



XRIBA

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# Xriba & TokenCheck Foundation.

**Bringing transparency and accountability to cryptocurrency and business.**

WHITEPAPER

Description of the project  
Draft



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# 1. Executive Summary.

**Xriba was created to bridge the traditional financial frameworks with that of the Cryptocurrency Market and to bring an increased level of transparency and accountability to all markets.**



In traditional businesses, when companies receive investment and startup capital they are subject to an increased level of transparency and accountability.

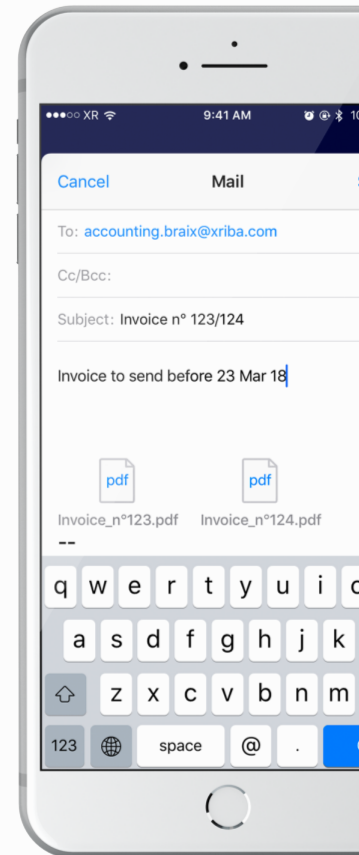
Traditional businesses remain transparent and accountable to their investors and supporters by releasing quarterly statements, working hand-in-hand with investors maintaining clear communication of road maps and timelines, taking advice and input from investors and other applied tactics. Each traditional company works differently, but a common denominator that they all have is quarterly statements that inform their investors and supporters of their current financial standings.

This accountability and transparency is completely missing from the cryptocurrency space. Nearly all cryptocurrency companies fail to produce quarterly statements and rely on their marketing team's tactics to convey the companies current standing to both their investors and the public. This creates a transparency problem in the cryptocurrency space and makes it very difficult to properly evaluate a cryptocurrency company. The current method of



evaluating a cryptocurrency company is very subjective and leaves much room for interpretation. **The current method involves:**

- **Examining the Team, team members and advisors history;**
- **Examining the technology offered by the company and predicting the impact that technology will have on the technology sector;**
- **Evaluating the partnerships of the cryptocurrency company to determine how connected they are in the overall market;**
- **Looking at the current market cap of the cryptocurrency and personal discernment to determine if that company is under/over valued compared to its market cap;**
- **Examining the overall network traffic and number of transactions that occur on that cryptocurrency blockchain.**



Each of these points are subjective and does not provide any concrete information pertaining to the financial health of a cryptocurrency company.

Xriba has developed a protocol, accounting applications and various tool-sets to address the ambiguity in evaluating cryptocurrency companies from a financial perspective; Providing cryptocurrency companies and traditional companies alike a framework for remaining transparent and accountable to their investors, supporters, and the open market.

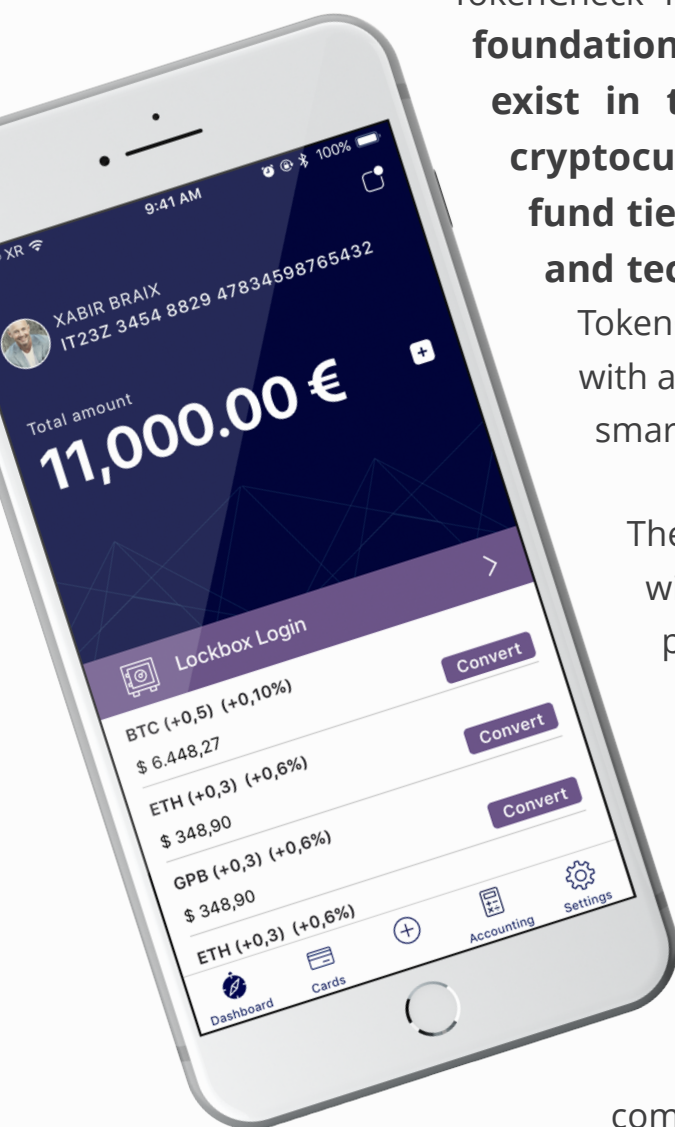


Xriba has developed an open accounting protocol called the “Xriba Protocol” to record financial transaction records on a public decentralized ledger. This is revolutionary for the accounting industry and creates a decentralized method for saving archiving, and querying financial transaction records. The Xriba Protocol includes an open API that allows any third-party company to build their own accounting applications or tools on top of.

To support Xriba’s vision of accountability and transparency in the cryptocurrency markets, Xriba has become a founding member of

TokenCheck Foundation. **TokenCheck is a decentralized foundation and brings many financial features that exist in the traditional financial markets to the cryptocurrency sector such as seed-investment fund tiers, team member and partner verification, and technological, legal and compliance auditing.**

TokenCheck has developed crowdsale smart contracts with a feature called ‘Fund released milestones’ into the smart contracts.



The fund release milestone smart contract feature will lock crowdsale funds up in milestones that are pre-defined by each cryptocurrency company.

When a company completes a milestone, the company will go through an auditing process to ensure the milestone is completed. Once

TokenCheck determines that the milestone is completed and delivered as the company outlined in their milestone roadmap, a portion of the crowdsale funds will be released to the company. This provides the

company a runway to complete the next milestone, while not releasing the entire sum of the crowdsale raise to the company in a single tier. This process mimics traditional investment seed



funding by releasing funds to the company in milestone theirs. It also protects crowdsale contributors and investors alike by preventing companies from conducting 'money-grabs' and failing to deliver on promised milestone deadline.

On top of the Xriba protocol Xriba has developed two state-of-the-art bookkeeping applications called Mastrobook and Cryptobook. Mastrobook caters to traditional businesses, while Cryptobook is simply Mastrobook with additional features that cater to cryptocurrency businesses. The Xriba applications use AI and OCR technology to enhance data-entry speeds and decrease data-entry by 72%.

Both applications include a web-based dashboard in which users, investors, and company supporters can view company financial records, examine expenditures and view the company's overall financial standing. In the case of Cryptobook, users will also have the ability to view the progression of the company in regards to the completion of milestones, release of funds, and details relating to milestone audits. This gives Cryptobook users and inside look on the status and financial health of the cryptocurrency company both a technological and financial standpoint

Xriba also has created XribaPay which automatically reconcile payments within Mastrobook and Cryptobook. XribaPay is the first payment platform that allow companies to conduct financial transactions in both cryptocurrency and fiat currency.

**Xriba is a next generation accounting protocol that provides transparency, accountability and bookkeeping services to cryptocurrency and traditional businesses.**



# Token details.

XRA tokens power the usage of the Xriba Protocol and services. Many of the Xriba services are unlocked by holding XRA tokens. The greater the usage and popularity of the Xriba Protocol and Xriba transparency services, the lower the circulating supply of XRA will become.

- Xriba tokens are the payment method for services offered on the Xriba protocol;
- Users must hold XRA tokens to become Xriba Members. As a Xriba member users can browse and explore company expenditures, keep up to date on milestone and audit reports, and will be notified once new detailed milestone company reports are released;
- When XRA are spent for services on the Xriba protocol, spent XRA tokens are locked up for 6 months, after which the XRA tokens are allocated for company expenditures.

Xriba is a founding member of TokenCheck Foundation. Holding TokenCheck Foundation member tokens, such as XRA, is equivalent to a membership card:

- **For companies to become members of the Foundation** and to offer transparency services, they must hold TokenCheck Foundation tokens, such as XRA.
- **For companies to receive transparency services** and potentially a transparency stamp, they must hold TokenCheck Foundation tokens, such as XRA.
- **For individuals** to access transparency products and services features offered by the TokenCheck Foundation, such as viewing a companies



finances or detailed audit reports, the individual must hold TokenCheck Foundation tokens such as XRA.

TOKEN NAME	Xriba
TOKEN SYMBOL	XRA
TOKEN PRICE	0,30 US\$
CIRCULATING SUPPLY AT LAUNCH	109,500,000
SOFT CAP	US \$10,000,000
HARD CAP	US \$19,465,500
TOTAL SUPPLY	275,000,000



<https://t.me/xriba>



# 2. Business Purpose.

**The cryptocurrency and ICO boom have been a paradise for ICO start-ups. While traditional fundraising via venture capitalists is time intensive and at times bureaucratic, the ICO paradigm allows large amounts of funds to be raised quickly, with little transparency or accountability required by the ICO start-up, a phenomenon identified by many cryptocurrency professionals including Vitalik Buterin,<sup>1</sup> leaders of crypto syndicates and many others.**

The current ICO model allows ICO start-ups to access all funds immediately after the fundraising process, independent of any milestones reached or progress demonstrated.

Meanwhile, the traditional venture capitalist model releases funds in tranches. After each funding round progress is audited, use of funds is analyzed and the product is reviewed. When the milestone audit is successfully passed, the next tranche of funds is released. This loop continues over multiple funding rounds and keeps the team motivated - and accountable for the funds they receive.

Contrast this with the current state of the cryptocurrency sector and its lack of transparency in how ICO funds are spent. One could argue that raising funds from the public comes with great responsibility with regards to transparency and accountability.





At Xriba we believe that bringing much-needed transparency and accountability to the cryptocurrency space will help to professionalize and strengthen the sector. We believe that the current ICO and funding model needs to mature to protect contributors keep ICO companies accountable and motivated long term.

Xriba has identified several pillars of transparency and accountability:

**1. The milestone-based release of funds:** The startup will no longer have immediate access to 100% of the raised funds. Instead, funds will be released based on milestones. The startup proposes a milestone-based release of funds, based on the required budget to achieve each major milestone. This fund release schedule is detailed in the startup's whitepaper and reviewed by the potential contributor during their due diligence process. Xriba will provide milestone-based smart contract templates and technical assistance for the startup to set this up correctly. The smart contract is then audited to ensure its validity and immutability.

**2. Financial and technical audits:** When the startup announces to have reached a major milestone, a financial and a technical audit are performed by an independent auditor. The financial audit checks the effective use of funds and the technical audit checks the development progress based on the predefined milestones. A positive audit score leads to the release of the next tranche of ICO funds. A negative score triggers a "milestone redefinition" process during which the startup can request to change the schedule for funds to be released; this request is then reviewed by the independent auditor. In extreme cases, when milestones were repeatedly missed, or no significant progress could be demonstrated, the remaining funds are distributed back to the ICO contributors. The refund process is a fail safe in case the startup was not realistic about its roadmap and milestones. All financial and technical audits are published to provide full transparency.





**3. The Token Checker dashboard:** A dashboard is made available to the public by Xriba. The Token Checker dashboard allows for:

- **Monitoring of all transactions,** spendings and potential revenues of the startup.
- **Monitoring of the startup's milestone history,** including all audit scores and detailed financial and technical audit reports for all past milestone.

Xriba's Token Checker dashboard will provide the public with much-needed objective metrics to evaluate a startup's technical progress and financial integrity. KYC of funding wallets, AI-based tagging of transactions as well as OCR-technology for invoice/receipt scanning are applied for maximum transparency while minimizing the startup's time spent for bookkeeping.

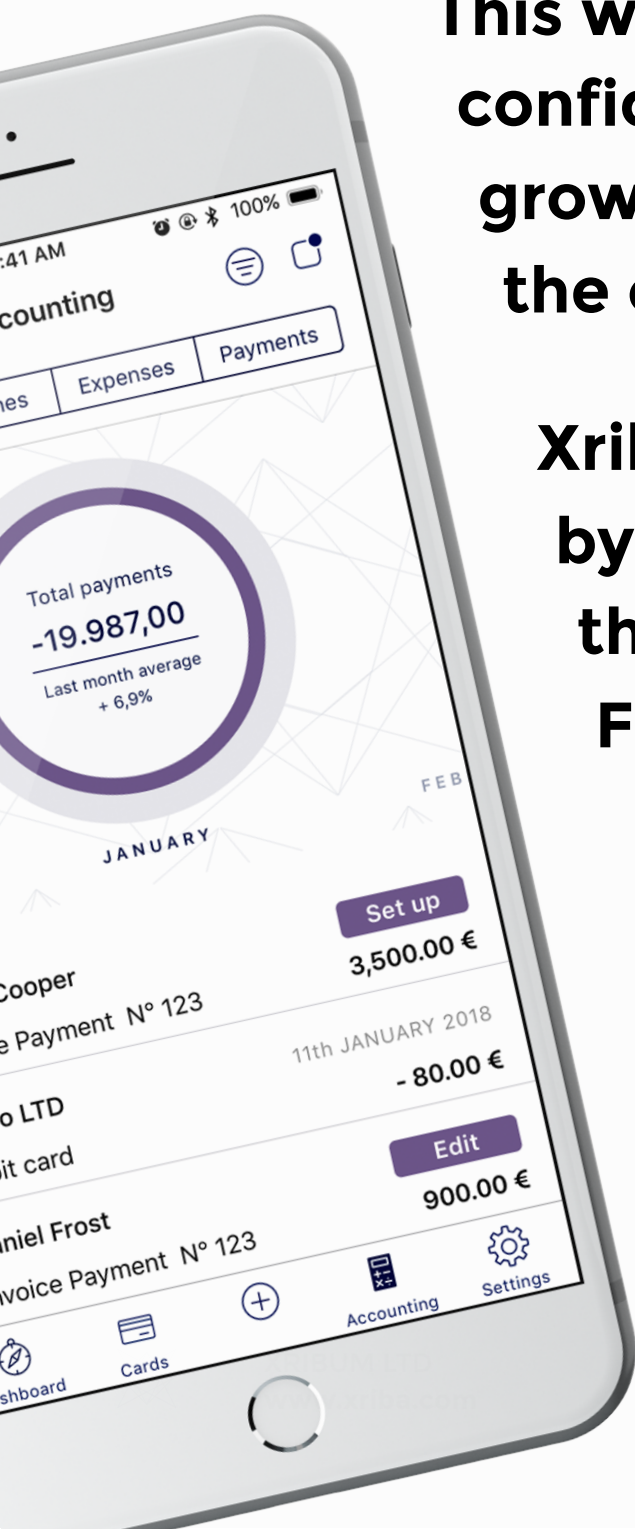
**4. The TokenCheck Foundation:** Xriba is the founding member of the non-profit TokenCheck Foundation and will deploy considerable resources to its creation. TokenCheck is a group of organizations dedicated and able to bring accountability and transparency to the cryptocurrency sector. TokenCheck will provide a wide range of services and products such as standardized due diligence checks on the team, partners and advisors or run technical and financial milestone audits. Startups that are willing to be transparent and accountable for the publicly raised funds can decide to become a Partner of TokenCheck at any point in time. Fees for the services provided are fair and transparent. Furthermore, TokenCheck will publically reach out to startups to find out if they are willing to be transparent and accountable for the publicly raised funds. Each startup's decision, yes or no, is published on the TokenCheck Foundation website.



**The second generation of ICOs based on the four pillars, will be more transparent, have more engaged teams and will have more objective metrics about the startups' progress.**

**This will lead to more confidence, more sustainable growth and a strengthening of the overall sector.**

**Xriba will lead by example by being the first Partner of the TokenCheck Foundation.**



# 3. Problems Addressed.

## 3.1 Fund Release Process.

The traditional funding process involves transparency and accountability at every turn. Typically, when venture capitalist funds or angel investors invest in a company, funds are released over time, as the start-up reaches milestones. In addition, traditional companies often work together with their seed investors, becoming completely transparent about expenses and expenditures that they incur along the way. The investors may not have a say in what the company spends their finances on, but they are aware of the expenditure. If a traditional company misses a milestone, then their funding is pulled or withheld until they hit the milestone, or a new milestone agreement is made, and the company is back on track.

One could argue that raising funds from the public comes with the responsibility of being transparent with and accountable for these raised funds. However, the cryptocurrency space is completely lacking this milestone-based funding process. The current model of ICO start-ups is to seek out funding from friends and close circles (private presale), then seek out a significant portion of their funding from the public in an ICO (public pre-sale and public ICO). This process is positive in many ways, for example it entails much less bureaucracy and faster access to funds. However, an aspect that has proven to be a weakness of the current ICO model is that ICO start-ups have access to 100% of the funds raised immediately after ICO completion. At no point does a start-up require full access to 10 million, 30 million or even 50 million US dollars.



Having access to large funds can lead to improper spending, increased burn-rates, lack of motivation and progress as well as a plethora of other problems.

Xriba has developed a milestone-based fund release system via Ethereum smart contracts that keep companies accountable for their planned milestones. When ICO start-ups use Xriba's milestone-based smart contracts, they can propose a fund release schedule in the white paper based on their milestone timeline and projected funds required to achieve said milestones. In this way a company can strategically plan out how much funding they would need to reach each milestone. The public reviews this schedule and writes it into a smart contract, which is then audited by an independent auditor. When the start-up successfully reaches a milestone, more funds are released to fuel the company to reach the next milestone. Start-ups which utilize this milestone-based smart contract will have the best intentions for both the start-up and the ICO contributors.

## 3.2 Transparency.

We define transparency as the right of the public to receive information about the use of ICO funds and the progress of the project, provided in a way that is open to all for verification.

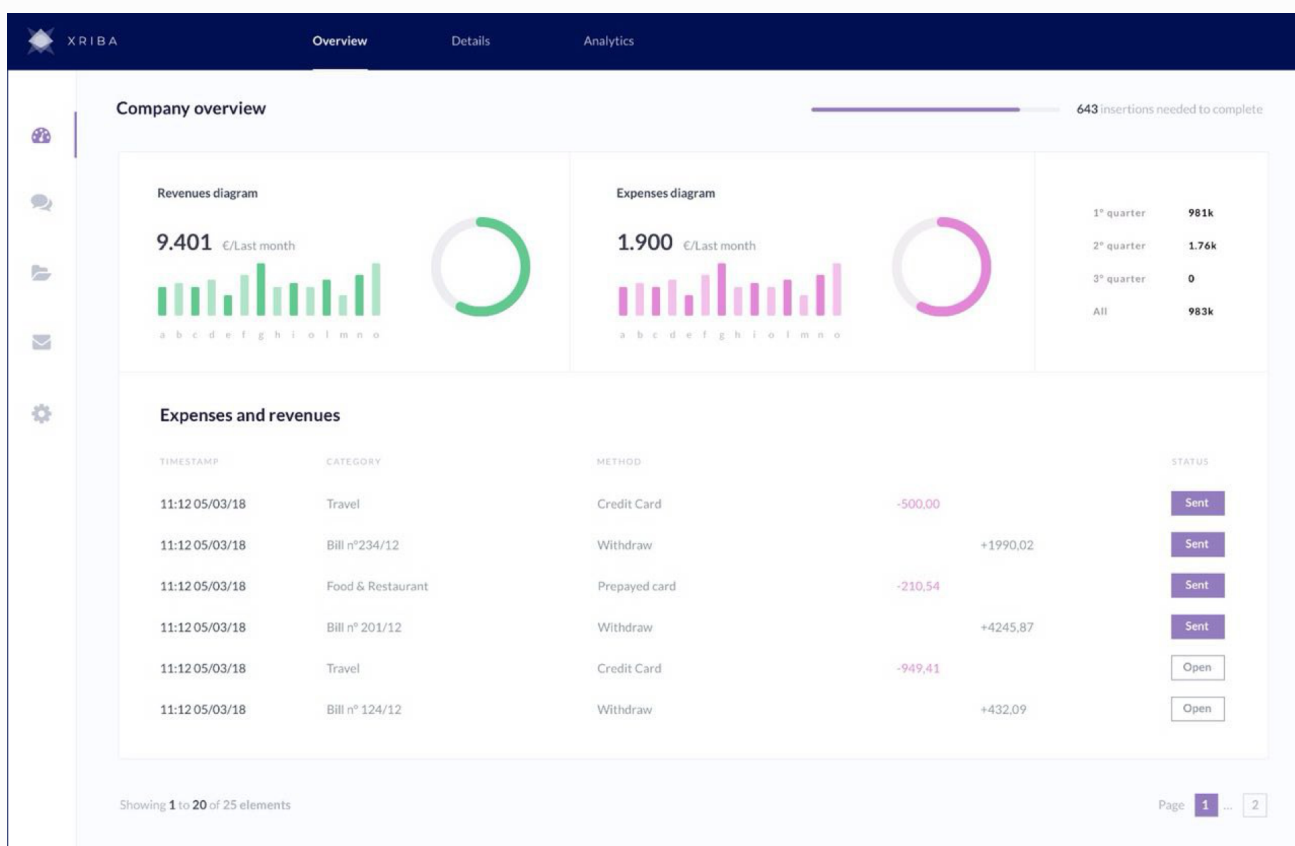
In traditional business, companies work together with their seed investors to ensure that they are not incurring any unnecessary expenditure. The traditional model has the seed investors very much involved with the company and aware of its inner workings. This process should be mirrored when funds are raised from the public.

Currently, expenditure and the financial standing of ICO start-ups are unknown to the public and ICO contributors. Methods of evaluating cryptocurrency start-ups are based on the team, advisors, technology and



planned roadmaps, are largely speculative and lack the concrete information needed to assess a company's progress and success.

Xriba provides the public with the Token Checker dashboard allowing ICO contributors and interested parties to properly evaluate and assess the start-up's financial standing. Traditional and cryptocurrency companies will use Xriba to record revenue and expenditure for the public to assess. Of course, there are privacy control features available to protect sensitive company data.



*Xriba's AI-based Token Checker allows for full transparency of the ICO start-up expenses and financial standing*



## 3.3 Accountability.

Accountability is the obligation of an individual or organization to account for its activities, accept responsibility, and disclose the results transparently. It also includes responsibility for capital or other entrusted property.

Arguably, being accountable for funds collected from the public is a moral responsibility for ICO start-ups. This entails:

- Accounting for business activities in a specific time frame, i.e. between two defined project milestones;
- Accounting for the use of the funds;
- Allowing independent audits to access data on the progress made;
- Allowing independent audits to assess the use of funds.

Xriba has developed products to bring accountability from the traditional business world to the cryptocurrency sector with the help of smart contracts:

- By establishing milestone-based ICO funds release, token sale companies are obliged to regularly demonstrate efficient use of funds and real-world progress;
- By utilizing Xriba's milestone-based smart contracts, start-ups are less inclined to alter milestones and make ambitious promises that cannot be fulfilled in the timeframe given by the company;
- In extreme cases in which milestones are repeatedly missed, or significant progress could not be demonstrated, the remaining ICO funds can be distributed back to the ICO contributors.



## 3.4 Costs, Efficiency and Speed.

In business and cryptocurrency a lot of time is wasted on financial transactions and accounting: Using banking services, accessing online banking, entering beneficiaries data, balancing and managing invoice payments, salaries, and expenses. Time dedicated to the administrative aspects of business represents an unnecessary cost for the company that can today be greatly reduced by applying relevant technology such as OCR, AI, and blockchain.

Xriba's accounting solution is already used by over 10,000 clients, seamlessly integrating with corporate IT systems combining all accountancy needs.

Furthermore, Xriba allows businesses to accept cryptocurrency payments. To truly globalize blockchain and cryptocurrency, traditional businesses must be able to easily accept cryptocurrency in exchange for their product or service. But current accounting software does not allow this level of flexibility, especially when it comes to reporting, which has blocked most businesses from accepting cryptocurrency. Xriba now provides a purpose-built corporate cryptocurrency wallet in which accounts can be balanced, and crypto-transactions can be made in values equal to fiat currencies.

There are multiple benefits for businesses accepting cryptocurrency: transactions between companies can now happen within minutes rather than days, international business payments can be done at a fraction of the cost and speed, and of course consumers can pay for products and services in cryptocurrency, thereby opening up the payment stream of the future.



# 4. The Solution.

**In this chapter, the four pillars of accountability and transparency will be described. Furthermore, a simple process will be outlined to establish accountability and transparency in a sustainable way.**

## **3.1. The Four Pillars of Transparency and Accountability (T&A).**

### ***Pillar 1: Milestone-based funds release.***

1. To foster accountability funds collected during ICO are distributed to the company in tranches, rather than in full, and linked to milestone achievement;
2. A schedule detailing milestones and the amount of funding to be released will be proposed by the company raising the funds and detailed in the white paper;
3. The fund release schedule is reviewed by the community;
4. The fund release schedule is written into the ICO smart contract, Xriba will provide smart contract templates and assistance for the start-up to set up their milestone- based fund release smart contract technically;
5. Templates and technical assistance will be provided;
6. The milestone-based fund release smart contract will be audited before the ICO ensure its validity and immutability;
7. After the ICO, when the company indicates that a milestone has been reached, a technical and financial audit is performed before the next tranche of funding is released.





## ***Pillar 2: Financial and technical audit reports.***

1. There are many complaints about the lack of objective metrics to evaluate performance and progress of companies in the blockchain sector;
2. Independent audit reports will provide an objective source of information about companies and their progress;
3. A financial and technical audit will be performed by an independent auditor when a company indicates that a predefined milestone has been reached;
4. Both audits will be scored on a scale of 0 to 100;
5. Achieving a score of 80 and above will unlock the next tranche of ICO funds according to the fund release schedule;
6. When both audits have been successfully passed, the next tranche of ICO funding is released;
7. A score under 80 does not release the next tranche of funds and triggers the milestone redefinition process during which the start-up can request a change to the time-frame in which funds are released;
8. In extreme cases when milestones have repeatedly been missed, or no significant progress could be demonstrated, funds are distributed back to ICO contributors;
9. All financial and technical audit results will be published to provide full transparency to the public.

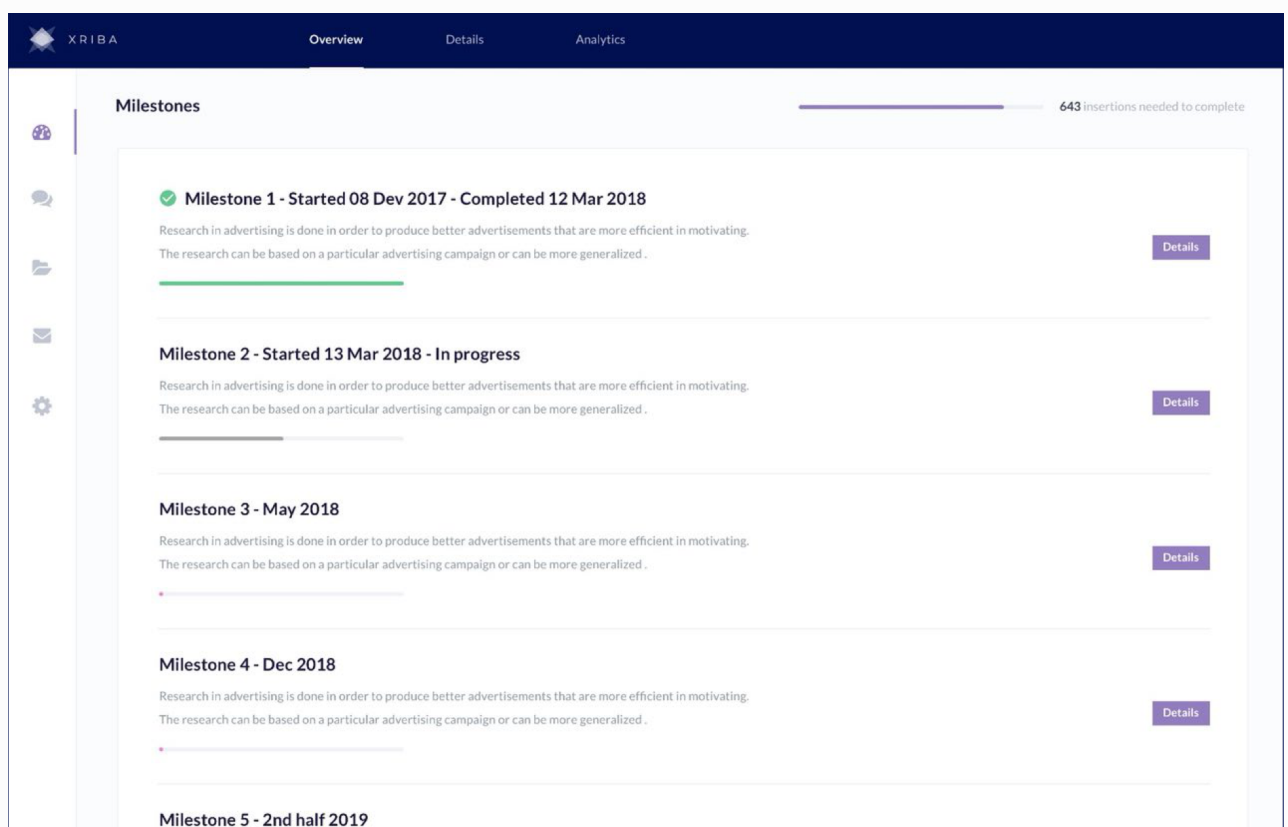
## ***Pillar 3: The Token Checker Dashboard.***

1. There is a lack of transparency about ICO start-ups in the cryptocurrency space;
2. The public needs objective metrics about the technical progress and financial standing of ICO start-ups, as well as their progress and audit history;
3. Xriba's Token Checker Dashboard is a solution to provide the community with much-needed real-time transparency for the companies' financial standing and technical progress. It records milestone history, including all audit scores and detailed financial and technical audit reports;



#### 4. Several technologies are applied:

- Blockchain: Recording company transactions, spending and potential revenues on the public ledger;
- Artificial Intelligence: Automatically tags corporate transactions based on machine learning algorithms;
- Mechanical Turk: Supports and optimizes the automated AI tagging process by providing human feedback;
- OCR (Optical Character Recognition): Automatically detects the content of invoices, receipts, etc;
- Decentralized Wallet: A corporate cryptocurrency wallet which can be accessed via a smartphone;
- KYC;
- All while minimizing the start-up's accounting cost.



*The Token Checker Dashboard shows the startup's milestones and progress as well as all audit scores and past audit reports.*



## ***Pillar 4: The TokenCheck Foundation.***

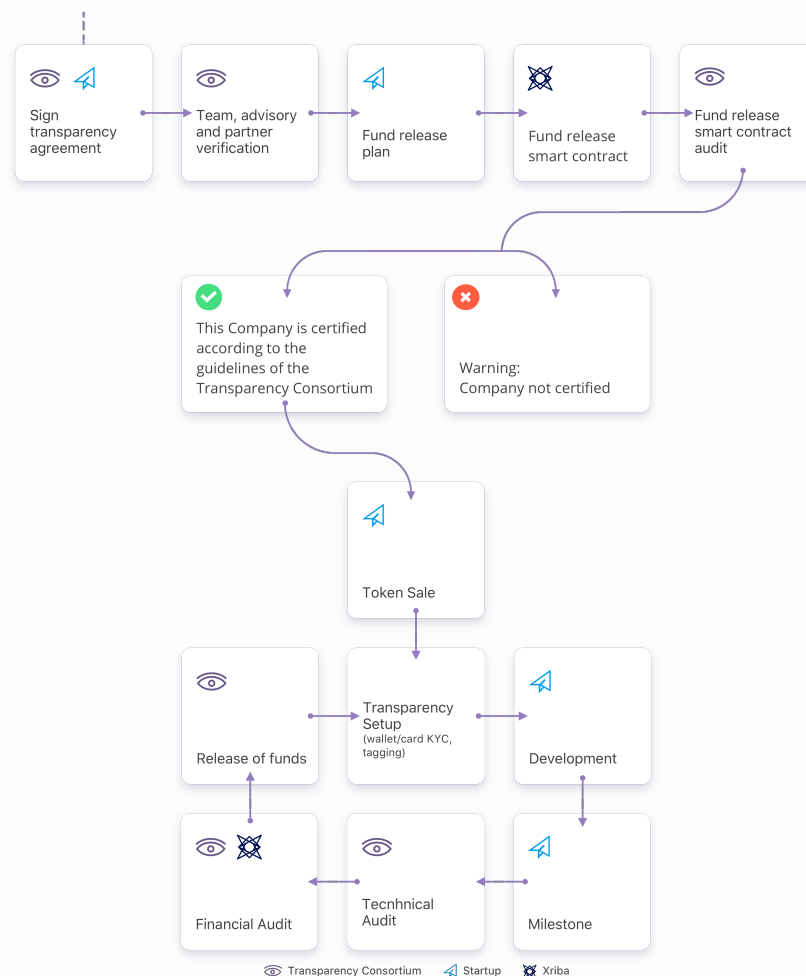
- 1.** Along with many others, Xriba has identified a lack of transparency and accountability in the cryptocurrency market and has acted by becoming a founding member of the TokenCheck Foundation, and will deploy considerable resources for its creation;
- 2.** The purpose of the TokenCheck Foundation is to provide products and services to establish transparency and accountability in the cryptocurrency space;
- 3.** The TokenCheck Foundation is a collection of organizations dedicated and qualified to bring transparency and accountability to the cryptocurrency space;
- 4.** The TokenCheck Foundation will work together with cryptocurrency companies and provide independent third-party financial milestone audits (technical and financial), smart contract templates, technical and strategic support about milestone strategy, team and partner background checks as well various other services for ICO start-ups;
- 5.** Xriba dedicates its resources and uses its technology to provide the TokenCheck Foundation's main products and services with the aim of bringing transparency and accountability, protect cryptocurrency users and ultimately strengthen the blockchain space, by reaching out to start-ups to ask whether they are willing to be transparent with and accountable for publicly raised funds. Any start-up can join the TokenCheck Foundation at any point. For example, Xriba will power financial transparency for clients of the TokenCheck Foundation and will provide smart contract templates for milestone-based ICO funds release;
- 6.** Each start-up's decision, whether yes or no, is published on the TokenCheck Foundation website and fees for the services provided are fair and transparent.



## 3.2 The Transparency & Accountability Process.

The Transparency & Accountability Process is a straightforward series of steps. The different steps require either the start-up, Xriba or the TokenCheck Foundation to perform a predefined task.

The graphic below outlines the mandatory steps for all TokenCheck Foundation clients to guarantee minimum levels of transparency and accountability. Additional TokenCheck Foundation services, such as insuring ICO funds and life insurance for the ICO leadership team as well as various other services, are optional.



*The Transparency & Accountability Process*



## ***Signing the Transparency Agreement.***

The company signs the TokenCheck Foundation Transparency & Accountability agreement and therefore agrees to carry out all steps of the Transparency & Accountability Process.

## ***Legal & Compliance Auditing.***

The TokenCheck Foundation will double-check legal opinions provided by the start-up or provide legal opinions to ensure that:

- The Company is going to be compliant with the rules of the country in which it is going to operate;
- That the tokens that it is going to issue are compliant with authority regulations.

## ***The team: Advisor & Partner Verification.***

Each team member, business partner, and all official advisors will be individually verified by the TokenCheck Foundation upon joining. The TokenCheck Foundation will reach out and verify everyone using KYC protocols and open communication. The results of the verification process will be made public for the community to see.

## ***Fund Release Plan.***

Before the ICO begins, each company working with the TokenCheck Foundation will configure the company milestones and funds to be released upon completion of each milestone (fund release schedule). This is done in the same way that a company configures token allocation or ICO allocation that is displayed on many company's ICO pages and white papers.



The start-up will evaluate what percentage of ICO funds are required to complete each milestone. Once the fund allocation per milestone is decided by the start-up, either the start-up alone or the start-up along with assistance from the TokenCheck Foundation will implement the milestone and fund parameters into the ICO smart contract (milestone-based fund release smart contract).

### ***Milestone-based fund release smart contract.***

Writing secure smart contracts is an obstacle for many cryptocurrency companies. They struggle locating developers who can write them, then after the smart contract is written there is the hurdle of locating a reputable third-party to audit the smart contract code.

The TokenCheck Foundation will provide several smart contract templates that are pre-approved and will lay the groundwork for a company to structure their ICO. These smart contract templates will have the fund-release milestone and refund mechanisms built into them so that start-ups can easily configure their milestones to release the appropriate amount of funds required for each milestone. This ensures that the milestone achievement has been completed and that the funds required for the next stage of development will be released.

### ***Fund Release Smart Contract Auditing.***

To protect ICO participants and the company alike, each ICO smart contract will be subject to stringent audit and review procedures to ensure the safety and security of the smart contract. The TokenCheck Foundation will audit these smart contracts to ensure that there are no 'backdoors', that the fund milestone release mechanism is appropriately implemented, and that the refund mechanism is in place to protect the ICO contributors. The smart contract audit will be performed by the TokenCheck Foundation.



## ***ICO.***

The start-up then performs an ICO based on the audited milestone-based fund release smart contract.

## ***Development.***

After the ICO the startup begins or continues the development process.

## ***Transparency Setup.***

To ensure transparency there is a necessary set-up process with the following guidelines:

1. Only directors and delegates are permitted to spend ICO funds;
2. Individuals that are allowed to spend ICO funds need to KYC;
3. The KYC data is linked to specific ICO wallets and debit cards that the individuals have access to;
4. All expenses from ICO funds need to be supported by a document (receipt, invoice, etc.).

### **One-time Transparency Setup steps:**

1. The company uploads the required KYC documents to the Xriba app: certificate of incorporation, memorandum of association, registration of members, registration of directors (documents vary by country);
2. Additionally, all directors and delegates that have the right to make payments from the start-up ICO wallet(s) will have to perform a KYC process;
3. KYC verification will be performed by the TokenCheck Foundation;
4. The company will then connect the corporate wallets to KYC'd directors and delegates in the Xriba app. Again, only directors or delegates have the right to make payments from the business wallet;



5. When payments are done from one of the ICO wallets, the user is asked by the Xriba app to provide/upload a document that justifies the payment (invoice, receipt, contract, etc.);
6. OCR and AI-based auto-tagging will be applied to the provided documentation to make this process simple and quick;
7. In the same way, the company will also have a debit card for each KYC'd director or delegate. When payment is made from a debit card, the user will be asked to upload a file that justifies the payment;
8. The receipt can be easily uploaded by taking a picture in the Xriba smartphone app.
9. The company can reconcile payments with documents that justify the expenses until the next milestone audit;
10. The Xriba app shows all payments that need to be reconciled. This view is also available to ICO contributors;
11. For the company to pass the financial audit at each milestone, all payments must be reconciled with a supporting document.

## ***Milestone Audit.***

1. When a milestone is completed, the company will contact the TokenCheck Foundation and request a review of the next milestone funds to be released;
2. The TokenCheck Foundation will have a committee composed of three members (one legal, one financial, one technical) and will conduct an audit on the milestone to ensure that the promised technology and other requirements are complete;
3. The TokenCheck Foundation will give the company a score on a scale of 0-100 based on how much of the milestone was fulfilled;
4. If the company scores below 80 then the funds will not be released until the company can complete a score of 80 or higher;
5. After each review, a detailed audit report will be published. This will provide both the start-up and the general public with independent information about the audit results.





## ***Milestone Redefinition.***

- 1.** If a milestone is missed, the Company can contact The TokenCheck Foundation to change the milestone program and request a different time-frame for funds to be released (Milestone Redefinition);
- 2.** The TokenCheck Foundation will conduct an audit of the roadmap and progress achieved. For start-ups, it is normal and sometimes expected to change plans as experience and learning increases. Redefining milestones can be a normal part of a start-ups progress;
- 3.** If all signs show that the start-up is well meaning and dedicated to creating value, a Milestone Redefinition is accepted;
- 4.** After each redefinition, a detailed list of reasons why the milestone redefinition was approved or not will be published. This will provide both the start-up and the ICO contributors with information as to why the milestones were redefined.

## ***Technical Audit.***

The start-up actively informs the TokenCheck Foundation when a milestone is reached.

- 1.** Once a company reaches a milestone on the roadmap, the technological achievements of that milestone will be evaluated. For example, a company states that by the start of a given month, they will have completed a beta wallet, test net, and a dashboard with several predefined features will be evaluated on these aspects;
- 2.** If the technical audit finds that the technology is indeed what the company promised to achieve, then the next tranche of ICO funding is released for the achievement of the next milestone. This ensures that start-ups remain transparent and that the technology released is indeed what the start-up promised to release;
- 3.** By performing technology audits at each milestone, we can prevent start-ups from marketing a vision with unrealistic timelines and projections.



The technology audit will keep companies accountable for the milestones they published during the ICO.

## ***Financial Audit.***

When a milestone is reached, a financial audit of the financial standing of the start-up is performed.

1. Xriba will provide apps and dashboards to allow companies to easily record their company expenditures, income, and financial holdings the same way traditional businesses would use software such as QuickBooks® to log the start-up's bookkeeping;
2. This software will log all company transactions on the blockchain, connecting each payment with an accounts document (invoice, receipt, etc.), creating an auditable and verifiable financial record of the start-up that can be viewed and evaluated in the same way a traditional company will release quarterly financial statements outlining their company's financial standing;
3. This process ensures that funds raised from the public are spent responsibly.

## ***Funds Release.***

1. The fund release schedule is proposed by the ICO start-up;
2. The start-up announces that it has reached a predefined milestone;
3. A financial and technical audit is performed, both are scored on a scale of 0-100;
4. If the company scores below 80 for either audit then the funds will not be released until the start-up can either complete the technical milestones or justify its financial spending with supporting documents;
5. A score of 80 and higher releases the funds for the next milestone;
6. For the funds to be released, there must be three signatures on the Smart Contract transaction. The first signer is the financial auditor, the



second signer is the technical auditor, and the third signer is the ICO start-up.

### ***Milestone Dispute.***

- 1.** If the start-up requests the next milestone funding release, but the milestone is not reached or was reached but not approved for any reason, the company will have an opportunity to dispute the decision;
- 2.** The start-up will have an open hearing with the TokenCheck Foundation and can state their case as to why the milestone was not reached, or why they believe that the milestone achievements should be approved;
- 3.** The dispute hearings are in place to protect the start-up holding the ICO, so that circumstances surrounding missed milestones can be openly discussed. Underestimating development efforts and strategic changes in direction are part of the development process of a start-up;
- 4.** The TokenCheck Foundation will work with the start-up to restructure the milestone funding schedule, and/or release the appropriate funds as well as grant the start-up more time to complete the milestone;
- 5.** The Company will have 3 opportunities to ask for a milestone redefinition. If the third redefinition is disallowed the fail-safe procedure of the smart contract will activate the and the remaining ICO funds will be distributed back to ICO contributors.



# 5. The TokenCheck Foundation.

**This chapter will outline the purpose, products, and services as well as the membership and fee structure of the TokenCheck Foundation.**

## 5.1 Purpose.

The purpose of the TokenCheck Foundation is to bring the same accountability and transparency that is present in traditional business to the cryptocurrency space. The TokenCheck Foundation will work together with cryptocurrency start-ups and provide independent third-party auditing as well as many other services, to provide an environment in which they can safely reach their planned milestones. At the same time, the TokenCheck Foundation protects ICO contributors via the milestone-based ICO model.

## 5.2 Products and Services.

When a company decides to hold an ICO and joins the TokenCheck Foundation, the first task of the TokenCheck Foundation will be to verify



that all the team members, partners and advisors are legitimate, and are involved in the capacity that the company portrays. The TokenCheck Foundation will aid companies in structuring ICO smart contracts, milestone fund-release configuration, and smart contract reviews to ensure that companies hold not only the best interest of the start-up but also of the contributors from who they are raising funds.

### **TokenCheck Foundation will offer:**

1. Team Member, Partner and Advisor Verification;
2. Company Legal and Compliance Auditing;
3. Smart Contract Templates;
4. Smart Contract Technical Assistance;
5. Smart Contract Auditing;
6. Milestone Configuration;
7. Technology Auditing;
8. Financial Auditing;
9. Milestone Accountability;
10. ICO fund allocation;
11. ICO fund disbursement;
12. ICO refund mechanism;
13. Milestone reviews and analysis.

## **5.3 Membership.**

TokenCheck has three types of members which are outlined below.

### ***Corporate Members.***

Corporate members of the TokenCheck Foundation are organizations that are dedicated, bringing products, services and/or manpower, and are



qualified to bring transparency and accountability to the cryptocurrency space.

**Types of companies that may become members include but are not limited to:**

- Financial auditing companies;
- Law firms;
- KYC companies;
- Smart Contract development and auditing companies;
- Technical auditing companies;
- Insurance companies;
- Marketing firms;
- Crypto funds;
- Venture Capitalists.

A company can apply to become a Corporate Member via the TokenCheck Foundation website. Being a Corporate Member allows an organization to provide products and services that help crypto start-ups to be more transparent and accountable. Corporate members are required to purchase and hold 50,000 XRA in the organization's wallet as a Membership Holding. If the organization wishes to leave the TokenCheck Foundation, the Corporate Member will return the Membership Holding and receive the corresponding value in ETH.

***Partners.***

Partners are ICO start-ups that wish to be transparent and accountable about their ICO funds. These are start-ups that hold the best interests of ICO contributors and strive for transparency in their financial standings, technological advancements, team members, partners, advisors etc. The TokenCheck Foundation will aid Partners in the conduction of ICO, and help clients remain transparent and accountable throughout the achievement of milestones.



## ***Individual Members.***

Individual Members are individuals (contributors and/or members of the public) that wish to stay informed about Partner's progress and transparency. Individual Members will have access to features and information that is not available to the general public. This information includes but is not limited to:

- Detailed milestone reviews of Partners;
- Push notifications of milestone review publications;
- Access to dispute details of Partners;
- Access to view and explore the financial standings of Partner.

The TokenCheck Foundation will implement push notifications in email format, SMS format, and other formats to give first notice to its Members that a milestone review or redefinition has been published. This is in place to give TokenCheck Foundation members notice as soon as a review is published so they can act accordingly with regards the content published in the milestone review. The TokenCheck Foundation understands that the reviews will be made public, however the advantage of membership is first notice regarding published Milestone Reviews.

To become an Individual Member, the individual can register on the TokenCheck Foundation platform. This process involves the individual contributing a membership deposit of roughly USD 25.00. This deposit is converted to an index of the TokenCheck Foundation's Corporate Member tokens. A user can sell the token holdings at any time to recoup the \$25.00 membership fee if the user wishes to discontinue the membership. If an individual no longer holds the required number of Corporate Members tokens, then the individual's membership will be revoked. The individual can repurchase the tokens in a single click using the TokenCheck Foundation platform, thereby reinstating their membership.



## 5.4 Fees.

When a start-up becomes a TokenCheck Foundation Partner, the company will go through a vetting process during which the TokenCheck Foundation will review the company's corporate set-up, team, partners, advisors and milestone structure. Based on the information collected a fee will be proposed that will be in line with the number of services and the complexity of the projected milestone process.

For example, a start-up with three team members, two advisors, one partner and three milestones will require less consultation and auditing time compared to a company that has fifteen team members, eight advisors, four partners, and ten milestones.





# 6. Xriba.

**Xriba is the new standard for financial integrity, promoting continuity and accountability by utilizing blockchain technology. Xriba is a universal protocol that allows transaction rules and all payments to be registered, all written within the blockchain. The service offered to the end user will be a multi-featured dashboard that includes itemized company financial records auditing. Xriba integrates bookkeeping, payments and a corporate wallet for both traditional and blockchain companies. For cryptocurrency start-ups, it will include a step-by-step status regarding milestone progress, provide access to view audit details and company ratings at each milestone, and perform analyses on company's usage of funds and more.**

**Xriba provides a decentralized accounting protocol in which companies can record their accounting activity. Companies can also build custom applications on the accounting protocol or use Xriba's ready-made accounting applications built into the Xriba Protocol.**

## 6.1 Motivation.

The project stems from the apparent lack of transparency and accountability in the cryptocurrency sector. Gianluca Massini Rosati, the CEO, has experience in the business tax consulting sector: an entrepreneur in Fintech, energy, real estate, mentoring with a strong emphasis in his belief of financial transparency across all sectors. Gianluca is often seen on Italian television, and is viewed as the number one tax expert in Italy by the



Italian media. His business group spans five countries, employing over 150 people in more than 20 companies, bringing his 10,000-strong client base to the Xriba Protocol. Gianluca is dedicated to using his knowledge and expertise to strengthen the cryptocurrency sector, help protect ICO contributors and support ICO start-ups in being more transparent and accountable in their key early development.

## 6.2 Features.

### ***OCR Technology.***

OCR (Optical Character Recognition) = accounts automation. Thanks to optical scanning software automatically reading and processing invoices and documents, the time used for payments will be slashed by 72%. With the OCR system, Xriba will automatically be able to detect and read invoices, storing and archiving them by expiry date by learning over time. A business owner can simply scan invoices, receipts, and other financial documents to have the documents automatically entered into the bookkeeping software, saving the user hours of time performing data entry tasks.

The optical reader is based on OCR and IDR technology. The document is put through a preliminary procedure to improve the document quality, therefore increasing the likelihood of it identifying and recognizing characters. In this initial processing phase, it carries out the following actions:

1. Separates consecutive pages;
2. Automatically detects page orientation;
3. Corrects misaligned images;
4. Realigns text;
5. Corrects trapezoid distortion;
6. Corrects image resolution;



- 7.** Detects page borders;
- 8.** Whitens the page background;
- 9.** Removes blurring;
- 10.** Heightens color contrast in the document.

The next step is to correctly identify individual characters, therefore correctly identifying words. To give an example: The Xriba software can identify 'ACME Inc' but is not able to understand that 'ACME Inc' is metadata belonging to the 'vendor' (for example), to do this, you need IDR (Intelligent Document Recognition). Then, the concept of Artificial Intelligence begins. Artificial Intelligence is a series of algorithms helping the software correctly identify the metadata needed for the type of document (whether a purchase, supplier, vendor, data invoice, document total, etc.). IDR involves multiple engines as well as a Machine Learning system.

- 1.** Layout Analysis Engine;
- 2.** Logic Engine;
- 3.** Semantic Engine;
- 4.** Statistic Engine.

The first of these three is also the primary engine to be used in OCR systems, helping to identify and extract metadata from forms. The way it works is simple, it is a system of rules that 'tells' batch to extract the characters it recognizes from 'XX' to 'YY' coordinates. However, this system is adapted only to standard forms.

The second engine helps to identify Metadata requested through the LOGIC rules. Invoices are the most straightforward case, the document total should be the sum of the total income plus tax. With both the above and logical rules, the SYS can improve the probability of having correctly identified the metadata.



A further series of engines are then applied, the Semantic Engine is interlinked with a Natural Language Processing system which works to correctly identify and understand the written language with the help of the SYS, to unequivocally define an object that can represent a written word. The SYS recognizes the document type 'supplier invoice' or the words 'purchase invoice' or 'debit note', though of course this is not its only function.

Finally, by each word or group of words, a Statistics Engine identifies the probability that this is representative of the metadata that needs to be identified and, taking that into consideration, offers the user the data that with the greatest probability corresponds to the Metadata that was requested in the batch. The document total is a concrete example of how an AI system can correctly use these tools to identify Metadata: an 'anchoring' system is usually used, in which it identifies a keyword within the document (typically the description of the Metadata sought) and requests that the system search in its immediate vicinity for a value that contains those specified properties.

Therefore, the SYS could be instructed that the document total metadata is a numeric value characterized by a separator for thousands ',' and decimals '.' (Logic Engine), which typically is found at the foot of the document (Layout Engine), in the immediate vicinity of 'total' or 'document total' or 'total to pay' etc. (Semantic Engine) and should correspond to the sum of the metadata 'total tax' and 'total taxable income' (Logic Engine).

Based on these properties, the AI system identifies with what probability the data under analysis mirrors the requested metadata and contrasts it with possibilities from the other analyses, presenting the user with data that has the greatest probability of being the requested metadata. This is a simplified example to explain how IDR works.

Research can be broken down into 3 types, firstly in structured research the document type and the metadata that should be contained within the



document is clear to the system. In semi-structured research, the type of document is obvious, but the metadata may or may not be there. With non-structured research, the document type is not listed and nor is any metadata held.

This is where the Machine Learning System steps in, which by employing algorithms creates rules autonomously (one of those above for example) for that specific metadata (Semantic, Logic, Layout). In this case a person must identify the metadata to the SYS. Often in a real-life case the rules are linked to the supplier, so first, it identifies the supplier, then according to this information applies rules to identify other metadata.

This advanced Optical Reading System technology is already successfully available to thousands of traditional business customers. These companies that have not hosted an ICO use Xriba technology by the app "Mastrobook".

The Optical Reading System allows Xriba to reduce human influence in data by using devices, with over 70% taking from 3 minutes to 35 seconds on average to record a mechanical Turk incident. The Xriba applications have been conceived to carry out accounts validation with the highest level of automation possible with technology currently available on the market. Considering this, when discussing accounts there is a need to bear in mind that it is a process that cannot always be standardized, that involves thousands of different records and a wide a range of rules. For this reason, Xriba is designed to include various types of users in the process to guarantee quality of service while gradually reducing the need for human intervention. Therefore:

- 1.** A User who is not qualified can work within the Xriba, validating and integrating metadata identified by the Optical Reader;
- 2.** A qualified accountant validates and integrates the information generated by the Artificial Intelligence system;
- 3.** Finally, an accountant values KPIs provided by Xriba, and based on this provides a tailor-made consultation service to the client.



## ***AI Technology.***

The focus is to help to lower the total operational risk of human error with regards document misinterpretation, applying Text Analysis (Semantic Engine) after the Image Document Recognition phase. Convolutional Neural Networks are very powerful non-linear machine learning models that could easily reach tens of millions of parameters, which are hard to train and use in real-world scenarios. They set new standards for accuracy in classification tasks but cannot be put forward as the best general method for classification, especially considering that their training time is very long (5-6 days) and that they could easily overfit the data set.

Most recent methods in the Layout Engine include use spatial transformers, together with CNNs, to mitigate the lack of automatic generalization from the CNN of the affine transformation of the input image (e.g., rotation, shear, scaling, etc.), which is a common problem in document images. Two fast, robust feature extractors are being developed, and various classifiers were used with the aim of tackling this problem using different approaches.

### **Artificial Intelligence is harnessed for use in four areas of Xriba backend:**

- 1.** Automatically identifies the pertinent data from accounting docs;
- 2.** Generates information on financial/economic occurrences from the record of accounts;
- 3.** Client support;
- 4.** Analyses financial/economic data for various purposes.

The first point has already been discussed in depth, in the second, regarding the algorithms, a record will be provided from the accounts of financial/economic occurrences. Data identified by the OCR will also be explored in detail.



According to the type of document, the following will automatically be applied:

- Cataloguing costs and earnings in the accounts identified according to the accounting and fiscal regulations in force;
- Opening credit or debit notes from the client or supplier;
- The ability to deduct and detract these items;
- Adjustments to accruals;
- Linking account entries with the closure of these in the case of incoming funds or payments;
- Categorizing VAT according to the regulations in force;
- Etc.

The third aspect of the AI system is that it will automatically identify user issues which arise and will seek resolutions without Customer Care having to step in. A Machine Learning system is also in place which provides resolutions based on previous experiences supplied by Customer Care.

The fourth and final application is the most interesting and the most complex. It concerns structuring algorithms, which study the various patterns or habits the company may have (costs, invoices, time scales for payments and income, preference of products purchased, etc.) the algorithms can calculate:

- Predictive analyses;
- Solvency and credit rating indicators;
- Net income, stability, solidity, turnover, etc;
- Useful indicators for the company to optimize procurement, and the optimum markets/sectors in which to grow the business.

**These are only a few examples of practical applications of AI within the Xriba.**



## ***Mechanical Turk.***

The AI system is supported by a Xriba team validating the processing and extraction of the data from the scanned documents. This will automate the whole bookkeeping process and will help maintain its integrity. At the same time, the AI algorithms become more sophisticated thanks to the continuous machine learning process offered by AI.

By having the work of the AI and OCR technology continuously audited and checked by human intelligence, it ensures that the data extracted from the artificial intelligence and OCR technology is accurate and that no errors can slip through the cracks. If the Xriba mechanical Turk team detects an error, the team corrects it and updates the AI with the correction so that the AI will not make that error in the future. This further enhances the AI's learning process and ensures the quality of information that is processed by the AI technology.

## **6.3 Xriba Applications.**

### ***Xriba Protocol.***

The Xriba Protocol is an open, decentralized platform built on Ethereum that allows any company to record financial transactions, and to build financial tools such as the Mastrobook or Cryptobook applications on top of. The protocol allows a third-party application to query, record and audit any companies' financial standings within the Protocol utilizing a decentralized ledger. The Xriba Protocol is the decentralized answer to the fragmented accounting system in which a company's financial records may be in several different databases, owned by several different bookkeeping companies at the same time.

The Xriba Protocol provides open access allowing any company to record their financial transactions on a decentralized ledger. The Xriba Protocol also includes state-of-the-art bookkeeping technology such as AI to enhance bookkeeping speed and efficiency providing any company a





robust tool-set to either build a bookkeeping application, or to utilize one of Xriba's applications to record and track company finances.

## ***Xriba Dashboards.***

The Xriba Dashboards are web-based browsers that will allow users to browse, audit and evaluate a company's financial standing. In the case of cryptocurrency start-ups, the Xriba Dashboard will also provide insight to the company's milestone progression, locked and released crowdsourced funds, and be able to access technical audits and view third-party ratings that are based on their technological progression and use of crowdsourced funds.

### ***Traditional Business Dashboard: Mastrobook.***

The Mastrobook dashboard is intended for traditional companies that have not hosted an ICO. This dashboard will allow auditors, financial institutions and interested party's insights to the company revenues, expenses and more in an itemized and compartmentalized fashion. Users will be able to drill down and view itemized transactions and trace the flow of money throughout the company. This provides the real-time transparency that is lacking in traditional business, hence allowing conventional companies to access peer-to-peer financing in the future, which is typical of the blockchain environment.

### ***Cryptocurrency Dashboard: Cryptobook.***

The cryptocurrency dashboard has all the features of the standard dashboard but caters to companies that held an ICO. Since the company hosted an ICO, they will be subject to milestone-based fund release mechanisms, technology and fund-usage audits, and third-party assessments of the cryptocurrency company themselves. Users of the Cryptocurrency dashboard will have the ability to track company revenues, expenditures and view the company's progression



of milestones in real-time. They will also be able to view professional assessments and scores for each cryptocurrency start-up on the platform.

## ***Xriba Apps.***

The first uses of Xriba consists of two applications and one integration.

This first application is **Mastrobook** which will cater to traditional business and will allow them to accept cryptocurrencies while recording all transactions in the local fiat currency.

The second is the **Cryptobook** application that is a corresponding cryptocurrency version of Mastrobook. The main difference between Mastrobook and Crypto book is that Crypto book has some additional features that are exclusive to ICO start-ups.

Xriba is also built to be easily integrated with external payment platforms – both for fiat and cryptocurrencies payments. This feature allows to automatically reconciles payments within the books on Mastrobook and Cryptobook, saving time and costs for the customers.

One of these payment platforms is developed by Xriba sister company, Xriba UK Ltd – a Fintech software developer and payment provider based in London.

The name of this platform is **XribaPay**.

Thanks to the XribaPay smartphone app, accounts are quick to open and easy to manage. Opening an account only takes a few minutes, through the app for Android and iOS, the business owner will have constant access to their account to check balances and make transfers. With unlimited and secure payment services at their fingertips, business owners can make



unlimited transfers of funds without commissions on these transactions, paying only a small monthly fee, payment and accounts management for your company is all completely integrated. To grow faster globally, XribaPay will be able to work by itself connecting its innovative features (OCR + AI) to third party bookkeeping software through its API.

Thanks to optical reading ("OCR") of invoices and integration with Xriba applications bookkeeping software, Xriba applications reduce the time that each business owner dedicates to payments and the registration of invoices. It incorporates two fundamental values: speed and security.

### **Efficiency and speed are achieved thanks to integrated payment services:**

- **Immediate invoice and wage payment:** the account is linked to the main account management platforms and will automatically generate a series of alerts each day, upon payment deadline. With a swipe on his or her smartphone, the business owner can quickly decide whether to pay immediately or to postpone the payment. It is also possible to set general rules, such as paying wages automatically and on the same day of the month, or automatically by enabling the payment of specific suppliers upon the scanning of their invoice;
- **Emails to generate automatic payment:** The Xriba applications link an email address to every account where scans of PDFs, invoices, and documents, in general, can be sent, securely transmitted using asymmetric encryption keys. The scanned documents are automatically processed directly from the email address into the accounts;
- **Debit card:** it will be possible to associate one or more physical debit cards to the account that can be paired with a company employee and set up by the following parameters: daily and monthly cap, the category of expenditure, days/time. Payments can be made in Fiat or cryptocurrencies. Every time a payment is done by a debit card a



smartphone notification will remind the employee to upload a file or take a picture of the receipt that will be automatically reconciled with the payment in the books;

- **Virtual debit cards:** an unlimited number of virtual cards can be generated for use in online payments which can be set up just like the physical versions;
- **Bank transfers:** just like a regular account, payments can be made to other accounts in all currencies, reducing interbank exchange fees;
- **Bank statements in the primary currency:** all payments made and received in any currency will be included in a list of transactions recorded in the company's main currency so that they can be immediately registered in the books without the inconvenience of recording exchange rates in the petty cash book;
- **AI bookkeeping technology:** a business owner can simply scan invoices, receipts and other financial documents to have the documents automatically entered the bookkeeping software, saving the user hours of time performing data entry tasks.

Payments can be made in total security with just a few taps, as the petty cash book are online, without paying an administrative clerk or losing hours and hours of precious time. Not only that, you will have fast transfers and physical or virtual debit cards tailored to you and your employees. A statement regarding payments in the main currency is automatically and directly linked to the account (to the relief of your accountant). eliminating petty cash book costs. You will also be notified when an invoice needs to be paid, which can be confirmed with a simple "swipe" on your smartphone. We promise to create a user experience designed for business owners and the life of their company.



## ***Current Account.***

The XribaPay application host a classic bank account which the companies can utilize to operate. The automatic functions of the app will be associated with it. It is possible to credit the Fiat currency deposit account in Euro, Dollar, Pound and other major currencies. Fiat will be convertible into the main cryptocurrencies such as Bitcoin, Ether and Master Xriba (XRA) themselves (the tokens are used to access the service). All the automatic functions of the app for managing the corporate accounts will be associated with the current account. This will be the only account that the business owner can associate with other members of his or her staff.

## ***Smartphone Decentralized Wallet.***

Another of the main innovations that will be introduced to the market via the XribaPay applications is the concept of a local vault in one's smartphone. Each time a new company is added to the app network the system will create a central deposit account managed by XribaPay, the current account is a classic centralized account managed by the company that provides the service; the company vault can only be entered using the password known to the entrepreneur. A decentralized wallet can also be accessed via the business owner's smartphone, which will be called the 'company vault.' By having it located on the account owner's smartphone, this prevents any centralized control of company funds. For example, many users are familiar with cryptocurrency exchanges. The classic centralized cryptocurrency exchange is centralized and has control over the wallet's private key and thus the user's funds. If the exchange gets hacked, the funds on the exchange can be spent freely without the owner's consent.

With the account owners private key located in a decentralized location, only the account owner will be able to process cryptocurrency payments. This will help prevent against hacking, unauthorized use and expenditure of company funds. The dual nature of the account provides the utmost



flexibility to the business owner in managing their money in Fiat currencies or cryptocurrencies. This gives him or her the power to transfer values held in an account directly via their wallet in a secure manner.

## ***Cryptobook features.***

Xriba has identified a large discrepancy between the traditional financial markets and the cryptocurrency market. This discrepancy is transparency and accountability. In the traditional markets, companies are forced to be transparent with their venture capitalists and other financial supporters. This forced transparency breeds professionalism and diligence.

Traditional companies are subject to milestone released funds, financial examination and collaboration from their investors and financial supporters, and accountability to deliver on their investors and financial supporters.

**Xriba's Cryptobook will offer the same AI and time-saving features that Mastrobook offers and will include unique features that are exclusive to the cryptocurrency sector such as:**

- Wallet Ownership verified by Xriba's identity partners;
- Private transaction feature to conceal transactional details at the company's discretion from the general public;
- Dashboard to monitor usage of Crowd-sourced funds;
  - Display percentages of fund usages that goes towards:
    - Marketing;
    - Company Salaries;
    - Legal;
    - Operating Costs;
    - Product Purchases;
    - Etc.
  - Display Status on:
    - Stage of ICO;



- Stage of Milestones on Roadmap;
- Milestone Dispute status (If any).

Any user that holds a start-up's token and more than 150 XRA will be able to browse and view company expenditures. If a user logs onto the forward, as more companies move to be more transparent, and more tools arise around auditing and monitoring the Xriba Protocol, there will be more applications developed that will interact with it. To interact with the protocol, a fee will be assessed and paid in XRA tokens, similar to the way in which fees are assessed to open API's that developers build on.

### ***Private Transactions.***

Cryptocurrency start-ups will have the ability to conceal transactional data from the public on a transaction-by-transaction basis. This gives the company the ability to hide data from the public for which there might be privacy concerns.

There will be a \$5,000 service charge applied to any concealed transaction. Transaction concealment will enable start-ups to conceal the transactional data from the public and only reveal the transactional metadata to auditors, or those that have reached out to the start-up from the Xriba crypto product dashboard and have been specifically granted permission to view the transaction.

This will allow the start-up to retain transparency while protecting itself from the possibility of jeopardizing information with privacy concerns.

All fees will be paid in XRA tokens to Xriba.

## **6.4 Accessing the Xriba Protocol Services.**

To access the Xriba Protocol and utilize the services offered including browsing companies' financial standings, users will have to hold XRA



tokens. The XRA tokens may be available on the open market or will otherwise be available for purchase by credit or debit card directly on the platform.

## 6.5 Sources of Revenue.

Xriba has multiple streams of revenue that will ensure success and longevity of the protocol. These streams of revenue include:

### ***Platform Services.***

Xriba's XRA tokens are the currency of choice for utilizing the Xriba Protocol and Xriba applications. Services rendered, additional application features and fees that occur from within the application and protocol will be paid in XRA tokens.

### ***Purchasing tokens from within Xriba applications.***

Users who are using the applications and do not hold any XRA tokens will be able to purchase XRA tokens within the same applications. Users who purchase XRA tokens from the application will pay a 20% premium on the market price per XRA token. This is a convenience charge that will not only make it easier for the consumer to acquire XRA tokens but will also serve as a revenue stream for Xriba.

When a user purchases XRA tokens from within Xriba's applications, Xriba will sell the corresponding amount of XRA tokens from the company holdings of XRA or will purchase them from cryptocurrency exchanges.

### ***Use of the Xriba Protocol by third-party applications.***

The Xriba Protocol is developed to encourage third-party application development. Besides the three applications developed by our group of companies (Mastrobook, Cryptobook and XribaPay), moving forward, as





more companies move to be more transparent, and more tools arise around auditing and monitoring the Xriba Protocol, there will be more applications developed that will interact with it. To interact with the protocol, a fee will be assessed and paid in XRA tokens, similar to the way in which fees are assessed to open API's that developers build on.

### ***TokenCheck Foundation Support.***

Xriba is one of the core members of the TokenCheck Foundation. The TokenCheck Foundation will have Corporate Members from the legal, financial, insurance and technical sectors. Xriba technology powers many of the features and functions surrounding the financial actions around the TokenCheck Foundation. As more users utilize the Xriba Protocol and software from the TokenCheck Foundation, more income in the form of XRA will come to Xriba.

## **6.6 Business Plan.**

Xriba is not a traditional startup. Xriba is a project based on an established business with an eight-figure turnover. Also, Xriba can count on partnership with Soluzione Tasse, one of the top 5 Italian accountancy firms. Furthermore, Gianluca Massini Rosati, CEO of Xriba, has 150,000 business entrepreneur followers on his Facebook page "Escapologia Fiscale".

These entrepreneurs are business owners and in are need of a bookkeeping platform to record their books. Mastrobook and XribaPay will help them save over 70% of their accounting time and costs compared to traditional software. Mastrobook is already in use today. Therefore, the project is set to start with thousands of potential clients and substantial growth capacity.

Below is the projected client base and sales targets expected to be reached in the first four years:



Year	Mastro/Cryptobook Clients	XribaPay Clients
2018	5,956	2,977
2019	26,572	42,824
2020	51,949	210,476
2021	86,473	626,109

Based on this user forecast, we can assume that the platform will generate the following projected revenue in the next four years:

	2018	2019	2020	2021
Revenue				
Mastro/ Cryptobook Platform	\$1,768,932	\$7,892,002	\$15,428,900	\$25,682,553
Xriba Platform	\$219,750	\$5,011,175	\$37,963,407	\$119,562,616
Transparency Foundation Auditings	\$200,000	\$1,000,000	\$2,000,000	\$3,000,000
<b>Total Revenue</b>	<b>\$2,188,682</b>	<b>\$13,903,177</b>	<b>\$55,392,308</b>	<b>\$148,245,170</b>



# 7. Technical Details.

## 7.1 Why Blockchain.

Traditionally a business would employ a bookkeeping company to keep track of expenses, balance books, and generate quarterly statements. For an interested investor or individual to perform due diligence on a company beyond the quarterly statement, the individual or investor would need to query the bookkeeping company directly. Once they contact the bookkeeping company, they are met with various gatekeepers and privacy concerns that they must overcome if they wish to view the company's expenditures. Ultimately, they would also require the company's blessing to view an itemized transaction record of company expenses. This architecture is not transparent and requires the individual to rely on the trust of the bookkeeping company's quarterly statements to verify the company's financial standing.

In the B2B sector, if Company A wanted to examine Company B, Company A must contact Company B's bookkeeping services; once Company A receives Company B's blessing to allow them to view the financial records, Company A is presented with the task of analyzing and evaluating Company B's expenditures which may be in an entirely different format to their own. Company A is also forced to rely on the accuracy and trustworthiness of Company B's bookkeepers.

This process is centralized and changes from Company to Company. There is no uniformity or consistency to how companies save and store their expenditures; it varies between bookkeeping services. With the



development of blockchain technology, it's time that the accounting world takes advantage of decentralized ledger technology.

Blockchain technology enables companies to securely store and track business expenses on a decentralized ledger that is accessible and auditable by all parties. By utilizing the Xriba protocol, any company or individual across the world can query any company's finances and explore various expenses, revenue and more, in a uniform and trustworthy fashion.

Bookkeeping companies can build applications on top of the Xriba protocol and contribute to the growing number of companies aggregated expenses and financial standings on the blockchain. No longer will company records be stored among various databases fragmented from company to company.

Xriba's protocol prevents numbers from being 'smudged' or altered in quarterly statements and enables companies/individuals to efficiently query a company's financial standing without relying on the trust or cooperation of a third-party bookkeeping company.

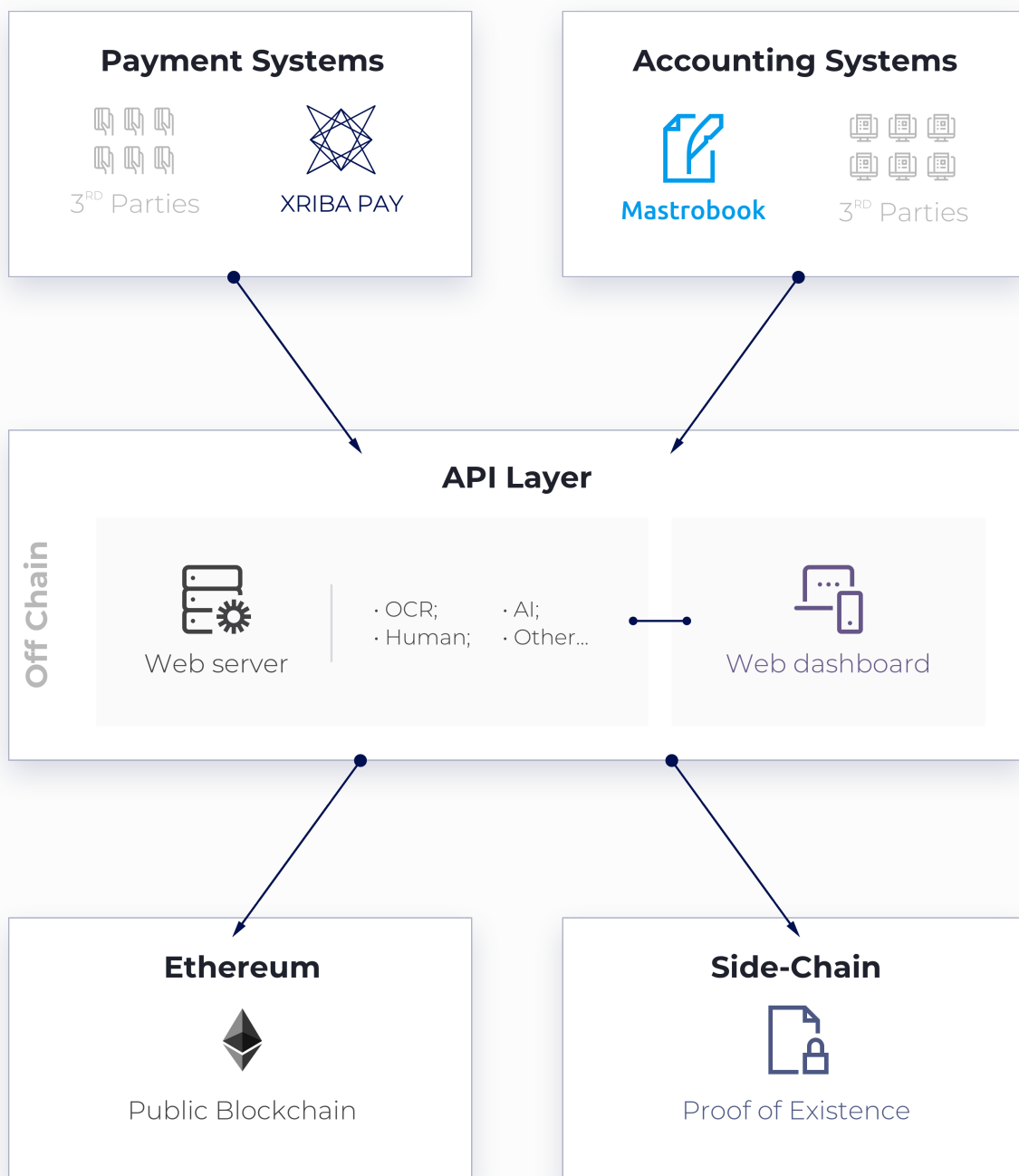
## **7.2 Why Xriba is using the Ethereum Blockchain.**

All the blockchains present unique perks and pitfalls. Xriba selected the Ethereum blockchain for several reasons:

- Strong developer and user community, Ethereum is not likely to disappear overnight and has one of the largest developer communities which increases development time and proficiency;
- Detailed smart contracts that are highly developed and flexible compared to other blockchain solutions;



- Scalability (Ethereum will implement sharding and layer-2 scaling that will enhance the Ethereum blockchains scalability processes);
- Mature ecosystem. Another viable solution would have been the Bitcoin blockchain utilizing RSK Smart Contracts. However, Ethereum has been around since 2016 and is more mature which equates to fewer bugs and hiccups along the way.



## 7.3 Xriba interactions with the Blockchain.

Xriba has created an efficient architecture for handling financial transactions and storing them on the blockchain. Xriba utilizes Proof of Existence to store financial records and information on the blockchain without bloating the blockchain or using unnecessary storage space. Xriba has built an API that allows companies, developers, and users to interact with the Xriba protocol. The API uses a stringent JSON object structure which ensures uniformity across companies financial records.

For a transaction to be recorded on the Xriba protocol, the transaction must ping one of Xriba's API endpoints containing:

- Document type;
- Name of expense;
- Amount of expense;
- Name of incoming payment;
- Amount of incoming payment;
- Payee;
- Payer;
- Document in byte format;
- Payment due date.

From here the API passes the document and metadata to Xriba's AI and OCR technology. The AI technology extracts the relevant data from the financial document in byte format, and this information is saved onto the Xriba database. Xriba's API then uses Proof-of-Existence, to convert this financial record into a hash format. The Xriba API then logs this hashed transaction record onto the Ethereum blockchain. By using Proof-of-Existence this ensures that the data cannot be modified without a mismatch in the Proof-of-Existence hash. If a violation occurs in the Proof-



of-Existence hash, then it is immediately known that the data has been tampered with.

By utilizing Proof-of-Existence in conjunction with blockchain technology, it is impossible to tamper with financial data once it has been submitted to the Xriba Protocol. When data needs to be read from the Xriba platform, this process simply happens in reverse. A GET request would hit one of Xriba's API endpoints requesting a particular transaction that corresponds to an Ethereum transaction ID. The Xriba protocol then retrieves those documents, hashes the document using Proof-of-Existence and compares the newly hashed document to the saved hash in the Ethereum transaction ID to ensure the data is accurate and has not been tampered with. Then after verification is complete, the metadata and document associated with the transaction are returned to the user.



# 8. Roadmap

## **April 2018**

- Mastrobook is an opening chart for the early adaptors. Just 1,000 licenses on sale;

## **June 2018:**

- Mastrobook opening chart available to all;

## **Q3 2018:**

- XRA listing on exchanges;

## **Q4 2018**

- Business eWallet first release;
- Xriba protocol to record bookkeeping in the blockchain;
- FCA authorization in the UK to provide e-payment and be the custodian;
- TokenCheck Foundation marketing;
- Mastrobook v2;

## **Q1 2019**

- Xriba e-payment mobile app;
- Xriba debit cards with direct reconciliation to bookkeeping platform;
- Xriba integration with other bookkeeping software;
- Xriba auditing for ICOs;
- Mastrobook v3;
- Xriba partnership with other bookkeeping platforms to provide his protocol;

## **Q2 2019**

- Xriba cryptocurrency exchange authorization;

## **Q4 2019**

- Xriba full banking license;





## ***Xriba Protocol***

### **May 2018:**

- Defining universal standard protocol;

### **December 2018:**

- Xriba Protocol dashboard and API documentation;

### **Q1 2019:**

- 3rd parties software integration;

## ***TokenCheck Foundation***

### **Q3 2018:**

- Foundation incorporation;

### **Q4 2018**

- TokenCheck Foundation affiliation;
- TokenCheck admin dashboard;

### **Q1 2019**

- Xriba Crypyobook dashboard for ICOs;
- Xriba auditing for ICOs;



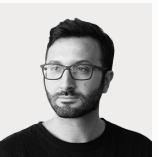
# 9. Team

**To be successful, a Company needs not only technical expertise, but marketing, financial and leadership skills to make the difference when competing with banks, big firms, and large enterprises. Xriba has a top-end team with both technical and entrepreneurial skills:**



## **Gianluca Massini Rosati - Founder and CEO**

Serial Entrepreneur, bestselling author, and business angel specialized in taxes, data entry and company accounts. He has more than 20 companies in 5 countries, employing over 150 staff. He founded one of the top five accountancy firms in Italy and counting more than 10,000 active clients in the last two years.



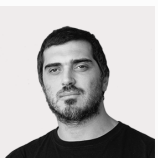
## **Federico Pacilli - Founder and CXO**

Co-founder and CEO of Baasbox, a lecturer at the LUISS Guido Carli University teaching User Experience Design and Product Design in the pre-acceleration 'Lean Start-up' program. Cryptocurrency and ICO expert.



## **Claudio Tesoriero - Head of Dev**

Co-founder and CTO of Baasbox. Specialised in software analysis, mentor at the Google Launchpad Week and speaker at Droidcoin as well as at the Universities of Tor Vergata and Camerino. Author of 'Getting Started with OrientDB.'.



## **Andrea Tortorella - Senior Dev**

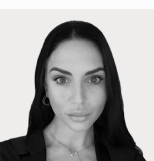
Lead Developer at Baasbox, lecturing at various advanced mobile programming courses. Skillset spans a variety of sectors within software engineering; he conducts continuous research into innovative solutions.





### **Andrea Agnoli - CTO**

Co-Founder and COO of Bookkeeping Italia. Graduated in Economics and Business Management worked on BPO (Business Process Outsourcing), Integrated Administrative Services and Digital Highly-Automated Streams since 2012. Project Manager for more than 1,000 companies' accounting services, directing many teams in R&D and data processing, working together with the most important players of digital innovation worldwide.



### **Clarissa Saccenti - COO**

Masters in Law from the University of Florence. Driven, goal focussed and blockchain expert, she does not take "no" for an answer. A strategist who works best under the gun, she has a keen eye on the big picture and an unflappable quality that guarantees success.



### **Antonio Di Casoli - CIO**

Professional trader specialized in Interest Rate Derivatives with tens of millions of profits made in over four years of banking experience. Expert in Financial Economics, machine learning and AI with an MSc from London School of Economics.



### **Federico Viganò - CMO**

Experienced Marketing Manager and public speaker with deep knowledge of digital marketing strategies. He has successfully created more than 100 marketing plans for companies between Switzerland, Italy and UK. In the last two years his primary focus has been setting up and developing two blockchain technology-based companies. He has also advised and consulted some successful ICOs and he currently leads / heads up the Xriba Marketing team.





### **Jackie Liew - IR**

In the financial sector for more than 12 years, Jackie started his career in Singapore with Standard Chartered and was closely involved in private residential and SME mortgage banking. In 2011, he joined Sing Investments & Finance Ltd, a boutique finance house in a department that handles high-net-worth, SMEs, and corporate clients.

## **Xriba can also count on the expertise of senior advisors:**



### **Fabio Cannavale**

Billionaire. Digital Entrepreneur. One of the most significant Venture Capitalists in Italy. Founder of eDreams.com and Volagratis.it. Founder and currently CEO of lastminute.com, his group comprises more than 1,200 employees and supplies services to over 10 million travelers each year.



### **Stefano Tresca**

Fintech and digital transformation expert. A serial entrepreneur, bestselling author, and tech investor. Founding member of Level39, the largest tech accelerator in Europe for Fintech and future cities. Founder of StartupHome, a co-living community for entrepreneurs.



### **Ian Morley**

Successful Business Angel and entrepreneur. President of Wentworth Hall Consultancy and Senior Advisor at AllenbridgeEpic Investment Advisers. One of the key global players and a pioneer in the development of the hedge fund industry. Managed one of the first and oldest European funds. Has worked as an advisor for central banks, international regulators, and other international organizations.



# 10. ICO

## 10.1 Token Utility

XRA tokens power the usage of the Xriba Protocol and services. Many of the Xriba services are unlocked by holding XRA tokens. The greater the usage and popularity of the Xriba Protocol and Xriba transparency services, the lower the circulating supply of XRA will become:

- Xriba tokens are the payment method for services offered on the Xriba protocol;
- When XRA are spent for services on the Xriba protocol, spent XRA tokens are locked up for 6 months, after which the XRA tokens are used for company expenditures.

Xriba is a founding member of the TokenCheck Foundation. Holding TokenCheck Foundation member tokens, such as XRA, is equivalent to a membership card:

- **For companies to become members of the Foundation** and to offer transparency services, they must hold TokenCheck Foundation tokens, such as XRA;
- **For companies to receive transparency services** and potentially a transparency stamp, they must hold TokenCheck Foundation tokens, such as XRA;
- **For individuals** to access transparency products and services features offered by the TokenCheck Foundation, such as viewing a companies' finances or detailed audit reports, the individual must hold TokenCheck Foundation tokens such as XRA.



To finance the launch phase, the project holding company Xribum Ltd, via ICO, will offer the opportunity to purchase 131,750,000 of 300,000,000 (three hundred and first million) Master Xriba tokens (XRA) released by smart contract. Via Master Xriba (XRA) tokens you will be able to access the platform and utilize the various services that Xriba offers.

## 10.2 Token Details

TOKEN NAME	Xriba
TOKEN SYMBOL	XRA
TOKEN PRICE	0,30 US\$
CIRCULATING SUPPLY AT LAUNCH	109,500,000
SOFT CAP	US \$10,000,000
HARD CAP	US \$19,465,500
TOTAL SUPPLY	275,500,000

## 10.3 Token Distribution

Allocation	% of total tokens
Founder Investment	3,00%
Private Sale	22,00%
Strategic Investor	5,00%
Presale	18,00%
Public Token Sale	4,00%
Airdrop	7,00%



Allocation	% of total tokens
Company Reserve	14,00%
Marketing	11,00%
Advisors	11,00%
Team	5,00%
<b>SUM</b>	<b>100,00%</b>

- Founder Investment tokens are locked up for 24 months.
- Private Sale tokens are locked up for six months. After six months 30% are released and 10% monthly.
- The Company Reserve is locked up for 36 months.
- Advisor tokens are locked up for six months.
- Team tokens are locked up for 12 months. After 12 months 10% is released every month.

## 10.4 Tiers, bonuses and lockups

Tier	% of Total Tokens	Price	Bonus	Minimum Investment	Tokens (incl. Bonus)	USD equivalent	Lock up	Release Schedule
Founder Investment	3,64%	\$0.0600	400,0%	-	10,000,000	\$600,000	2 y	Immediate
Private sale	6,55%	\$0.200	50,0%	-	18,000,000	\$3,600,000	6 m	30% + 10% per month
Strategic Investors	4,73%	\$0.106	183,0%	-	13,000,000	\$1,378,000	-	-



Tier	% of Total Tokens	Price	Bonus	Minimum Investment	Tokens (incl. Bonus)	USD equivalent	Lock up	Release Schedule
Presale Tier 1	6,91%	\$0.200	50,0%	\$1,000,000	19,000,000	\$3,800,000	-	-
Presale Tier 2	5,45%	\$0.2225	34,8%	\$500,000	15,000,000	\$3,337,500	-	-
Presale Tier 3	5,45%	\$0.250	20,0%	\$25,000	15,000,000	\$3,750,000	-	-
Public Token Sale	3,64%	\$0.3000	0,0%	-	10,000,000	\$3,000,000	-	-
Airdrop	15,27%	-	0,0%	-	42,000,000	\$0.0	-	-
<b>SUM Sold</b>	<b>51,64%</b>	-	<b>118,9%</b>	-	<b>162,000,000</b>	<b>\$ 19,465,500</b>	-	-

\* Presale Tier 1 has a minimum investment of 1.000.000 USD. Presale Tier 2 has a minimum investment of 500.000 USD. Presale Tier 3 has a minimum investment of 25.000 USD.

Xriba is a strategic partner of Eidoo, a Swiss exchange listed on Bitfinex. Xriba will perform an airdrop to Eidoo wallet users after the token sale. The purpose of the airdrop to Eidoo wallet users is to give Eidoo wallet users bonus tokens to promote the usage of the Xriba Protocol and services as well as the TokenCheck Foundation products for Transparency and Accountability.

## 10.5 Use of Proceeds





Xriba aims to bring transparency to the very core of ICO, and due to its protocol, it will be the first ICO that registers accounts in the blockchain, which is therefore completely transparent and accessible to everyone, including all payments and transactions paid with the funds accumulated during the ICO.

During the first year the categories of expenditure in the blockchain will be:

Description	Budget \$
Sales & Marketing	\$2.328.525,00
Bookkeepers & OCR	\$763.821,5
Countries Development	\$200.000,00
R&D	\$1.300.000,00
Legal & Compliance	\$1.000.000,00
Human Resources	\$2.360.000,00
Offices	\$141.000,00
Hw Management + Sw Licensing	\$595.000,00



# 11. Disclaimer

This document was drafted by Xribum Ltd to represent its project to potential buyers of its services. Xribum Ltd has undertaken its own analysis based on information available to the management and partners at the time of writing and assumes no responsibility regarding aspects of eventual profitability and evaluation that ensues, nor for any consequences that may result from the unavailability or inaccurate communication of data and facts pertaining to the formulation of the evaluations expressed within this document.

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