Ittrium

WHITEPAPER

v1.3

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1. Introduction

The Ittrium team has utilized open source technologies developed by Bitcoin (BTC), DASH and PIVX to create a decentralized digital cryptocurrency that allows for near instantaneous private transactions with minimal fees. We have a novel strategy we believe will improve liquidity, which in turn will minimise exposure and reduce investor risk. Our goal is to develop a market leading cryptocurrency that is price stable (in terms of BTC value) and offers reasonable returns via Proof of Stake (PoS) and Masternode (MN) rewards.

The vast majority of new crypto projects over-promise and simply underdeliver. Ittrium isn't a "get rich quick" crypto. If that's your sole goal when trading/investing in new crypto projects, we recommend you invest elsewhere. Creating a successful cryptocurrency is a difficult task to achieve. It requires many of the same qualities successful businesses exhibit; great leadership, communication, transparency, marketing and most importantly in the crypto ecosystems, community engagement and support; all of which the Ittrium team aim to provide/nurture.

1.1. Why Ittrium

Bitcoin is commonly referred to as digital gold. In a similar way, we consider Ittrium to be the digital equivalent to the rare-earth metal Yttrium. Yttrium is synonymous with modern technology; it's used in the production of electrodes, fuel cells, computers, smart phones, "lasers" and superconductors due to its unique ability to conduct electricity without any loss of energy. The demand and use of Yttrium has increased significantly in recent years and its relevance and value will continue to increase in the future. In many ways, Yttrium is the perfect metaphor for the Ittrium Cryptocurrency.

2. Coin Specifications and Parameters

2.1. Specification Summary

Maximum Supply:	33,000,000 XIT
Pre-mine:	495,000 XIT (1.5%)
Block Time:	60 seconds
Block Size:	2Mb
Maturity:	60 Blocks
Confirmations:	6 Blocks
Port:	39993
RPC Port:	50369
Masternode:	73% of block rewards
Proof of Stake:	27% of block rewards
Internet Protocol:	IP4, IP6 and TOR

2.2. Block Reward

Block rewards have been divided into twelve phases including pre-mine (Table 1 and Figure 1). Phase 1 or the pre-mine phase has been limited to 495,000 XIT (1.5%). The pre-mined XIT coins will be used for project development, exchange listings, advertising, marketing and most importantly, to improve Ittrium liquidity (see below for more information). Block rewards progressively increase (ramp up) from phase 2, through to phase 7, after which rewards progressively decrease (ramp down) until phase 12 is reached

and block rewards remain at 3 XIT until maximum supply is reached. The relatively quick ramp up of block rewards followed by a longer slower ramp down has been designed to incentivise early adopters whilst ensuring coins remain relatively scarce, thereby being more likely to increase in value.

Table 1 – Block Reward Summary.

Phase No.	Block From	Block To	Block Reward (XIT)	Supply per Phase (XIT)	Total Supply (XIT)	MN Reward (XIT)	PoS Reward (XIT)	Est. No. of Days
Phase 1*	1	300	1650	495,000	495,000	n/a	n/a	0
Phase 2	301	30,000	3	89,100	584,100	2.19	0.81	21
Phase 3	30,001	60,000	6	180,000	764,100	4.38	1.62	43
Phase 4	60,001	90,000	9	270,000	1,034,100	6.57	2.43	64
Phase 5	90,001	120,000	11	330,000	1,364,100	8.03	2.97	86
Phase 6	120,001	150,000	22	660,000	2,024,100	16.06	5.94	107
Phase 7	150,001	180,000	33	990,000	3,014,100	24.09	8.91	129
Phase 8	180,001	210,000	22	660,000	3,674,100	16.06	5.94	150
Phase 9	210,001	340,000	11	1,430,000	5,104,100	8.03	2.97	243
Phase 10	340,001	650,000	9	2,790,000	7,894,100	6.57	2.43	464
Phase 11	650,001	1,800,000	6	6,900,000	14,794,100	4.38	1.62	1286
Phase 12	1,800,001	7,868,633	3	18,205,900	33,000,000	2.19	0.81	5634

*Pre-mine

Figure 1 – Ittrium (XIT) coin supply.
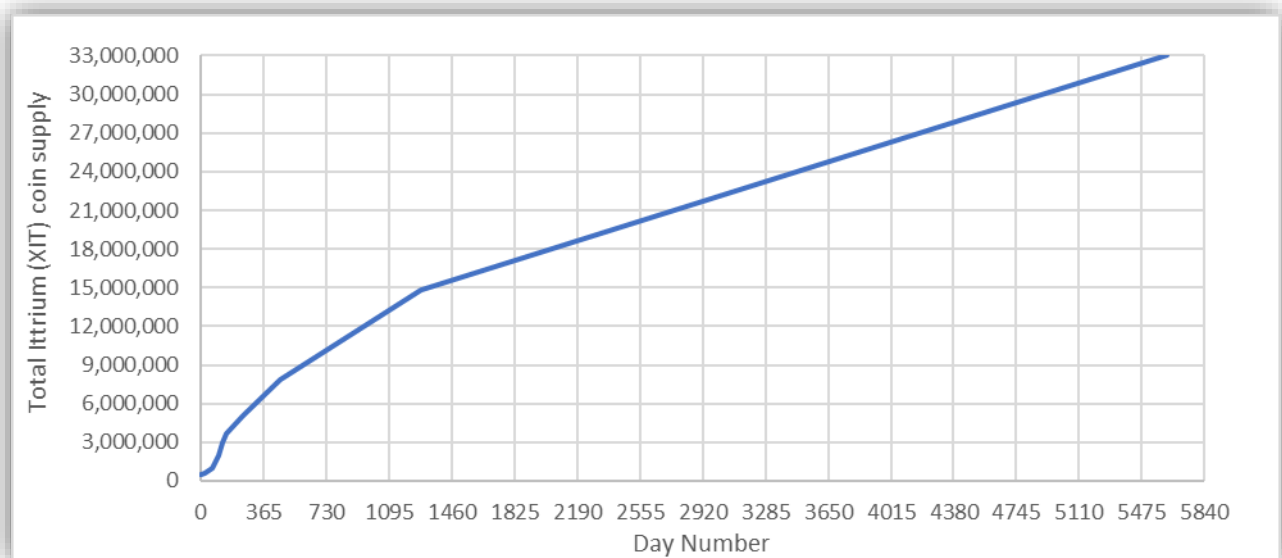
2.3. Pre-mine Coin Distribution

The 495,000 pre-mined XIT will be used/distributed as per the following process. As there is no PoW phase (other than the pre-mine phase) new investors are required to purchase XIT coins from either the pre-exchange masternode sale or via an exchange (Table 2). The pre-exchange masternode sale will offer 20 masternodes (totalling 100,000 XIT) for purchase on a first come, first serve basis. The 'seed capital' generated from this sale will be used for advertising and exchange listings (see Section 2.3.1).

2.3.1. Capital Requirements

The Ittrium project aims to be a leading masternode cryptocurrency, to achieve this the project requires sufficient 'seed capital' to ensure we can achieve the goals outlined in this whitepaper. There is a fine line between too much and too little seed capital, too little and the project fails to get off the ground, too much and you simply scare investors away. The question is, what is the correct amount? The Ittrium team believes the minimum amount of seed capital required is 3 BTC, and anything above 9 BTC is simply unjustifiable.

To ensure transparency and Ittrium's success, we are aiming for 6.25 BTC of seed capital from the pre-exchange sale (0.300 BTC per MN for phase 1 and 0.325 BTC for phase 2), of which, 5.6 BTC is proposed to be spent on advertising and exchange listings detailed below, reserving 0.4 BTC for future advertising.

i.   2.0 BTC - https://crypto-bridge.org/ exchange listing
ii.   0.3 BTC - https://masternodes.online/ coin listing
iii.   1.3 BTC - https://masternodes.online/ advertising
iv.   1.0 BTC - https://www.stocks.exchange/ listing
v.   1.0 BTC - https://coinmarketcap.com/ advertising
vi.   0.65 BTC - Future advertising

2.3.2. Capital Requirements

After the pre-exchange masternode sale and once Ittrium has been listed on an exchange, an additional 350,000 XIT coins will be listed for new investors to purchase, the capital raised will be used to create a 'stepped defensive buy wall' to improve liquidity and protect against negative price volatility (see Table 2 and Section 4.3). The remaining 45,000 XIT (0.13% of total supply) will be reserved for bounties and distributed amongst the Ittrium team.

Table 2 – Pre-mine Coin Distribution.

Sale/Allocation Reference	No. XIT available per allocation	Total XIT in circulation	XIT Price (BTC/XIT)	MN Cost (BTC)	Discount (%)
Phase 1 - MN Pre-Sale*	50,000	50,000	0.000060	0.300	67%
Phase 2 – MN Pre-Sale*	50,000	100,000	0.000065	0.325	54%
Phase 3 – Exchange Allocation	50,000	150,000	0.000070	0.350	43%
Phase 4 – Exchange Allocation	50,000	200,000	0.000075	0.375	33%
Phase 5 - Exchange Allocation	50,000	250,000	0.000080	0.400	25%
Phase 6 - Exchange Allocation	50,000	300,000	0.000085	0.425	18%
Phase 7 - Exchange Allocation	50,000	350,000	0.000090	0.450	11%
Phase 8 - Exchange Allocation	50,000	400,000	0.000095	0.475	5%
Phase 9 - Exchange Allocation	50,000	450,000	0.000100	0.500	0%

* capital reserved for advertising and exchange listings

2.4. Masternode

A Masternode is essentially a decentralized node that is constantly connected to the Ittrium network. Masternodes improve network stability and are tasked with important network duties allowing for near instant and private send functionality, called SwiftTX and Obfuscation, respectively. In return

masternodes receive a greater percentage of block rewards (i.e. 73%) to incentivise masternode uptake. A wallet with 5,000 XIT collateral is required to host a masternode. The 5,000 XIT coins never leave your wallet, instead they become temporally 'unspendable'. At any point the masternode can be disbanded after which the collateral becomes 'spendable'.

2.4.1. Private Transactions

A coin mixing feature known as Obfuscation provides a high-level of anonymity, allowing Ittrium users to make private transactions. Obfuscation is a decentralized process which is facilitated by multiple randomly selected masternodes. Some argue that Obfuscation is only semi-anonymous, which is technically true compared to Monero which is 100% untraceable.

Obfuscation becomes less secure when/if one party controls more than 50% of masternodes on the network. Whilst we acknowledge it is possible for someone to control more than half of all masternodes, the probability of this occurring is very low. Furthermore, assuming one person managed to control 50% of all masternodes, a transaction that was mixed with 8 rounds of Obfuscation would have a 0.5% chance of being traced. In reality, the probability of successfully tracing an Obfuscation transaction is miniscule.

2.4.2. Instant Transactions

SwiftTX is another feature facilitated by masternodes that allows a transaction to be processed prior to the next block allowing for near-instant transactions, which significantly increases transaction speed compared to conventional systems such as Bitcoin. When a SwiftTX is submitted to the network, a group of randomly selected masternodes will attempt to reach consensus and validate the transaction. Validation typically takes less than a few seconds (depending on network speed), after which, the transaction is processed (i.e. send and received to the various wallets).

3. Usecase

Ittrium goal is simple; to create a near instantaneous, anonymous, digital currency which is price-stable in terms of BTC value, whilst being fast and convenient for people to use for everyday purchases.

One of the biggest criticisms of cryptocurrencies is their difficulty to convert into fiat currency (and vice versa) and their inability to be used for everyday purchases. The Ittrium team envision the ability to quickly and conveniently convert Ittrium into any fiat currency via a worldwide network of cryptocurrency Automatic Teller Machines (ATMs). To achieve this, our main focus will be getting Ittrium supported by several major Cryptocurrency ATM manufacturers, such as bitcoinatm.com, generalbytes.com, lamassu.is, and bitaccess.co to name a few.

3.1. Cryptocurrency ATMs

Cryptocurrency ATMs make it much, much easier for people to convert crypto into cash and vice versa. People can simply walk up to the crypto ATM and scan a QR code of their wallet address to make a withdrawal in the local fiat currency within a matter of seconds. It is extremely simple, fast and convenient. Alternatively, people can also purchase Ittrium by inserting their local fiat currency into the crypto ATM.

Crypto ATMs are relatively new, first appearing in 2014 and as of Sept-18 there were 3,700 in over 60 nations worldwide. According to the world bank, in 2016 there were approximately 3.5 million traditional ATMs worldwide, so in comparison, Crypto ATMs are still relatively sparse. That said however, if you live

in a city with a population of over 1 million people, there is likely a to be crypto ATM within several kilometres (https://coinatmradar.com/). Furthermore, if historical growth in crypto ATMs continues, within 10 years there could be as many crypto ATMs as traditional ATMs. In other words, there will be one just around the corner (Figure 2).

Figure 2 – Worldwide growth in crypto versus traditional ATMs.
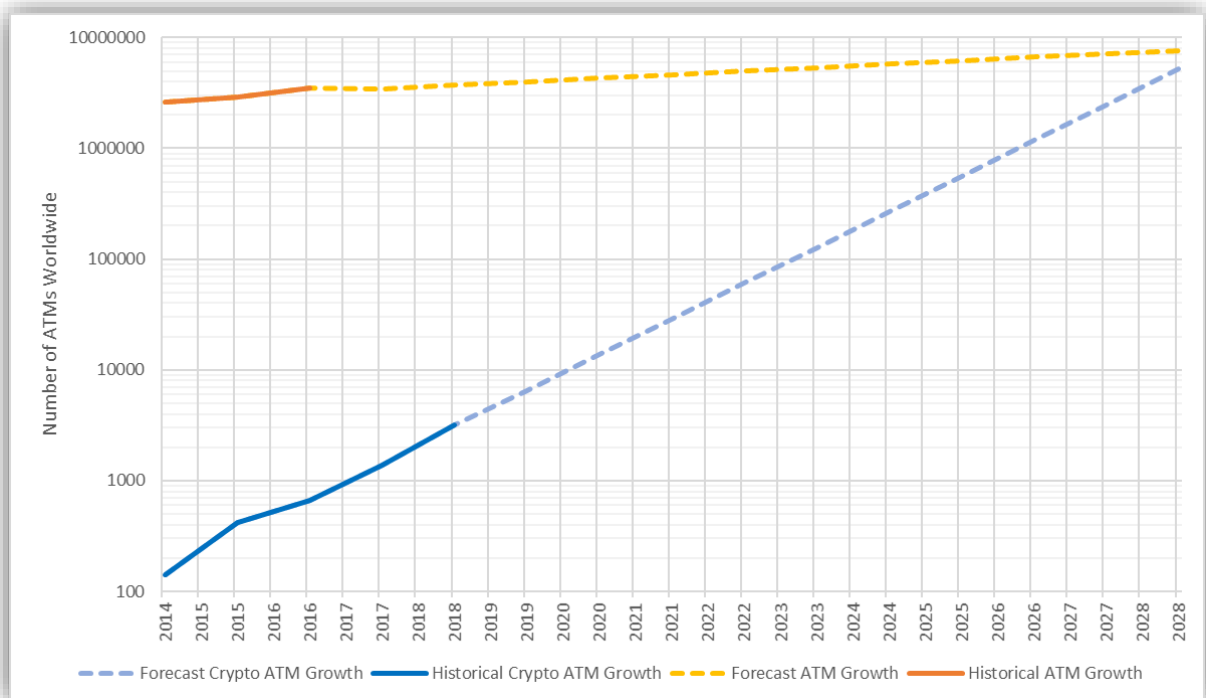
3.2. ATM-nodes

To incentivise manufactures to support Ittrium on their ATM platforms, we plan on developing a second tier masternode called an ATM-node. The ATM-node will perform the same tasks and network duties as a masternode, however receive increased block rewards for the valuable service they provide.

3.3. Beneficial for mainstream adoption

People are accustomed to using traditional ATMs, so in theory, transitioning to a crypto ATM should be relatively easy. As crypto ATMs increase in number and become more accessible, more people will start to use them. The more people using them, the greater the attention and trust given to a project and consequently a greater probability of achieving mainstream adoption. Getting Ittrium supported by major crypto ATM manufacturers, will enhance brand awareness and ultimately mainstream adoption.

4. Improving Price Stability

A price stable crypto. Is there really such a thing? The Ittrium team believes it is possible to minimise price volatility by reducing Fear of Missing Out (FOMO); Fear, Uncertainty and Doubt (FUD) and by increasing liquidity. The Ittrium team believes the strategies outlined below diminishes the effects of

FOMO, FUD and low liquidity and reduces investor exposure and risk.   Firstly however, let's review the typical price action/cycle that occurs when a new crypto is released.

4.1. Reducing FOMO and FUD

When a new crypto is released, a proportion of pre-mine coins are typically sold/auctioned to pay for development (i.e. exchange listings, advertising, marketing etc). Whilst we believe this is a reasonable way to raise capital, in many cases it has negative consequences.

Early coin scarcity increases competition amongst investors, resulting in FOMO. FOMO in conjunction with scarcity and low liquidity, causes significant positive price instability.   This issue is typically exacerbated if coins are auctioned.   Auctions push a number of our psychological buttons, as your adrenaline pumps, your heart beats faster, your reactions quicken and before you know it, you've paid too much.   One estimate states that about half of eBay auctions result in higher sale prices than the "buy it now" price. Long story short, we believe auctions are counterproductive as they fuel FOMO. As scarcity decreases (i.e. as more coins are mined/minted) coupled with a decrease in investor demand, there tends to be a price correction. At this point, FUD coupled with low liquidity, causes the value to crash, burning investors. It's a fear-driven downward spiral.

So why does the Ittrium team care if a few early investors get burnt, particularly if it's the result of their own greed? The answer is twofold, firstly, we want to develop a community where everyone is 100% committed to the project. Burnt investors aren't likely to be committed and are less likely to continue investing in the future, "Once bitten twice shy", as the saying goes. The second reason is because negative price volatility fuels investor FUD. Who'd want to invest in a new coin that is down 30-50%, or worse, down 90% within a few months of listing? We'd argue very few. When this occurs, it's often the "nail in the coffin" and the crypto dies a slow and painful death, burning more investors as it goes.

Similar to an ICO, we believe offering coins at a reasonable price to all investors upon release, is the best strategy. Not only is this a much fairer approach, as all early investors pay the same amount per coin, in theory it should also reduce FOMO and thus prevent or minimise upward price volatility. This approach also reduces investor exposure and risks, which in theory, should also reduce FUD. However, similar to many ICO's, this strategy does not protect investors from future FOMO/FUD induced price volatility caused by low liquidity.

4.2. The Effect of Low Liquidity

To protect investors from future FOMO/FUD induced price volatility, the Ittrium team has a second strategy to increase liquidity. However, we'll firstly explain the effect of low liquidity. Liquidity is the term used to describe the degree to which an asset or cryptocurrency can be quickly bought or sold in the market without affecting the asset's price. Low liquidity is often the cause of both positive and negative price volatility.

Figure 3A and

Figure 3B illustrate the effects of low and high liquidity, respectively. With the exception of having a higher number of buy orders, all other parameters remain identical. The low liquidity example (

Figure 3A) show only 10,000 XIT worth of buy orders, whereas in the high liquidity example (

Figure 3B), there are 40,000 XIT worth of buy orders.

If someone was to sell 8,000 XIT at market value, in the low liquidity example (

Figure 3A) the price would decline 16.6% (i.e. from 0.00018 to 0.00015 BTC per XIT) and the seller would only receive 1.35 BTC. This would more than likely spread significant FUD, and in the process causing further declines in value (i.e. panic selling). Conversely, in the high liquidity example (

Figure 3B) selling 8,000 XIT at market price would acquire 1.45 BTC but in this case, the value of XIT would remain the same (i.e. 0.00018 BTC per XIT), thereby having little or no effect on investor sentiment. Sadly, very few new crypto projects understand the importance of improving liquidity. The first goal of any new crypto should be to overcome low liquidity before FUD overtakes the mindset of investors.

Figure 3 – The effect of low liquidity.
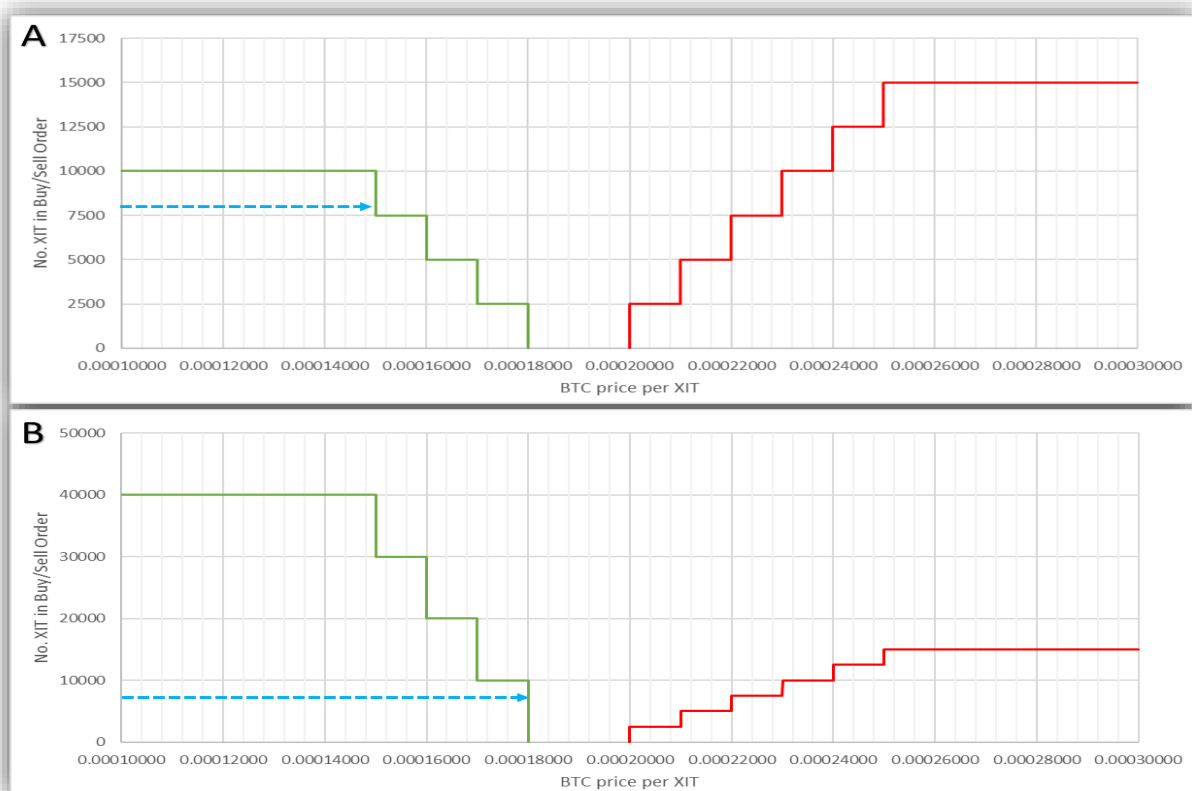
4.3. Increasing Liquidity

Similar to stock buyback schemes (e.g. in 2016 Walt Disney bought back 73.8 million shares valued at $7.5 USD billion), the Ittrium team proposes a similar buy back scheme. As far as the team can ascertain, our approach to improving liquidity is a novel strategy and the first in the crypto ecosystem. A total of 350,000 XIT of pre-mine coins will be listed on an exchange (or exchanges) for new investors to purchase, the profits of which will be re-invested to increase liquidity by creating a 'stepped defensive buy wall'. The Ittrium team believe this strategy will minimise negative price volatility, at least short term, and will continue adopting this strategy until liquidity develops naturally or until funds are exhausted.

4.3.1. Stepped Defensive Buy Wall

Figure 4 and Table 2 highlights the proposed strategy the Ittrium team plan to implement. As previously stated a total of 350,000 XIT will be listed in seven allocations of 50,000 XIT per allocation, starting at

0.00007 BTC/XIT and increasing 0.000005 BTC/XIT after each allocation has been sold. The profits from each allocation will be used to setup the stepped defensive buy wall.

For example, when the 50,000 XIT is purchased in Figure 4A at 0.00007 BTC/XIT will be used to create 53,846 XIT worth of buy orders at 0.000065 BTC/XIT, as seen in Figure 4B. Likewise the 50,000 XIT sold in Figure 4B at 0.000075 BTC/XIT will be used to create 53,571 XIT worth of buy orders at 0.00007 BTC/XIT as seen in Figure 4C. This process will continue until Figure 4H, where the initial 350,000 XIT has been purchased, replaced by 372,226 XIT worth of buy orders.

Obviously, this example is only theoretical as the total number of buy and sell orders will be influenced by investors and market conditions, however the principle remains. Any pre-mine XIT investors purchased will be used to improve liquidity, which will minimise negative price volatility.

1.1.1. Transparency

Any buy orders the Ittrium team places are genuine offers and will either be sold or remain indefinitely. To mitigate the risk of an exchange hack, a common occurrence in the crypto ecosystems, the decision might be made to only expose a proportion of funds (to be determined), at any given time. To maintain transparency and to reassure investors this isn't an elaborate spoofing ploy, all exchange orders will be announced and publicly available.

Figure 4 – Development of a Stepped Defensive Buy Wall.
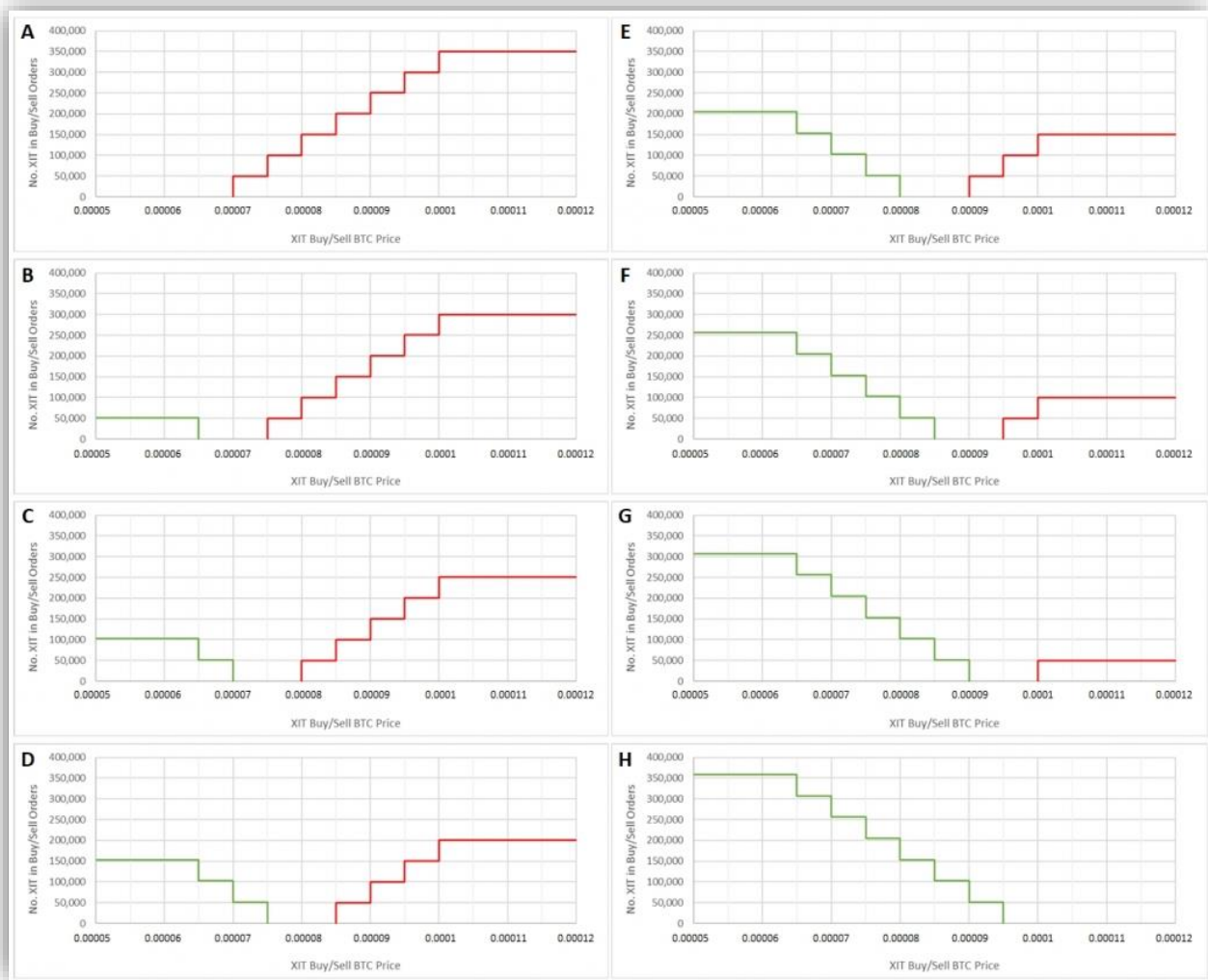
1.2. Community Support

1.2.1. HODL

The Ittrium team believes it can mitigate price volatility, at least initially, however to achieve this indefinitely would be very difficult without community support.   There are many factors that can influence price volatility. As stated previously, the mindset of investors is paramount. We therefore ask all investors to ignore both the FOMO and FUD influences and think almost symbiotically (i.e. to the mutual benefit of the community) and HODL. That's not a typo, HODL is a slang term and internet meme that is used in the Bitcoin community when referring to holding a cryptocurrency rather than selling it.

The spot price of any asset is controlled by two main factors; supply verses demand or 'willingness to sell' verses 'willingness to buy'. Given that Ittrium cannot be mined, only minted via PoS or MN, any XIT being sold is sourced from the community. Therefore, the Ittrium community are ultimately responsible for downward price volatility (i.e. the price they are willing to sell).   Upward price volatility is predominantly determined by new investors, however historical price action certainly has an influence.

Theoretically speaking, if all investors were not willing to sell for anything less than what they paid, then XIT's value would only increase. Obviously, this isn't realistically going to occur in the real world as investors have financial commitments and need to sell at times convenient to them. That said however,

the team urges the Ittrium community to 'HODL' or at least, minimise selling XIT below their purchase price, during periods of FUD.

Hold on a second, isn't that call price fixing? Perhaps, but countries often agree on an exchange rate that they will mutually support, either at a fixed rate or within a band. The reason for doing this is to minimize the uncertainties and costs for businesses or individuals trading among the countries. The euro, for example, was preceded by just such an agreement among the European countries, and the Chinese currency was formally pegged to the U.S. dollar from 1994 to 2005; even now, it appears to be managed closely by the Chinese government, much to the U.S. government's displeasure.

1.2.2. Help Protect Against Negative Price Volatility

The Ittrium team also requests that all investors play an active role in protecting their investment and help maintain price stability by committing 3% of their XIT portfolio value to increase liquidity. This can be done by creating a buy order a just below their original purchase price (typically 5-10%). For example, if an investor purchases 1 BTC worth of XIT at 0.0002 BTC each (i.e. 5,000 XIT), we would request that an additional 0.03 BTC be used to create a buy order to purchase an additional 150 XIT at 0.000018 BTC per XIT. Ideally this buy order would not be executed, but rather remain active to increase liquidity. If all investors made this commitment, liquidity would increase significantly and in theory minimise negative price volatility.

2. Concerns with Proof of Work

Deciding whether or not to have a PoW phase (other than the pre-mine) was a major consideration the team considered when developing Ittrium. Eventually, the team decided that PoS was more sustainable, fairer, less centralized, less prone to exploitation and would result in a healthier, stronger community in comparison to PoW.

2.1. PoW is Extremely Energy Intensive

It is estimated that the Bitcoin network consumes 37 Terrawatt hours (TWh) of electricity per annum. To put this into perspective, if Bitcoin was a country, it would rank 58th in terms of electricity consumption. In other words, it uses more electricity than the combined consumption of 77 countries, within which 250 million people reside.

The cost of electricity in China where the vast majority of mining farms are located is approximately $0.09 USD per kilowatt-hour, therefore Bitcoin consumes $3.3 billion USD per annum of electricity. Furthermore, additional costs in terms of global warming, environmental damage, depletion on non-renewable resources and increased energy costs for economically disadvantaged countries is immense.

We're not advocating for or against the science of global warming; that goes beyond our level of expertise, however given the associated risks to humanity, surely its common sense to reduce the worlds carbon footprint and utilize a sustainable option, should one be available. For this reason, the Ittrium team prefers PoS 'sustainability' over PoW.

2.2. ASIC's Contribute to Centralization.

One of Satoshi Nakamoto's underlying principles for Bitcoin was "one CPU, one vote," referring to decentralization and how anyone with a computer could join and secure the network. As a technology

that relies on decentralization in order to provide a level of anonymity, any trend towards centralization is viewed by the Ittrium team as being problematic.

Since the invention of Application Specific Integrated Circuits (ASICs) miners however, there has been a trend towards mining centralisation which we believe will only intensify in the future. Rather than "one CPU, one vote", as Nakamoto envisaged, instead a few ASIC manufacturers (i.e. Bitmain, Baikal, BitFury, etc.) now control the vast majority of computational power and reap the vast majority of block rewards.

Whilst there is currently (and most likely always will be), ASIC resistant algorithms, the Ittrium team believes it is just a matter of time before any algorithm is cracked. The recent cracking of Monero's cryptonight algorithm by Bitmain highlights this perfectly. The Monero developers recently hard forked on 6th April 2018 solely to prevent ASIC mining, however we suspect this is likely to be only a short-term fix before the new algorithm is cracked again. Rather than engaging in this 'technological arms race' of altering the algorithm every time it's cracked, a more effect approach would be to utilize PoS instead.
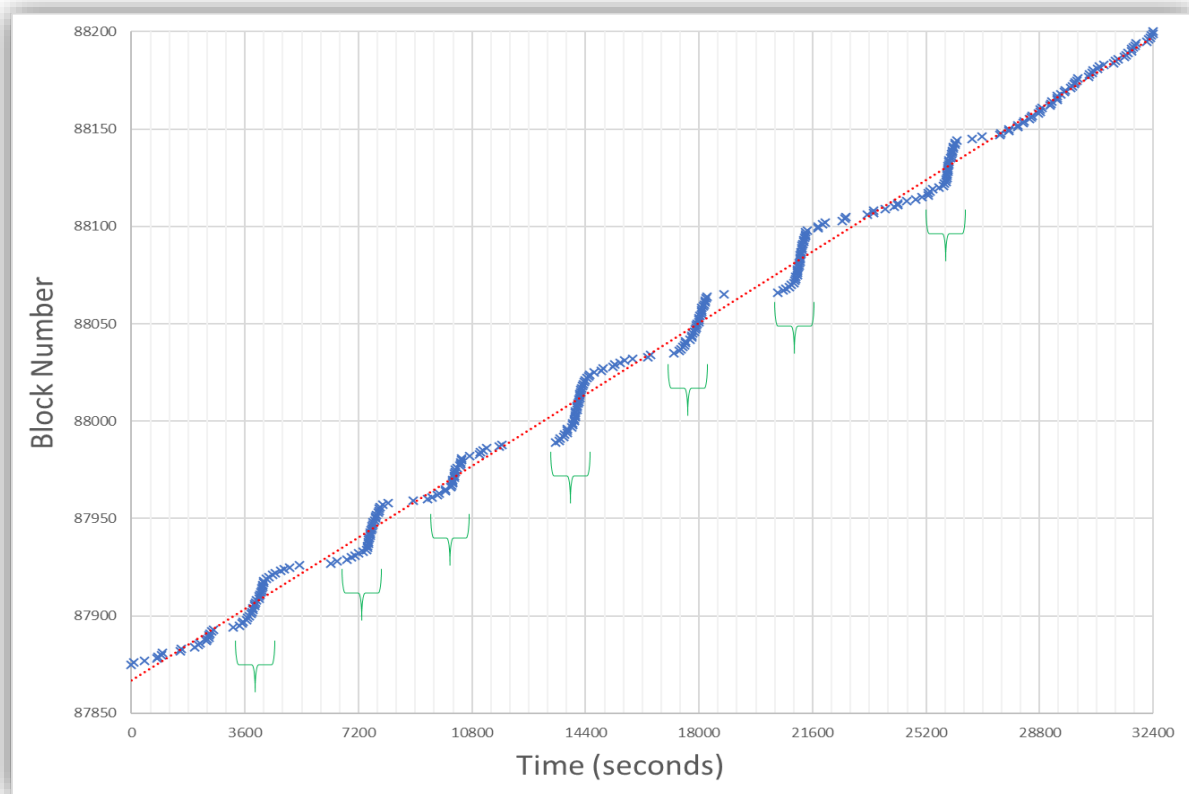
2.3. Blockchain Surfing

Mining is part luck (at least initially), and over time becomes a function of statistical probability. If a miner has 10% of the computational power of a network, on average they should receive 10% of all block rewards. That said, many miners will testify that they simply don't receive the block rewards anticipated/calculated. Most put this down to bad luck, inaccurate online profitability calculators or higher mine pool fees than advertised, however it is very clear to the Ittrium team, renting enormous computational power for short periods can favour the minority at the expense of the majority.

Having the ability to rent enormous computational power for short periods can play havoc with a mining difficulty, causing it to fluctuate wildly. This is particularly problematic for new cryptos with low(er) network hash rates. Mining difficulty is a design feature or variable to ensure blocks are solved in accordance with the crypto's block time specification, it essentially increases or decreases the computational power required to solve a block so that, on average blocks, are solved in accordance with the target block time.

In many coins this feature has been hijacked for nefarious purposes. Imagine CoinXYZ has a block time of 90 seconds and a relatively low hash rate (i.e. 300 Kh/s). If a person was to rent 600 Kh/s, the net hash rate has effectively increased 3-fold (i.e. 900 Kh/s). This causes block times to decrease significantly every 5 seconds, until the coins difficulty algorithm is able to react and increase difficulty, requiring more computational power to solve the next block. It is at this point where renting ceases, causing the net hash rate to decrease from 900Kh/s to 300Kh/s, but the network difficulty still remains high. This causes the next few blocks to take significantly longer than the target block time, up to 5-10 mins per block, until difficulty decreases in accordance with the lower network hash rate. Once this occurs, the aforementioned process is repeated, again and again.

This creates a wave pattern of long periods with relatively low rewards, followed by short periods with high block rewards, and that is why we've called this activity 'blockchain surfing'. Figure 5 below depicts block surfing in action, the red dotted line represents the intended target block time (i.e. 90 seconds). There are seven 'waves' indicated by the green brackets where 184 blocks are solved within 5830 seconds (an average block time of 32 seconds), followed by periods of low block rewards where 142 blocks are solved within 22,970 seconds (an average block time of 162 seconds). Note also that after the 7th wave blockchain surfing ceases and the block times return to normal.

Figure 5 – Blockchain Surfing.

Assuming a blockchain surfer only rents hashing power during the green bracket periods, they will receive significantly more CoinXYZ per unit of effort, compared with miners not surfing. For example, in the case outlined above, the surfer would acquire 38% of the profits, but only contribute 29% of the overall effort. Whereas, the majority would contribute 71% of the overall effort, but only receive 62% of block rewards. Essentially, blockchain surfers increase their profitability at the expense of others. Over time, this often causes miners to abandon mining CoinXYZ, concentrating profits to the blockchain surfers.

2.4. Miners have different Goals/Objectives

Having two groups of miners and investors with different goals/interests inevitably results in a fragmented community. This has been an ongoing issue for most PoW cryptos for several years, contributing to the Bitcoin Cash and Bitcoin Gold hard forks.

Suffice it to say, these differences are quite complex and vary depending on a number of factors; the age of the coin, network hash rate and total market capitalisation to name a few. In new and emerging crypto projects, so long as a coin is profitable to mine, it's value typically decreases.

Miners are focused on maximising short-term profits rather than the long-term interest of the crypto project succeeding. If a miner can make 5-15% profits from mining a coin, there is little incentive for them to hold/accumulate a crypto (particularly in a bear market). The smarter option is to mitigate potential losses by locking in profits immediately, which is exactly what most successful miners do. This inevitably causes prices to decline, reducing profitability. This continues until it's no longer profitable to mine, after which, they abandon mining CoinXYZ and move onto mining another more profitable coin.

By abandoning mining of CoinXYZ, the network hash rate decreases, which in turn, improves mining profitability. However, this inevitably causes a further downward spiral in value as other miners consolidate profits. This process continues until there is little to no value remaining.

3. The Ittrium Community

3.1. Community Vision

The second important short-term task/goal (after stabilising price) is engaging, empowering and developing our community.   We vision a community, similar to the Linux community, where governance is decentralized and where technology and innovation is equally driven from both developers and the wider community, alike.

We want to build a strong community where everyone is treated with respect, dignity, courtesy, where people of all backgrounds can work collaboratively together to achieve goals and ultimately to develop a market leading crypto currency. It's important to understand and remember that a community where people feel uncomfortable and/or threatened is not a productive one.

We aim to be a community of professionals, and we ask everyone conduct ourselves professionally. To ensure the community flourishes, we have developed a code of conduct that we ask community members to adhere to. This code applies equally to members of the Ittrium community be they, foundering members, developers, moderators, investors, potential investors, or those seeking help or guidance.

3.2. Ittrium Code of Conduct

We ask all members of the Ittrium community to comply with the following code of conduct;
  i.   Act with honesty and integrity and in the best interests of the Ittrium community.
  ii.   Treat everyone with respect, dignity, courtesy and sensitivity.
  iii. Maintain a cooperative and collaborative approach at all times. Respect that people have differences of opinion; disagreement is no excuse for poor behaviour and/or poor manners.
  iv.   Advocating for, engaging in or encouraging discrimination, harassment or bullying as well as spamming, trolling, flaming, baiting or other attention-stealing or exclusionary behaviours are not acceptable.
  v.   Posting (or threatening to post) personal information (i.e. doxing), sexually explicit, violent or other inappropriate remarks/material is not acceptable.
  vi.   Keep unstructured critique (i.e. FOMO and FUD) to a minimum. Your welcome to discuss your opinion but we ask that any critique is based on evidence rather than speculation.

3.3. Moderation

Remarks or material that violate the Ittrium code of conduct will be enforced by forum moderators via the following process;
  i.   Moderators and will first respond to such remarks with a warning.
  ii.   If the warning is unheeded, the user will be kicked out of the communication channel, typically for 24hrs.
  iii. If the user comes back and continues to being problematic, they will be banned indefinitely.
  iv.   Moderators may choose at their discretion to un-ban a user if it was a first offense and they offer the offended party a genuine apology.

    v.   If a moderator bans someone and you think it was unjustified, please take it up with that moderator, or with a different moderator, in private. Complaints about bans in-channel are not allowed.

    vi.   Moderators are held to a higher standard than other community members. If a moderator creates an inappropriate situation, they should expect less leeway than others.

4. Road Map

We are not going to pretend that we can run before we can walk, and we certainly do not want to over-promise and underdeliver.   For this reason, it should be noted that the time frames listed below are provisional and may vary. We have divided our road map into three streams, Development, Marketing and Community. To ensure each task is completed as quickly as possible, the plan is to have dedicated teams working on each stream concurrently.

Development Goals – Striving to be most technically advanced privacy orientated cryptocurrency.
    i.   Masternode install scripts – Q4 2018.
    ii.   Block explorer – Q4 2018.
    iii.   Masternode install guide videos – Q4 2018.
    iv.   Raspberry Pi masternode functionality – Q1 2019.
    v.   Mobile wallets for Android – Q2 2019.
    vi.   Mobile wallets for iOS – Q3 2019.
    vii.   Web wallets – Q4 2019.
    viii.   Add second 'ATMnode' tier– Q4 2019.
    ix.   Escrow service – Q2 2020.

Marketing Goals - Continuously improving Ittrium brand recognition.
    i.   Online advertising campaigns – Ongoing.
    ii.   Tire 3 exchange listings i.e. Stocks.exchange – Q4 2018.
    iii.   Masternodes.online website listings – Q4 2018.
    iv.   Tire 2 exchange listings i.e. CryptoBridge – Q1 2019.
    v.   CoinMarketCap.com website listings – Q2 2019.
    vi.   Tire 1 exchange listings i.e. Binance – Q4 2019.
    vii.   Acquire commercial partnership with ATM manufacturers – Q4 2019.

Community Goals - Engaging, empowering and developing our community.
    i.   Develop defensive buy wall to maintaining price stability – Q4 2018.
    ii.   Expanding our social media presence – Ongoing.
    iii.   Encoring and promoting community members– Ongoing.
    iv.   Decentralized governance and voting – Q1 2020.

5. Acknowledgements

The Ittrium team would like to thank the open source cryptocurrency community, more specifically, the Bitcoin, DASH, Peercoin and PIVX developers, without their previous contribution this project would not have been possible.

6. Legal Disclaimer

Ittrium is an experimental cryptocurrency, it is not legal tender, is not backed by the government, and accounts and value balances are not subject to consumer protections. Cryptocurrencies are inherently high risk, individuals need to conduct their own research or seek independent financial advice to assess the appropriateness of the information provided and to understand the nature and complexity of their exposure and risk.

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