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WHITE PAPER

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INTRODUCTION

Ingenuity is an investment syndication platform that leverages blockchain technology to create an open market for SMART ideas and projects across the globe. Its decentralized network is designed to connect users with:

- Promising startups and existing businesses in need of funding for new product lines through the SMART Incubator
- Individuals and content creators that are looking for backers supporting their education and careers through the SMART Scholarship program

Both the SMART Incubator and the SMART Scholarships are powered by Ingenuity's native cryptocurrency, INGY. The INGY coins not only act as a medium of exchange on the network, they also allow holders to create SMART Masternodes that are responsible for validating transactions and reaching consensus over the correct state of the ledger of transactions that is the blockchain. Masternodes play a major role in Ingenuity's ecosystem as they both fuel the economy of the SMART Ideas market and grant voting rights in the underlying governance architecture of the SMART Community.

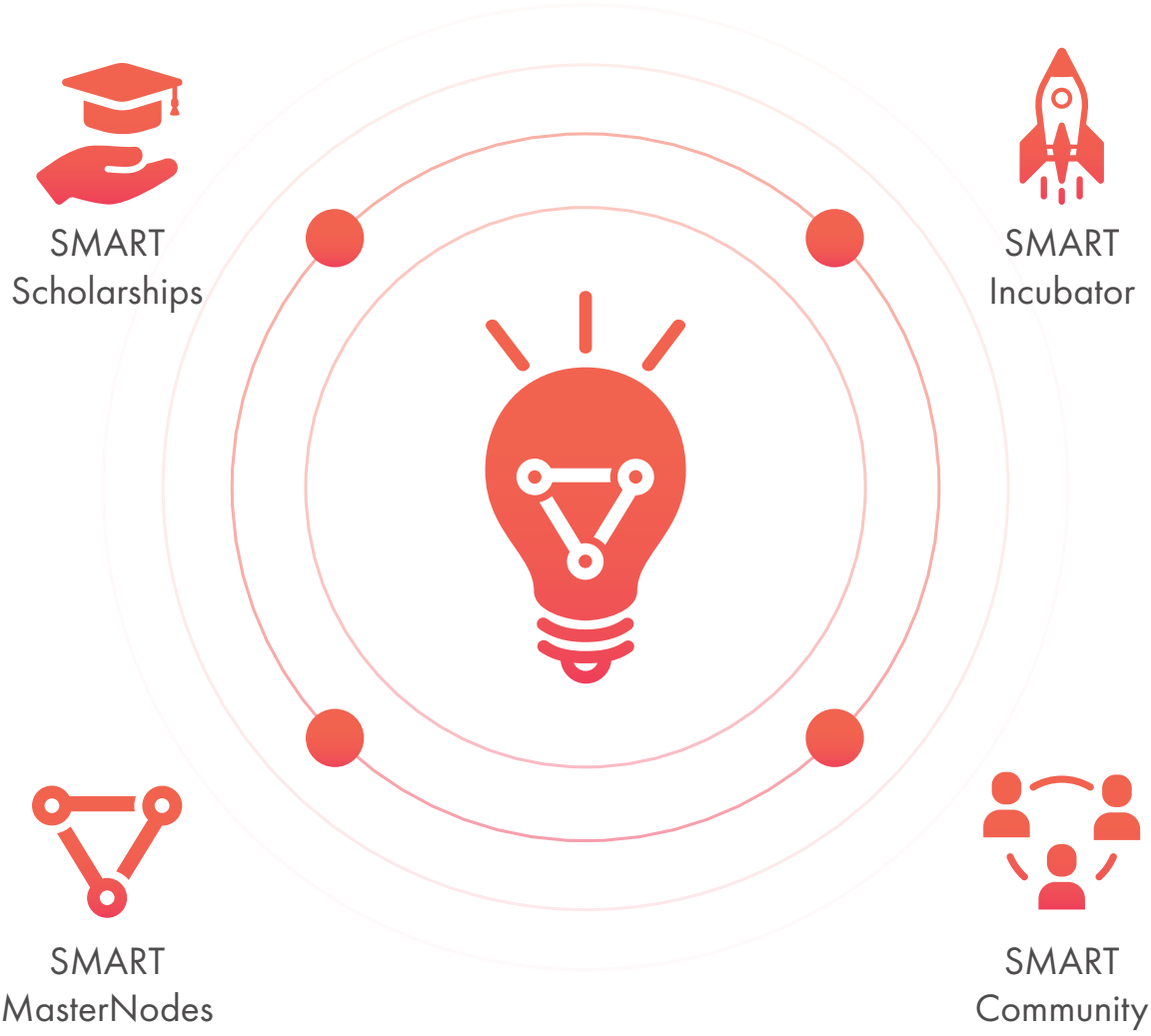
The Ingenuity blockchain is based on a proof-of-stake (PoS) consensus mechanism which lets the SMART Masternode holders earn rewards for transaction validations. What makes Ingenuity's masternodes special is that they are also the key to a novel way of investing that bridges cryptocurrency and real world businesses: SMART Masternodes grant the right to vote for businesses that apply for access into the Ingenuity ecosystem. If the network decides to enter into an investment, the masternode holders are entitled to dividend payouts on the investment in question in the future.

Currently, becoming an early investor in a business is a process that involves high barriers of entry in most jurisdictions, like investor licenses and minimum contribution-sizes that are way outside the league of your average Joe's budget. Regulators put these limitations in place to protect main street and establish best practices. The downside of this is that the regulations lead to a closed and elitist market that segregates smaller investors and shuts them out of a means to build generational wealth. In the United States, for example, only 2.8% of all households are considered accredited. Therefore, 97% of all American households do not invest in private equity, venture capital or hedge funds as their income levels and net worth are not in line with the necessary requirements.[1]

Existing crowdfunding and pooled investing solutions suffer from counterparty-risks due to centralization and generally lack in terms of holding participants accountable. The majority of crowdfunding platforms also do not offer any kind of equity or dividends and mostly act as a way to support and be an early adopter of innovative products. While the JOBS Act introduced significant adjustments to make

[1] D. Albright, J. A. Jones, k. Wales. The Renaissance of the Retail Investor and its Monumental Impact on Marketplace Lending, Equities Crowdfunding, and the U.S. Retirement System: https://daraalbrightmedia.com/wp-content/uploads/2017/11/Reaissance-of-the-Retail-Investor-White-Paper-2017.pdf

crowdfunding and pooled investments more viable in the US, the limitations are still showing. Platforms designed to support content creators have recently been criticized for censorship with many users looking for decentralized alternatives.[2] This is where Ingenuity steps in to offer a decentralized and community-driven approach that will prove to be beneficial to both main street investors and businesses interested in exploring innovative ways of raising capital.



The Ingenuity Ecosystem Components

[2] Following recent events around censorship on platforms like Youtube and – in this case more importantly – Patreon, there has been a push for alternatives and blockchain as well as cryptocurrencies have been brought up frequently as a possible solution.

The Ingenuity Blockchain

Bridging Cryptocurrency and Syndicated Investing

Syndication is a very common practice in the world of investment that allows multiple parties to spread risk by pooling their resources when investing in an upcoming business venture. While angel investors and venture capital firms have been making use of this efficient tool for several decades, the trend to also open up this alley of investing to main street investors is relatively recent. Over the last couple of years, syndication in the sense of crowdfunding has established itself as a valid choice for many startups looking to raise capital. This was mostly made possible because the internet has opened up lines of communications around the world and made money float from A to B freely in an unprecedented way.

Blockchain Technology and Cryptocurrencies

Blockchain technology has been hailed by many as the foundation for a possible Web 3.0 in the making. It could take the free flow of information one step further by making middle men obsolete and providing the users with a much greater control over their data. Data on a blockchain is organized in Blocks. Transactions that occur on the network in question are cryptographically encoded in batches into such a block and then connected to the previous one, forming an immutable public ledger that is distributed to all participants of the network. The participants have to reach consensus over the state of this system of record at any point in time.

Since the advent of Bitcoin, the general public also became aware that this free flow of information on blockchain technology extends to the exchange of money and value. Arguably it is its most proven use case and the Bitcoin blockchain is the strongest and most resilient public blockchain on the planet. This new kind of digital money mirrors some of

the properties that define blockchains like being immutable, "trustless" (in the sense that no third party has to be trusted to verify a transaction) and transparent (Bitcoin is not anonymous by design but "pseudonymous" in the sense that transactions can be observed by everybody at any point in time). It is also characterized by a fixed maximum supply (unlike fiat currencies) and a deflationary monetary policy.

Masternodes and Proof-of-Stake

Like Bitcoin, Ingenuity is a peer-to-peer network and a cryptocurrency designed to be a store of value and a medium of exchange. It inherited these features because development started as a fork from the cryptocurrency PIVX, which is a fork from the cryptocurrency Dash, which in turn was launched as an experimental fork of Bitcoin in 2014. Ingenuity's predecessors however, innovated on Bitcoin's design: They introduced privacy features and expanded on the way that nodes on the networks reach consensus. While Bitcoin's consensus mechanism relies on so-called "Proof-of-Work" (PoW, commonly referred to as mining that requires powerful hardware competing over solving complicated cryptographic operations), Dash added another layer of nodes safeguarding the information on the network that are called "masternodes".

Masternodes fulfill a similar role to miners in that they act as nodes which verify transactions and get rewarded for truthfully recording information on the blockchain. Unlike mining, masternodes do not require powerful hardware but instead the node-operator needs to demonstrate the ownership over a certain amount of the currency in question as collateral. This demonstration of ownership is called "Proof-of-Stake" (PoS). While Dash still requires a mixture of mining (PoW) and

masternodes (PoS), PIVX disposed of the PoW requirement and relies solely on PoS as its consensus mechanism. This makes PIVX the perfect basis for Ingenuity's development in light of the very specific and innovative application in investment syndication and funding of scholarships. A masternode-driven consensus mechanism offers considerable benefits over the more classical proof-of-work in this case which will be explained below.

Ingenuity's Architecture and SMART Masternodes

Ingenuity's coin specifications are similar to those of PIVX with a hybrid consensus algorithm of PoS and SMART Masternode PoS. Changes have been made to the collateral required to run a masternode and the structure of the block rewards over time:

Block Height	PoS (%)	MN (%)	Block Reward	PoS Reward	MN Reward
201-30,000	50	50	3	1.5	1.5
30,001-50,000	45	55	5	2.25	2.75
50,001-70,000	40	60	1.75	0.7	1.05
70,001-80,000	35	65	2.75	0.9625	1.7875
80,001-90,000	30	70	4.25	1.275	2.975
90,001-100,000	20	80	4.75	0.95	3.8
100,001-130,000	25	75	4.25	1.0625	3.1875
130,001-200,000	25	75	3.25	0.8125	2.4375
200,001-250,000	30	70	2.75	0.825	1.925
>250,0001	30	70	1.75	0.525	1.225

Block Reward Schedule

The block size and low block time enable swift transactions on the network that can be executed and monitored from the Ingenuity Wallet and through the Ingenuity Block Explorer. Compared to many other masternode coins, Ingenuity has a low maximum supply of coins (number of coins after emission has ended) with 15,000,000 INGY and a very conservative amount of premined INGY (0.5% of total supply) to fund development, exchange listings and partnerships:

Coin Name (Ticker) **Ingenuity (INGY)**	Premined **75,000 coins**	Coin Maturity **720 block (12 hr.)**
Block Size **3 MB**	MasterNode Collateral **1,000 coins**	POW Block Reward **2 coins (1-10,000 blocks)**
Min. Stake Age **1 hr.**	Hashing Algorithm **Quark (PIVX)**	Last POW Block **200 block**
Max. Supply **15,000,000 coins**	Block Time **60 seconds**	First POS Block **201 block**

While the above might look familiar in terms of technical specifications for a masternode-driven cryptocurrency, Ingenuity's SMART Masternodes are different in a very significant way: Apart from verifying the transactions on the network and receiving rewards for verifying, the holder of a SMART Masternode is also eligible for dividend payouts that stem from the investments made by Ingenuity in real-world companies and product lines. Details regarding the model behind the SMART Incubator and the dividend payouts from investments will be discussed in Section 3, “The SMART Incubator and Business Partnerships.”

The Choice of Proof-of-Stake over Proof-of-Work

2018 saw a wave of projects that are aiming to extend the use-case of blockchain technology and cryptocurrency, enabling the tokenization of real-world assets. Reviewing the efforts made so far, there is one major concern that has been brought up when it comes to Proof-of-Work networks that aim at tackling this undertaking: So called 51%-attacks represent the greatest threat a blockchain can face: If a single party succeeds in taking over the network by providing more than half of the computational power that is used to validate transactions, they are able to double-spend on transactions and even initiate a reorganization of the chain.

Virtually every PoW blockchain out there except Bitcoin is easily susceptible to 51%-attacks as soon as the respective algorithm shows up on websites that rent out hashrate for crypto mining purposes.[3] As long as there is enough hashpower up for rent and the costs of renting do not exceed the potential profits of executing an attack, the attack becomes a viable option. This calculation usually involves the market cap of the cryptocurrency in question as well as the size of the network. Highly valued currencies usually also have a relatively high amount of hashpower devoted to their chain but usually they are not secure enough if they are not Bitcoin.

The scenario presented above is scary enough for cryptocurrencies in the traditional sense. If we now introduce the value of assets that are governed by the blockchains to this equation, this escalates the situation further. Suddenly, the cost-reward ratio shifts greatly in favor of an attack. Potentially, the sum of profit shares on the Ingenuity network could reach

[3] D. Albright, J. A. Jones, k. Wales. The Renaissance of the Retail Investor and its Monumental Impact on Marketplace Lending, Equities Crowdfunding, and the U.S. Retirement System: https://daraalbrightmedia.com/wp-content/uploads/2017/11/Reaissance-of-the-Retail-Investor-White-Paper-2017.pdf

very high numbers after more and more ventures have been founded through the SMART Incubator program, aggregating a huge attack. Potentially, the sum of profit shares on the Ingenuity network could reach very high numbers after more and more ventures have been founded through the SMART Incubator program, aggregating a huge potential value.

Ingenuity is being developed with that goal in mind and it is a reason why the team chose to build on a Proof-of-Stake consensus mechanism over the more classical Proof-of-Work approach. It is impossible to attack a Proof-of-Stake network by renting hashpower. An attacker would have to buy enough coins on exchanges to then stake more than 51% of the circulating supply in order to gain control. Liquidity issues and the way price moves on exchanges usually prevent such efforts and on top of that, the price of INGY should be able to quickly adjust in reaction to the value of potential dividend payouts from the incubator program.

SMART Incubator and SMART Scholarship Programs

Ingenuity has been running a set of masternodes since its inception, using the rewards exclusively to increase the node count over time and increase the funds for the SMART Incubator as well as the SMART Scholarships. These two programs sit at the heart of Ingenuity's operation: The incubator is the vehicle for pooled investments by the SMART Masternode holder community in up and coming businesses and product lines while the scholarships enable individuals across the globe to fulfill their potential and bring their own innovative ideas to life.

The fact that it is Ingenuity's masternodes that are generating the funds for the Incubator's investments is a crucial part of the design: The individual funds of SMART Masternode holders are never part of an investment. They are eligible for dividend payouts and play a role in the Incubator's governance, but they are not partaking in the investment process with their capital, moving their own individual investor status out of the equation.

During the initial development phase, the Ingenuity team will actively seek out and engage potential businesses in order to establish the first partnerships and create the first investment opportunities. With 4(u), Ingenuity already managed to on-board a line of skincare products that are available globally through the 4(u) website and Amazon.com. Ingenuity has become an early investor in this product line and therefore masternodes will be eligible to dividends from future profits. To ensure correct earnings reports by the funded projects and the fair compensation of the SMART Masternodes, Ingenuity is partnering with independent auditing companies overseeing and monitoring the ongoing

partnerships. The implementation of an oracle functionality to further make the import and documentation of data more transparent is being considered too.

As mentioned earlier, holders of SMART Masternodes will enjoy dividend payouts from the SMART Incubator's investments with varying shares in the profits on a quarterly/bi annually/yearly basis. For the first venture, the 4(u) skincare product line, SMART Masternodes are going to collectively receive 12.5% of all profits, distributed evenly among all masternodes. The dividend payouts happen in Bitcoin (BTC) in order to avoid unnecessary sell-pressure on the INGY order books on exchanges and also to avoid unnecessary slippage that would occur converting fiat currency to BTC and then to another cryptocurrency. The dividend payouts from the syndicated investments in BTC are separate from the usual masternode rewards that holders earn and should provide an incentive to hold on to nodes, resulting in a more stable market for INGY than what is usually the norm on pure PoS coins.

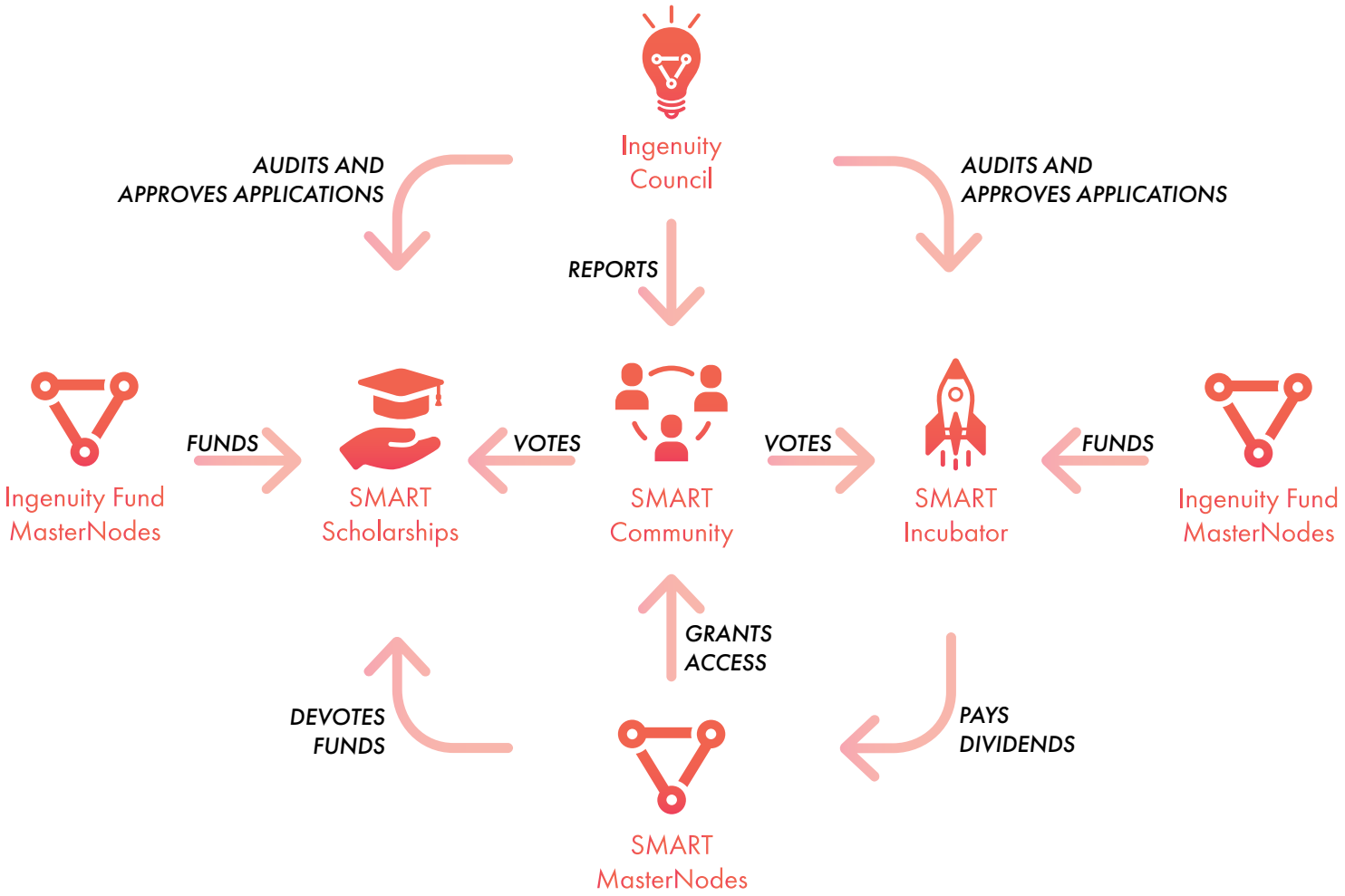
In the future, the community of SMART Masternode holders will be able to govern investment decisions and monitor dividend payouts through the SMART Hub, Ingenuity's online governance platform.

Decentralized Governance

The SMART Hub Community

"However, if we acknowledge that the biggest barrier to a fork is the desire to maintain a network effect, then we come to the conclusion that we must maximize Voice of network participants. The best way to maximize voice is through effective governance."
-Luke Duncan,"Thoughts on Governance and Network Effects" December 12, 2017

The SMART Hub is Ingenuity's solution for efficient network governance. It is going to be the voting platform used by SMART Masternode operators to validate and sign up their nodes for dividend distribution. Further down the line, the hub will also allow the community to decide which projects are worthy of joining the SMART Incubator.



Ingenuity's Governance and Ecosystem

SMART Masternode Sign-Up Process

After logging into their SMART Hub account, Masternode holders will be able to register their Smart Masternodes in order to be eligible for future dividend distributions. In order to do this, a node operator has to use his Ingenuity wallet to send a signed transaction of 200 INGY to a dedicated address. These coins will be burned and permanently removed from circulation (thus reducing circulating and maximum supply). The node operator then enters 1. his Ingenuity address and 2. his signature into the form presented on their SMART Hub account. This proves his ownership over the registered node. The process can be repeated until the operator has connected all his nodes to his SMART Hub account.

The Vision for the Future SMART Hub

After the successful sign-up process, SMART Hub users will be able to comfortably:

1. Monitor their nodes to see if they are up and running or not

2. Add and remove individual nodes from the monitoring and governance functionality

3. Vote on which projects should be allowed to join Ingenuity's incubator next (votes can be cast in batch for all available nodes at once or selecting individual nodes).

As development progresses, the Ingenuity team will make efforts to further decentralize aspects of the economic and governance model and the SMART Hub is going to play a major role when it comes to ease of use and general user experience. Start-ups are going be able to apply for funding on the SMART Hub website after undergoing a preliminary vetting and curating process. Charitable projects and scholarships could also be put to vote using a similar mechanism. Even crowd-sourced efforts of due diligence on projects could be coordinated on the hub, further strengthening and leveraging the Ingenuity community.

Kickstarting the First Venture

4(u) Skincare

Until the governance system is put in place with all the functionality discussed so far, the Ingenuity team is dedicated to get the project moving and the first dividend payouts flowing by actively engaging businesses as potential partners. Ingenuity is proud to have already secured the first investment in a new product line manufactured by a pharmaceutical skincare company in New York: 4(u)'s new FDA-compliant product line of direct acid peels and cleansers are formulated using only natural and pharmaceutical-grade ingredients. They will ship domestically as well as internationally. The 4(u) products are going to be available on their online store and through Amazon.com with 12.5% of all profits being distributed among the Ingenuity SMART Masternodes.

This is just the first example of a product line that profited from the SMART Incubator with many start-ups and products waiting to be funded in the future.

Striving for Regulatory Compliance

Ingenuity aims to become a decentralized solution for investment syndication and crowdfunding that can rival the established centralized companies currently running on the web 2.0. With this goal in mind, the team recognizes the need for compliance with all applicable regulations and is looking forward to working closely with regulatory bodies in the United States.

The team will seek out guidance by the U.S. Securities and Exchange Commission (SEC) on both its initial presale of INGY to users interested in setting up masternodes to support the network[4] as well as its general economic model of decentralized investment syndication. The JOBS Act[5], especially Title III that came into effect on May 16, 2016, already offers great flexibility and opportunity in setting up what regulators refer to as "equity crowdfunding" platforms. Ingenuity's innovative architecture, however, represents a novel approach in that it is not a platform that acts as a middleman, transmitting money from an investor to a start-up or existing business: While holders of an INGY SMART Masternode are entitled to dividends from the SMART Incubator, they do not have to and will not invest their own funds into the companies in the Incubator. The funds for investments stem from the masternodes being ran by Ingenuity itself. This is a structure "sui generis" (without precedent) in the world of investment syndication and the team is excited to explore the optimal legal setups for it in close cooperation with the SEC.

[4]Commissioner Hester Pierce recently commented on how ICO tokens that have not been sold as an investment contract but offer utility on an existing network should not be deemed securities. As Ingenuity did not do an ICO but sell INGY coins to users interested in running a masternode to support the network and offered full utility of a payment network and masternode support from day one, the team is very confident in this matter.

[5]Securities and Exchange Commission: https://www.sec.gov/spotlight/jobs-act.shtml

Furthermore, the team is already in preparations to apply for the Bitlicense issued by the New York State Department of Financial Services (NYSDFS). Since the Bitlicense came into effect on August 8, 2015, it has been criticized for acting as a "bottleneck" for cryptocurrency-oriented businesses in the state of New York and has even been described as "an absolute failure" by ShapeShift's CEO Erik Voorhees[6].

More recently, however, the NYSDFS has been granting the license more frequently, with several entities like the Bitcoin Atm operators Cottonwood Vending and LibertyX, the digital payments company Square, the cryptocurrency market maker Genesis Global Trading as well as the stock and crypto trading app Robinhood receiving their licenses within the first two months of 2019. Still, Ingenuity understands that the application will take time and has to be approached prudently. Therefore the team will will work seek guidance by experts that have experience with the process.

[6] http://fortune.com/2018/05/25/bitcoin-cryptocurrency-new-york-bitlicense/

Roadmap

Since its launch and the initial pre-sale of masternodes, Ingenuity has made good progress on its way to become the first fully functional blockchain- and cryptocurrency-based platform for crowdfunding and syndicated investment. With stable wallets on all major operating systems, the Ingenuity Block Explorer and listings on two exchanges (Cryptobridge and Escodex), the basic infrastructure is already in place. After securing the first venture with the 4(U) skincare brand, the team is already in talks with several other potential partners and on track to distributing the first dividend payouts on stage 6 of our roadmap.

STAGE 1:
Concept
Concept Generation
Team Formation

STAGE 2:
Implementation
Block Explorer Release
Windows, Linux, iOS Wallet Release
Bounty & Airdrop Competition

STAGE 3:
Marketing
Pre-Sale
Marketing Campaign
Discord Marketing
CryptoBridge Listing
Masternodes.Online Listing
Coin Burn

STAGE 4:
Operational Expansion
Expand Team
First SMART Project
Strategic Partnerships
Whitepaper Version 1.1

STAGE 5:
Marketing Expansion
YouTube Marketing
Social Media Marketing
Blog Content Marketing
Telegram Marketing
More Exchange Listings

STAGE 6:
Legal & Utility
SEC Regulatory Framework
Apply for BitLicense
SMART Hub Governance Platform
POS Web Wallet
First SMART Scholarship
SMART Dividend Implementation
Second Joint Venture

The Ingenuity Roadmap

The release of this updated whitepaper checks off one of the last items on Stage 4, so for the immediate future the team is going to work on a major marketing cycle in order to get the word out on Ingenuity and the SMART ecosystem. Apart from content creation and advertisement on Twitter, Youtube, specialized blogs, and Telegram, the team will be focused on bringing INGY to more exchanges.

Stage 6 of the roadmap will see the final pieces fall into place, including Ingenuity's governance architecture, a user-friendly and staking-ready web wallet, a second joint venture and the first SMART Scholarship that will mark the beginning of Ingenuity's charitable branch. Another major milestone will be the application for the New York State BitLicense and working closely with the SEC to insure regulatory compliance. This will ensure sustainable growth for the Ingenuity ecosystem and a transparent environment for its users and partnered businesses in the future.

As the project is moving swiftly and this version of the roadmap will quickly become outdated, please visit us on the Ingenuity website or on our social media channels listed in the next page under Useful Links.

Useful Links

Website:
https://ingy.io/

Block Explorer:
http://explorer.ingy.io/

Masternodes.Online:
https://masternodes.online/currencies/INGY/

Exchanges:
https://wallet.crypto-bridge.org/market/BRIDGE.INGY_BRIDGE.BTC
https://www.escodex.com/

Twitter:
https://twitter.com/Ingenuity_Coin

Discord:
https://discordapp.com/invite/AbtDpCQ

Bitcointalk:
https://bitcointalk.org/index.php?topic=5064589.0