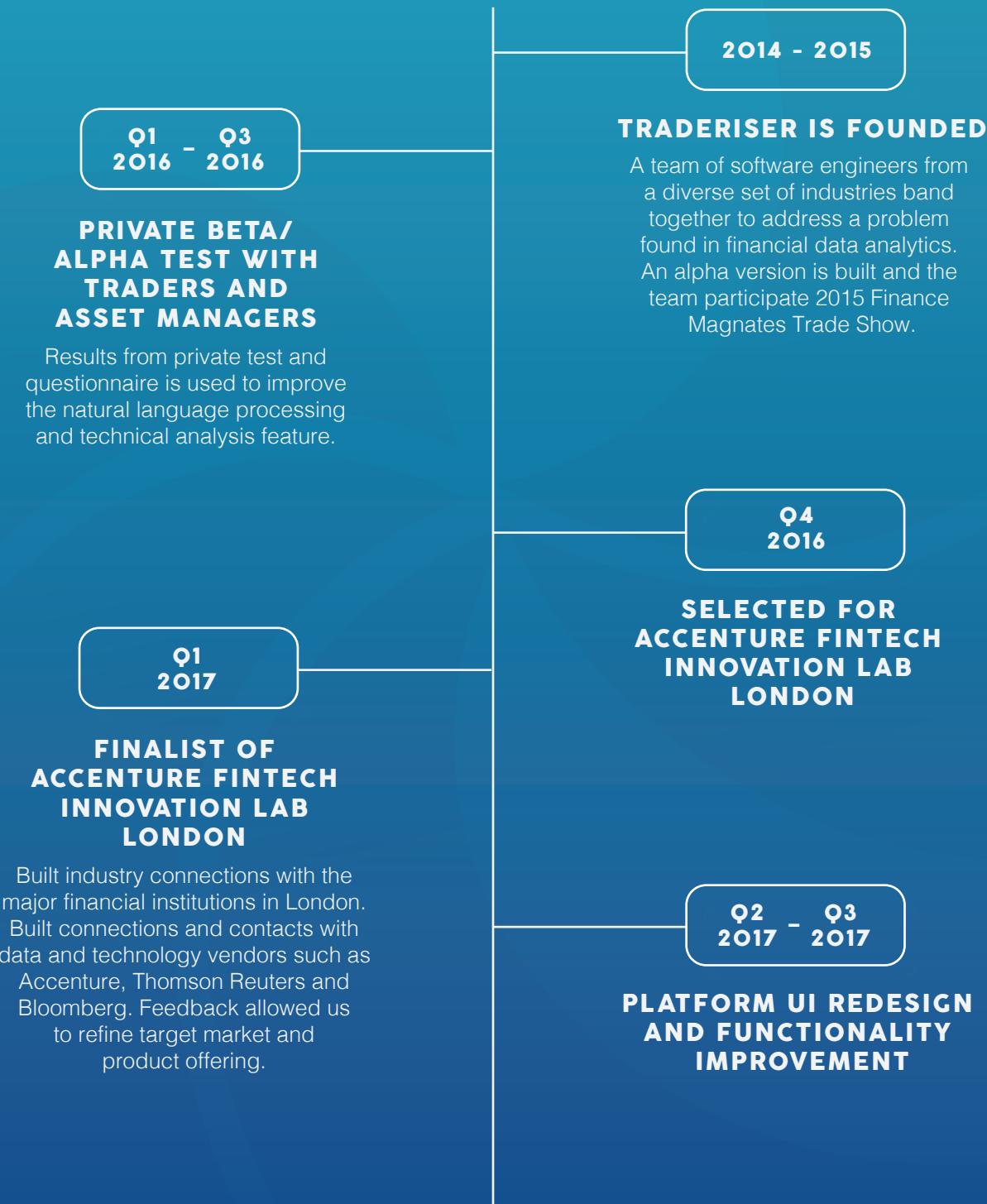
Unsold tokens will be burnt.

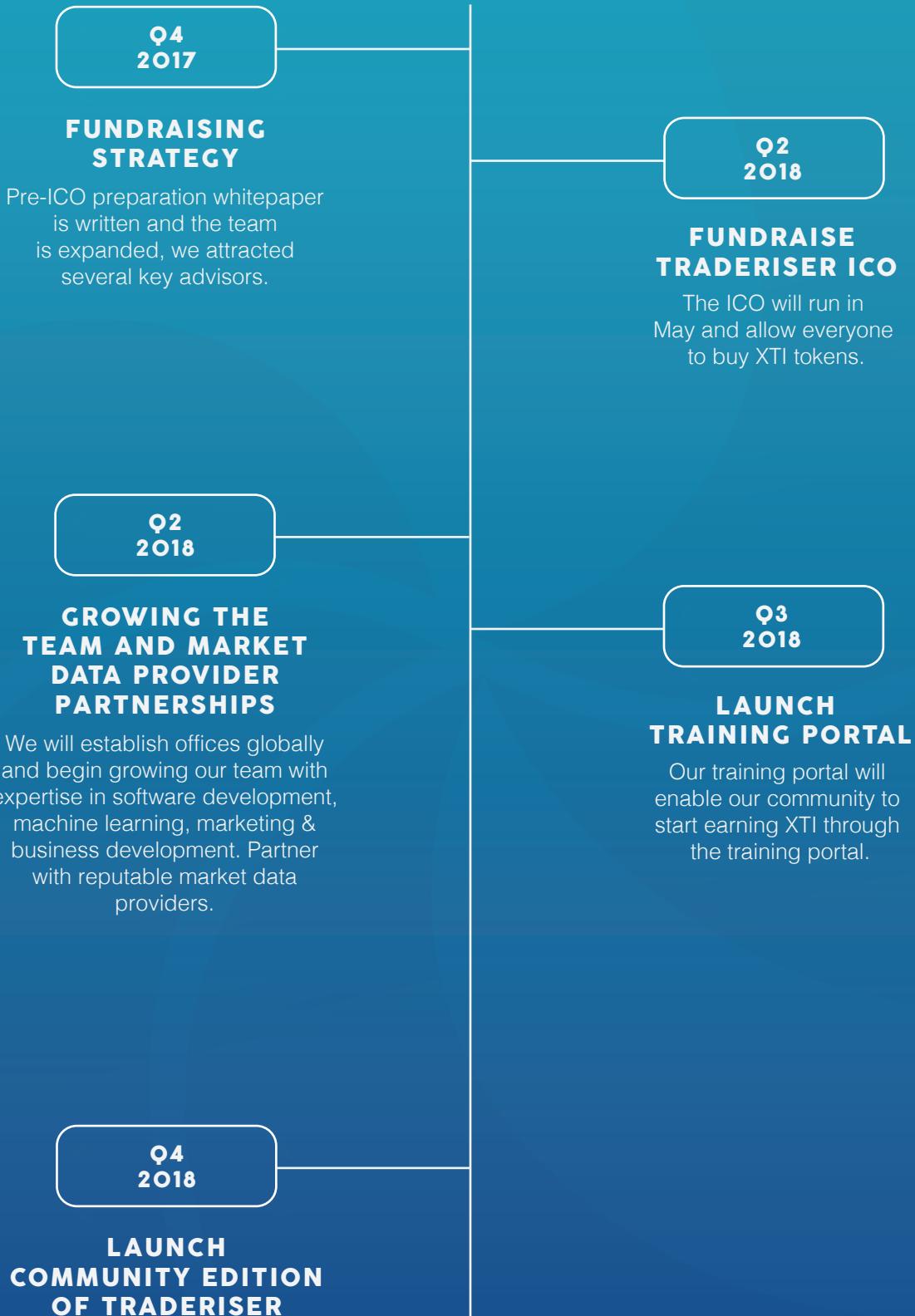
PRE - ICO ROUND VALUE	ICO ROUND VALUE
1 XTI = \$0.09	1 XTI = \$0.15

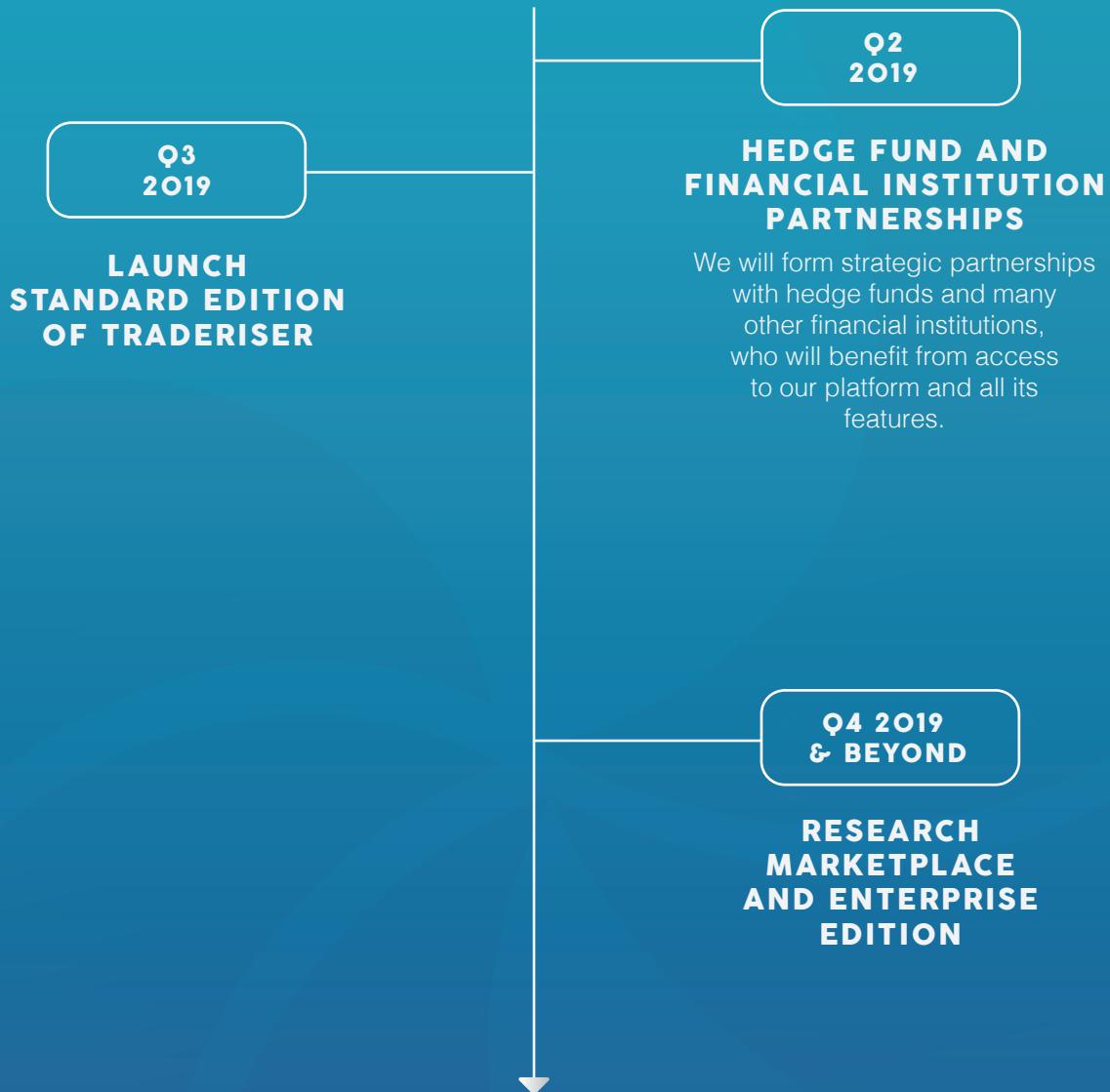
Roadmap



12. Roadmap









Team



13. Team



Dennis has 10 years of experience in software development and data analytics. He has worked for companies whose clients include the financial institutions, providing them with analytical software tools. He holds a BEng degree in Computer systems from Brunel University, London. He also studied natural language processing and is the creator of the Research Assistant.

<https://www.linkedin.com/in/dennis-owusu-ansah-b455a852>



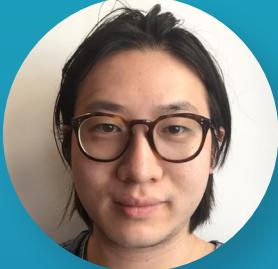
Karianne drives the digital marketing strategy at TradeRiser. She is multilingual, holds an MBA, and has lived in 9 countries with experience from startups, corporations and public institutions within fintech, real estate and more. She has been part of marketing campaigns including various brands such as Unilever, Kraft foods and iZettle.

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Sean is a Certified Chartered Accountant and has extensive experience working in Financial Institutions. Sean holds a degree in Finance and Economics from the National University of Ireland, Maynooth and is currently studying a Masters Degree in Banking in University College Dublin. Sean is passionate about helping Businesses develop for the future and has an avid interest in Fintech.

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Daniel Jiang Blockchain: Daniel is actively involved in cryptocurrency and blockchain communities. He has experience in software development, public policy and economics. He is actively involved in identifying the intersection between disruptive blockchain technologies and their economics.

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Poly Apraku has a computer systems engineering degree from Brunel University. He studied robotics as part of his thesis and gained a lot of experience working in image processing after graduating. He is an experienced technologist with over eight years of developing, integrating and supporting large data driven systems, especially in the consumer retail space. As chief technology officer and co-founder he oversees TradeRiser Limited's technology infrastructure and helps to drive software development.

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Leigh is a UX Strategist with two decades of expertise in Design and UI Development covering many industry spaces; eConference, Legal & Legislative Publishing, Fashion, eCommerce, Market Research, Gaming and most recently the Fintech Insurance market. Graduated a BAHns degree in Graphic Design from Southampton University, his experience in end-to-end Product design is invaluable to our success. He heads User Experience Design and develops the Visual UI of the TR brand as our resident Senior UX Designer.

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Sunil has got years of experience in designing and implementing ETL and Reporting for Financial Institutions. Holds a strong understanding of Financial instruments, Regulatory and Risk reporting. He has a first class degree in Electronics and communication from RGPV Bhopal, India.

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Rocky Asante graduated from the University of Coventry where he studied computer science. He has worked for BAE Systems taking on roles such as UI/UX developer and project manage small teams of developers. Of all the founders he has the most experience in running business ventures in the consumer internet space, developing online auction and social media tools. As chief engineer and co-founder he oversees user experience and user interaction at TradeRiser Limited, he is also heavily involved in API development.

<https://www.linkedin.com/in/rockiedavid>



Surkit has a background in quantitative analysis, marketing and machine learning. He is currently the community manager for TradeRiser and is well suited to communicate the vision and mission of our products, both as a quant and as a user. He is currently studying Artificial Intelligence at Heriot-Watt University.

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FAQ



14. FAQ

Q1. What is TradeRiser?

TradeRiser is a Research Assistant platform that can answer both simple and news based trading questions. Users can type a trading question into search box and TradeRiser will go to work to compute the answer.

Q2. Are you offering a research marketplace or something else?

The TradeRiser platform will have section with a research marketplace.

The research marketplace will have lots of reports created by analysts, these research reports will have content such as charts, data and commentary which have been retrieved from asking the Research Assistant and embedded into the reports.

Users will be able to select which report they want to read and by which analyst, they will also be able to rate/vote the analysts. Users will be able to pay for the curated reports using the XTI token, which will be paid to the analysts.

Q3. What kinds of questions does TradeRiser answer?

The first few versions of TradeRiser will focus on statistical and quantitative type questions.

These questions that are data centric which have an empirical answer.

The questions it will be able to answer will focus on the domain of the financial and cryptocurrency markets, the world of news and events and how these affect the assets.

Q4. What audience is TradeRiser aimed at?

TradeRiser is aimed at users of all levels but financial professionals in particular in mind.

Q5. Which assets will be available: stocks, bonds, currency pairs, CFD, derivatives, cryptocurrencies?

All the above and more.

Q6. How are you different from Siri, NOW, Watson, Cortana and Alexa?

These technologies are general purpose technologies that thrive on mobile devices and home use and aren't necessarily suitable for the trading and research environment. With



that said there is nothing stopping us from integrating into these existing technologies using our api. These technologies are already integrating with other technology vendors. Watson on the other hand can be applied to research and business, the challenge with this technology is the cost associated with it. Many AI startups are working to devolve functionality found in Watson so that it can be offered for much cheaper.

Q7. Why can't other well funded companies do this?

We are solving a difficult problem and other companies are more focussed on other projects and domains. A lack of will is one reason, the other is they want to address much easier problems. The prospect of well funded companies carrying out similar innovation should not be a hindrance, as that logic would lead to no of startups ever emerging.

Q8. How are you different from Kensho?

Kensho considers itself an analytical company while as TradeRiser focuses on technology that make human interaction with data simple. This means that our products will focus on the layer of interaction. Distinguishable features in our product would have to be the use of the blockchain, community driven AI and the Research Marketplace. The standalone Enterprise version which can be placed on client data is also another difference.

Q9. Doesn't the value of your product diminish with the more people that use it, the less valuable it becomes?

Not necessarily, how you use it is what determines the value. We live in world of endless data and as new datasets arrive new questions will be born. Therefore the onus is on the user to exploit. A good analogy is, the current state of the market is akin to using a shovel to search for gold and what we are proposing with our platform is to use a mechanical digger, as this is lot more efficient and faster. The digger will not tell you where the gold is but you have a higher chance of finding it if you use one, compared to a shovel.



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