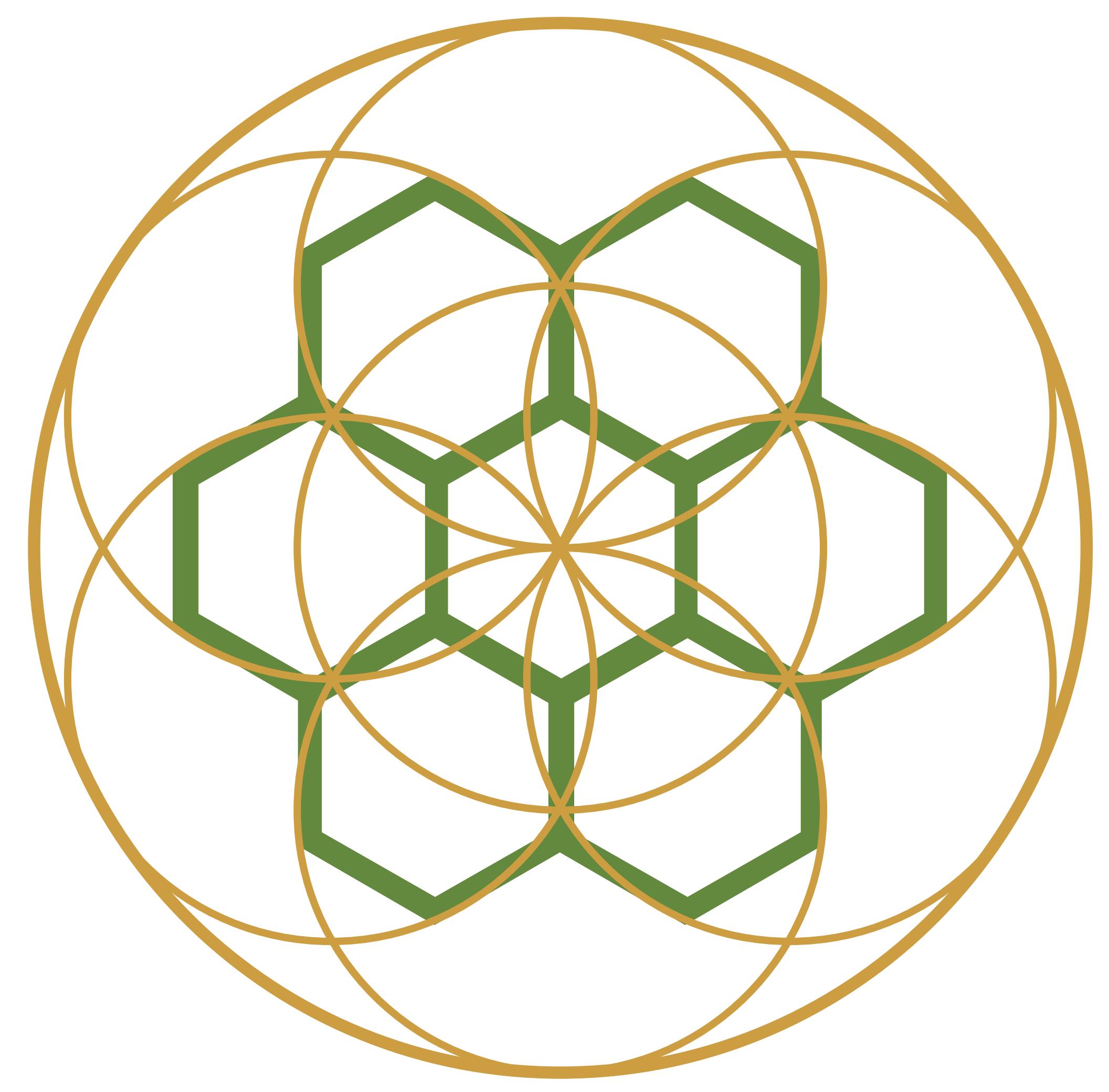




S33D



*- Weaving a live trade canvas to share stories of ancient DNA with
cryptographic precision -*



Volume One

'Fed Up'

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"If you read onward you become a part of this tale."

S33D

1.1 What?

S33D is an educational cryptoprative that aims to build communities and facilitate their harmonisation with self, other and the natural world. Inspired by the fractal nature of this experience, S33D focuses innovation around consensus mechanisms, decentralised trade webs, and open source libraries, unlocking the potential of organic assets.

"Biomimicry is innovation inspired by nature. In a society accustomed to dominating or 'improving' nature, this respectful imitation is a radically new approach, a rEvolution really. Unlike the Industrial Revolution, the Biomimicry Revolution introduces an era based not on what we can extract from nature, but on what we can learn from her." **Janine Benyus**

With the use of both virtual and physical network layers, S33D aims to build an augmented encyclopaedia germinating out of a vision for a plant fuelled utopia, a playground of edible education open to all, growing the custodianship of a globally distributed wealth reserve.

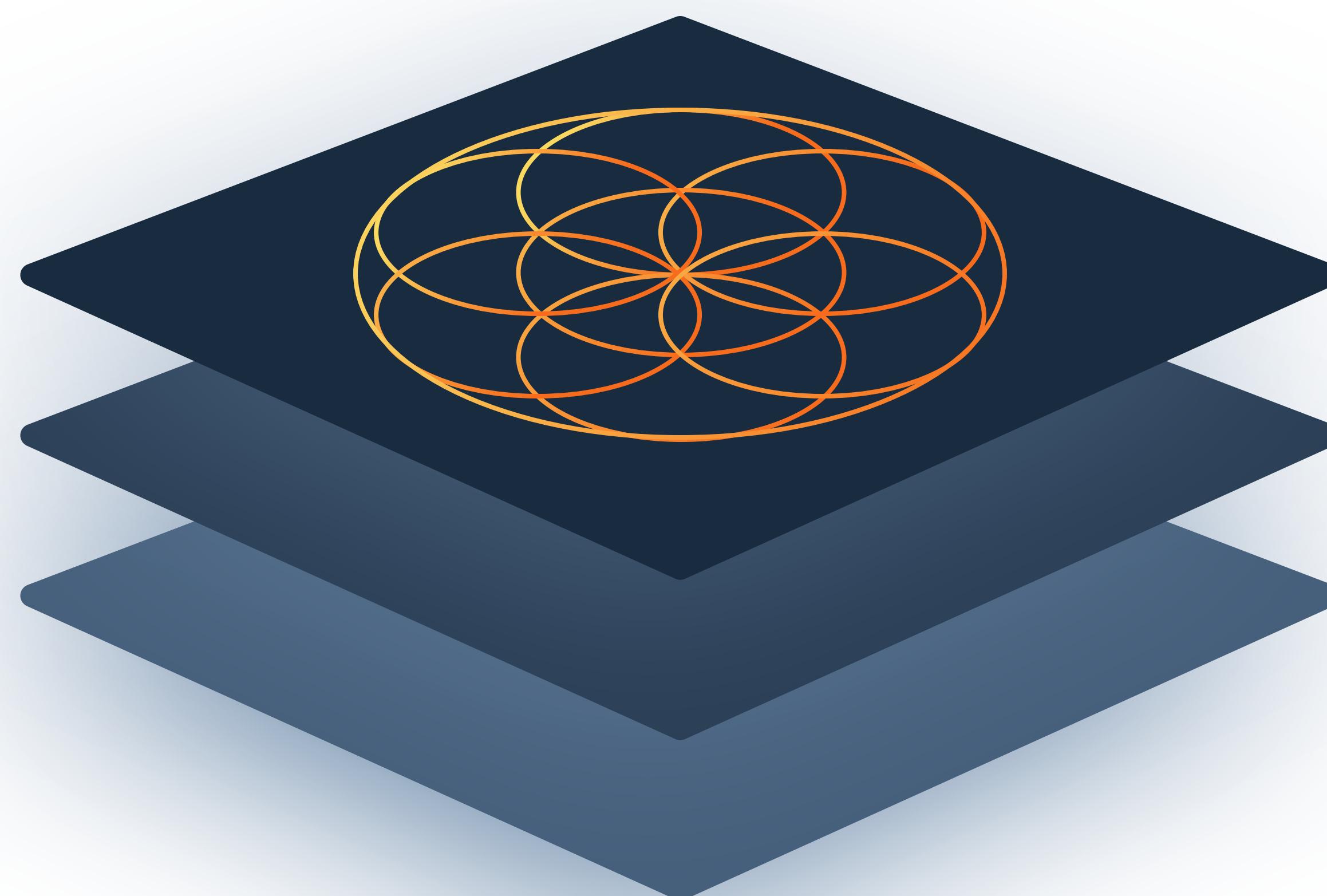


Figure 1

1.2 Why?

The legacy trade paradigm, and subsequently the way the world's value systems have been calibrated, no longer serve the full potential of the planet and its diverse range of inhabitants. Within the new trade paradigm, programmable capital offers a creative path to fulfil an ancient human vision of preserving and amplifying the Earth's voice and her naturally abundant stores.

Sensing the immeasurable value that this planet's biodiversity represents, we see value in a product's history. Collectively, we can use recent cryptographic advancement to evolve the integrity of this communication.

"It is now highly visible to take care of everybody on Earth at a higher standard of living than any other have known. It no longer has to be you or me. Selfishness is unnecessary. War is obsolete. It is a matter of converting high technology from weaponry to livingry."
Buckminster Fuller

To do this, we are coalescing community tools, old sets and new.

1.3 How?

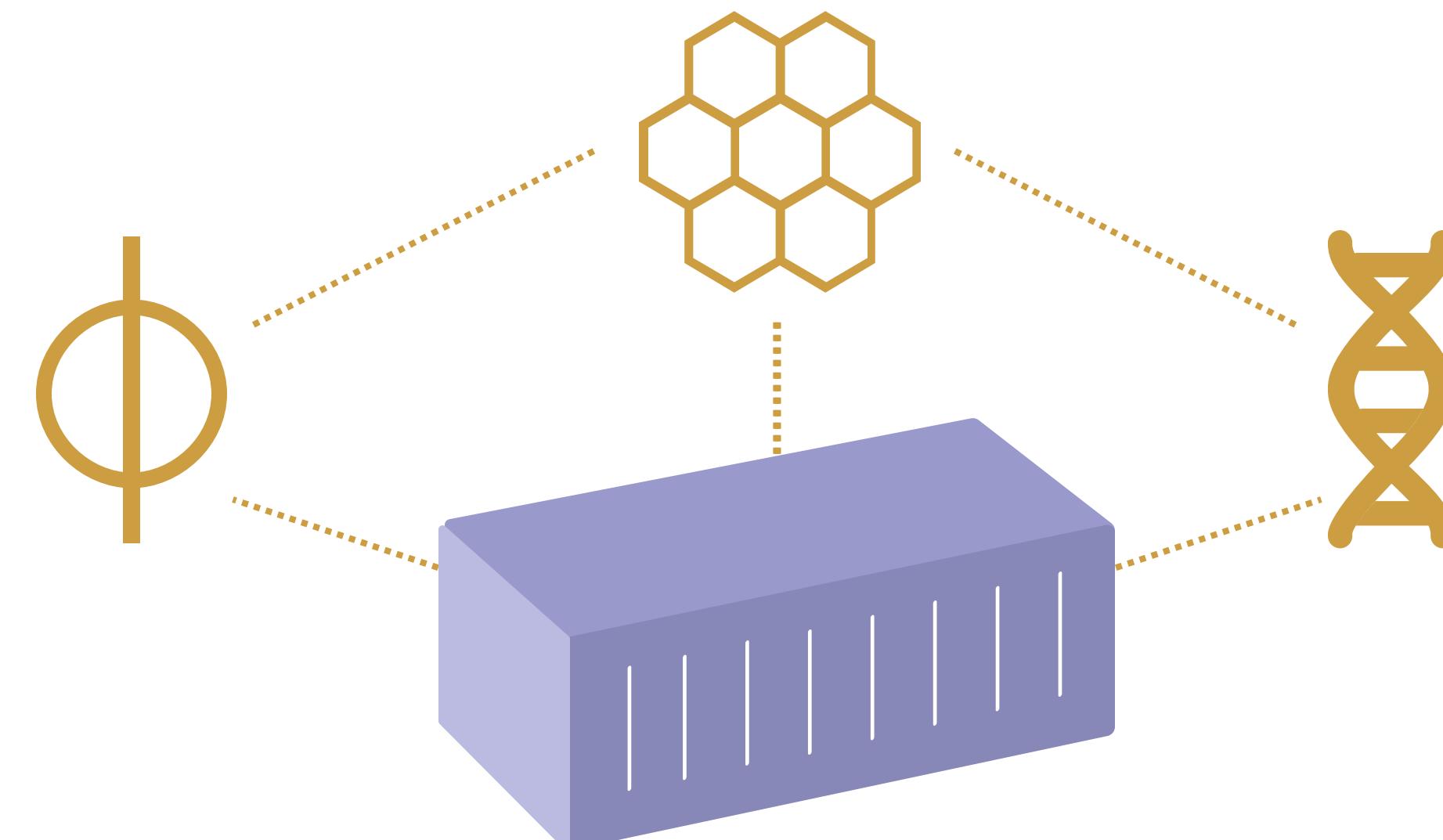


Figure 2

S33D will form around a virtual layer of dApps (Chapter 2), and a physical layer of S33D Pods (Chapter 3), creating an organic computer membrane energised by you.

By focusing innovation on smart contract trade templates, we can foster biodiversity and encourage supply chain transparency. S33D dreams of creating an aware & decentralised trade web that offers promise to rapidly amplify crop security, food access, and healthy consumer choice while restoring the earth's systems to their natural purity.

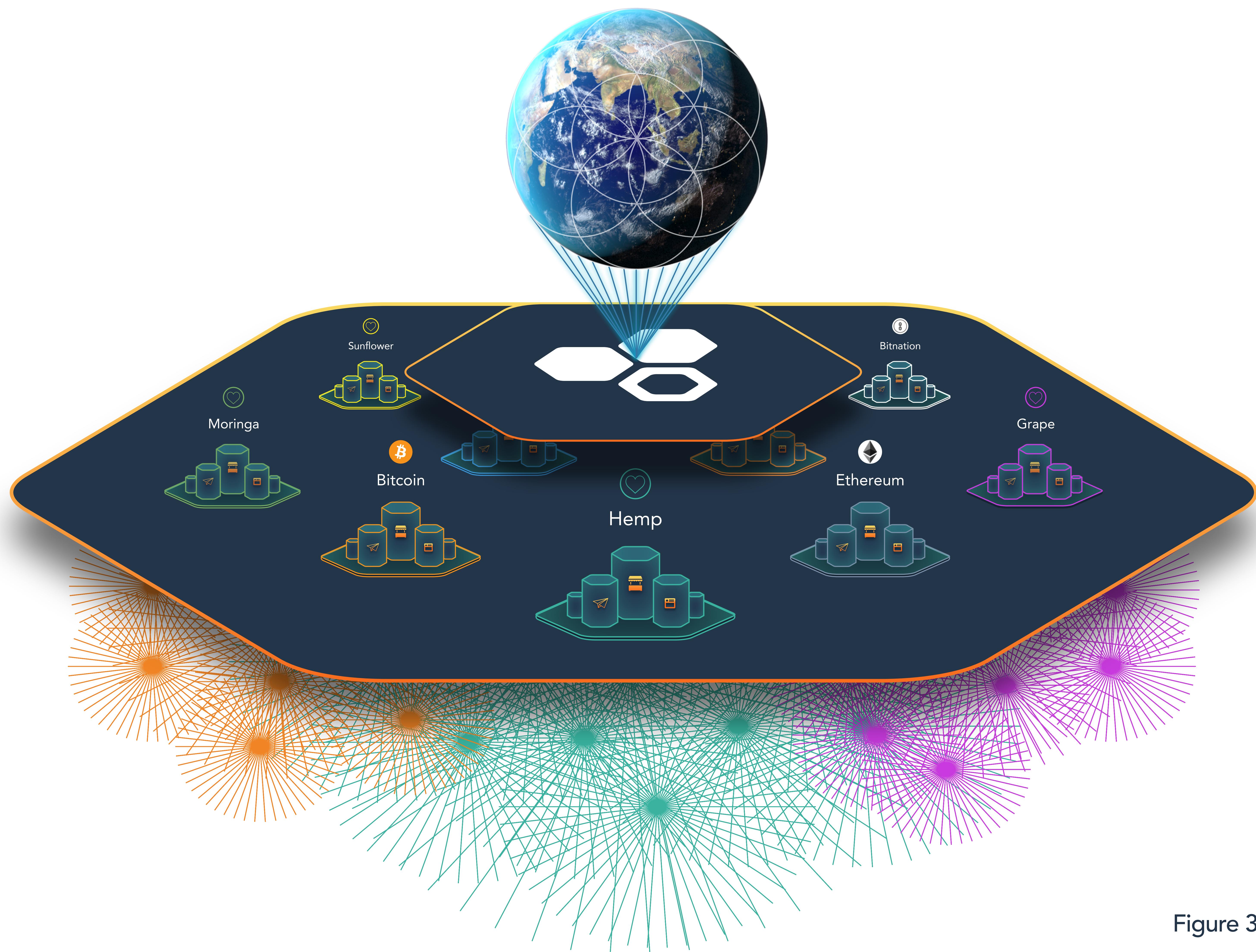


Figure 3

The S33D Pre-Sow

2.1 The NowTee - Exploring the Concept of Proof

To begin, we are creating a provably rare and provably traceable product to demonstrate the potential of S33D's vision, a community funded "seed to shirt" campaign.

We ask early supporters to provide seed funding to build S33D Alpha. In return we will produce a unique t-shirt that will be both provably rare and provably traceable back to its sower.

Provably Rare

One of blockchain's many facets is the ability to create digitally scarce assets. In the same way, it will be possible to create provably rare assets by linking them to an address (QR code) hashed onto the blockchain and embedding it within a smART canvas.

Pepe Cards have shown us how communities can use a blockchain to create rare pieces of art, we would like to do the same with the NowTee's, however, NowTee's will also have their own provenance story to accompany their rarity.

Later on, new designs can be made and the community can decide upon batch numbers and their accompanying artwork. We see the NowTee as a new medium for artists to explore the benefits of cryptography.

"I dream of painting and then I paint my dream" - Vincent Van Gogh

Provably Traceable

Upon receiving their t-shirt, people will be able to use S33D's MVP app to scan their NowTee's uniquely generated QR code and access it's provenance from seed to shirt. The creation of provably traceable goods via smART canvases (Chapter 3.2) is a convenient way of translating a complex story into a more involved experience.



Figure 4

Hemp

Hemp will be the material used to create the t-shirts. There are **2 billion t-shirts made a year**, each one using on average **700 gallons of water**. The vast majority of these t-shirts made are **cotton**, a crop that covers over 2.4% of the worlds agricultural land but accounts for a humungous **16% of global pesticide use**.

Figure 5

Hemp uses 2.1 ltrs of water to grow 1kg of fibre, compared to the 9.7 ltrs required by cotton, and requires no pesticides whilst producing on average twice as much fibre per acre.

Figure 6



- | | |
|--|---------------------------|
| | Carbon Sequestration |
| | Soil Detoxification |
| | Good Rotation Crop |
| | Less Water |
| | Organic / Zero Pesticides |

2.2 Seed Capital Allocation

With this early seed funding, we hope to build a dedicated team that share our dream to grow S33D Alpha.



Figure 7

Virtual Network

S33D aims to germinate an ecosystem of dApps (HIVE, PhiTrade) and portals (PlantLabs) that aid community development, consensus formation, P2P trade, and natural learning.

3.1

HIVE



HIVE's main function is to unite community in collaborative experiment, progressing with the formation of the S33D DAO, a collectively managed capital store created from the stakes required to generate your personal garden keys, your S33DiD.

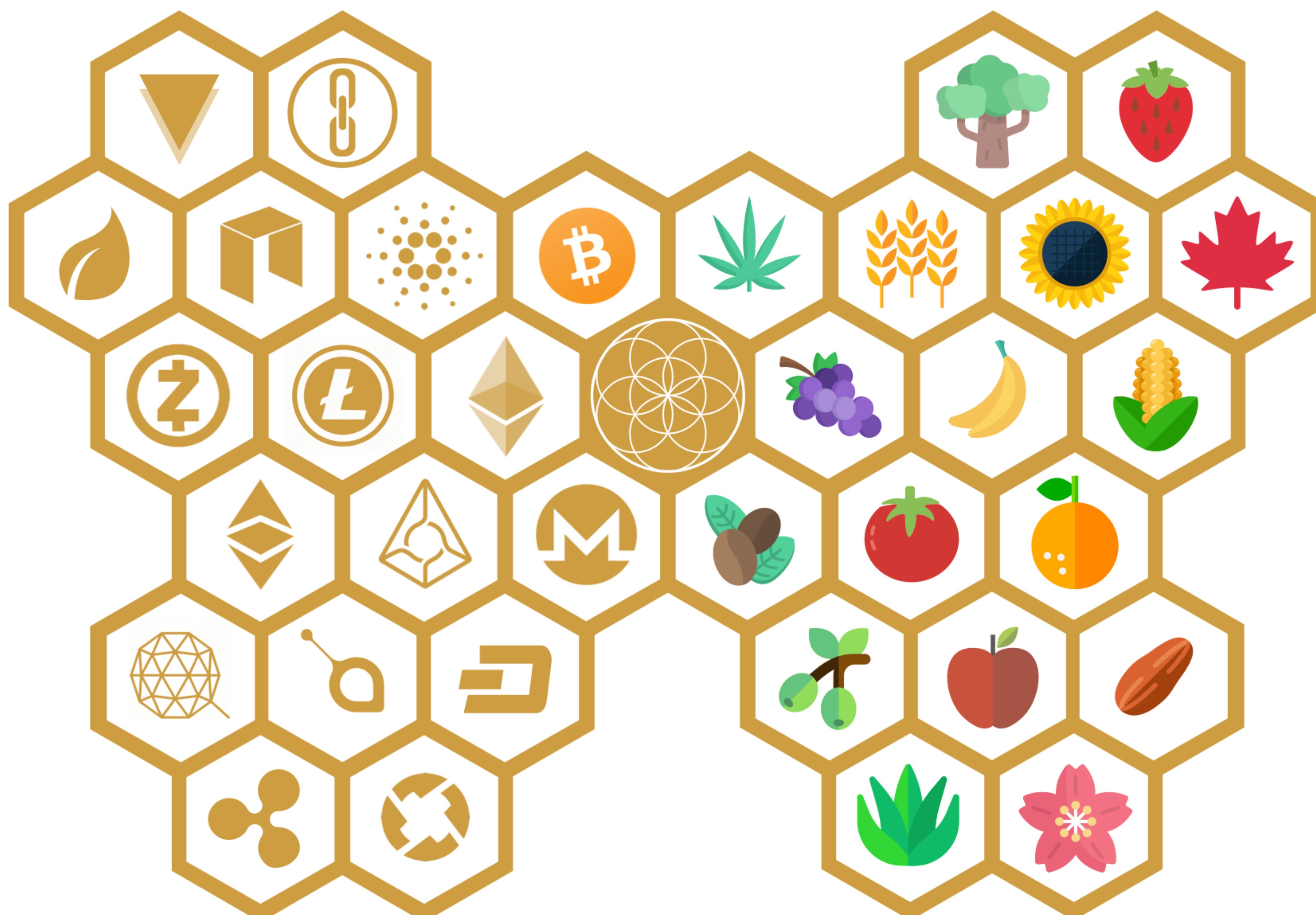


Figure 8

Gardeners may then use their keys to vote in progressive census rounds, curating the **S33D Index** and confirming entry into a distributed lottery - a *Proof of Work (PoW)* mechanism to mint and distribute S33D credits*.

Each gardener is able to take part in every new census block, voting for their 3 favourite crypto-assets or **Plant Hearts**. For example, if you think the DAO should made up of Bitcoin, Ethereum, and Hemp, you will vote for those 3. The Index will then be updated each census round, creating a living investment index that is powered by yOur hive mind.

1.  Bitcoin

2.  Ethereum

3.  Hemp Heart

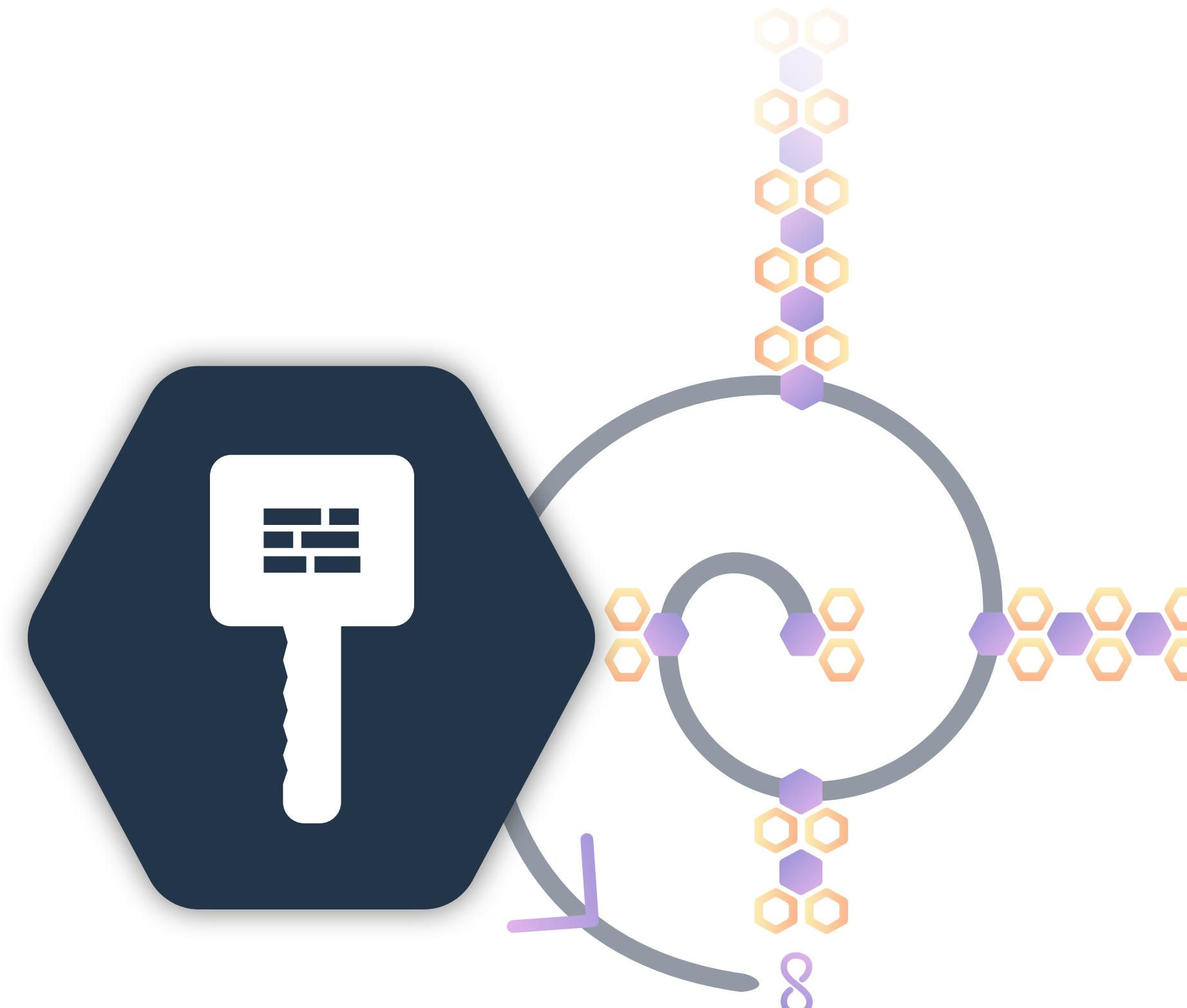


Figure 9

As more people stake their **Initial Garden Offering (IGO)** and join S33D, the DAO will grow. The incentive is for the community to act for the hive and vote on what they feel are potentially worthwhile investments. Naturally, the intelligence of the hive will be represented by how well the Index performs.

*As an incentivise for gardeners to take part and vote in the S33D Index, each census round will act as a lottery whereby active participants have the chance of winning newly minted S33D credits (66% to be distributed to all voters, 33% to one party). The community is therefore encouraged to engage in consensus, as well as memeing the S33D credit into existence. We call it *Proof of Play (PoP)*. The size of the census blocks are scaled in line with phi ratio (3,3,6,9,12...)

As mentioned, the HIVE dApp will also be home to a fractal network of Hives, social education spaces focused around different plant species or crypto-assets. Users will be able to build, join, and access the Hives of their choosing, customising their HomeHive.

Each Hive also has its own storyboard, a social feed specific to each plant or crypto-asset. Users can upvote posts on storyboards they find it insightful, creating a system whereby good information is easily filtered to the top of each Hive.



Figure 10

For their efforts, content creators can be rewarded with Honey, a tradable and traceable reputation token that is rewarded based on the amount of upvotes a post receives, we call this **Proof of Open Heart (PoOH)**. Honey flows through the network following hive attention, rewarding users for curating open-source databases. Hives will also have their own market, as well as a crowdfunding space for projects on the Hives' vibe.

"If the person you are talking to doesn't appear to be listening, be patient. It may simply be that he has a small piece of fluff in his ear." - A. A. Milne

3.2

PhiTrade



S33D's second native dApp, PhiTrade, will serve as a geo-local trade matching platform where users can trade seamlessly using smart contract trade agreements, preserving the provenance of products on an immutable blockchain. Anyone will be able to create a smart contract for their products, sowing together a smARTcanvas of posts, weaving information into a product's DNA throughout its life cycle.

We encourage growers and craftsman to create a storyboard within their product's contract that will then be accessible at the moment of trade by simply scanning a QR code. Storyboards can be compartmentalised into threads (collections of posts) that tell the story of a product.

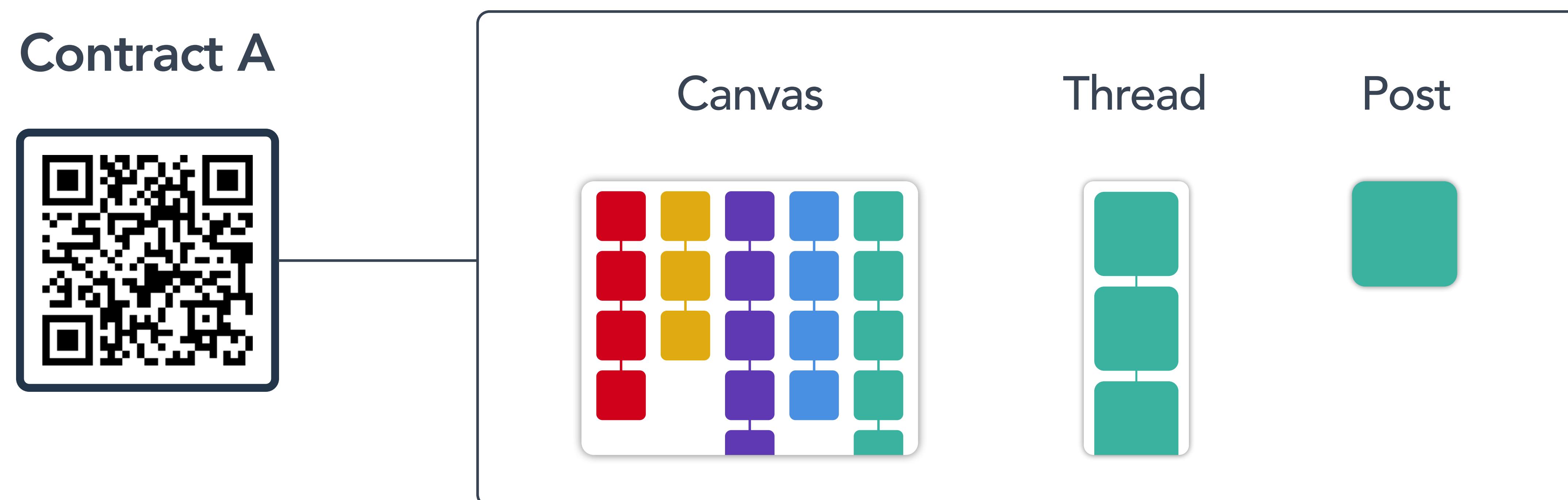


Figure 11

For example : growing techniques, feeding, soil preparation, harvest conditions could all be documented. These threads then create a canvas, a storyboard, which can then be packaged into smart contracts and accessed at the moment of trade by scanning the products unique QR code.

Some supply chains are longer than others and will require a product passing through multiple hands at different stages of its journey. Each trade you make will be saved to your transaction history, and you can access any previous contracts you wish and reference them within your own contracts for convenience.

Growers will be able to use this technology to seamlessly tell the story of a product, giving the consumer more information and knowledge of how their product was created. This allows for a more transparent supply chain by incentivising provably traceable products, reconnecting the grower and consumer like never before.



Figure 12

PhiTrade's smart contract trade agreements will also be the ***Proof of Trade (PoT)*** mechanism to release different **Plant Hearts** (a native token given to each plant Hive), created at the moment of trade. They act as a "plant mile", a type of credit that rewards gardeners for using the S33D Network to sow a global open trade web. Pods can also be used for 3rd Party Verification of trades and can also be rewarded in the process.

We hope S33D's smart-trade technology will also enable the **S33D Distributed Library (SDL)** to flower. Traders will easily list contracts for the products they sell at local library markets, more accurately gauging demand and in turn collectively creating a new playful approach to sourcing and consuming food, materials, and medicine. Simultaneously, we'll have the opportunity to educate ourselves on the origins of our consumables, aspects of the various cultures they connect around, while also evolving increasingly sustainable and diverse supply chains.

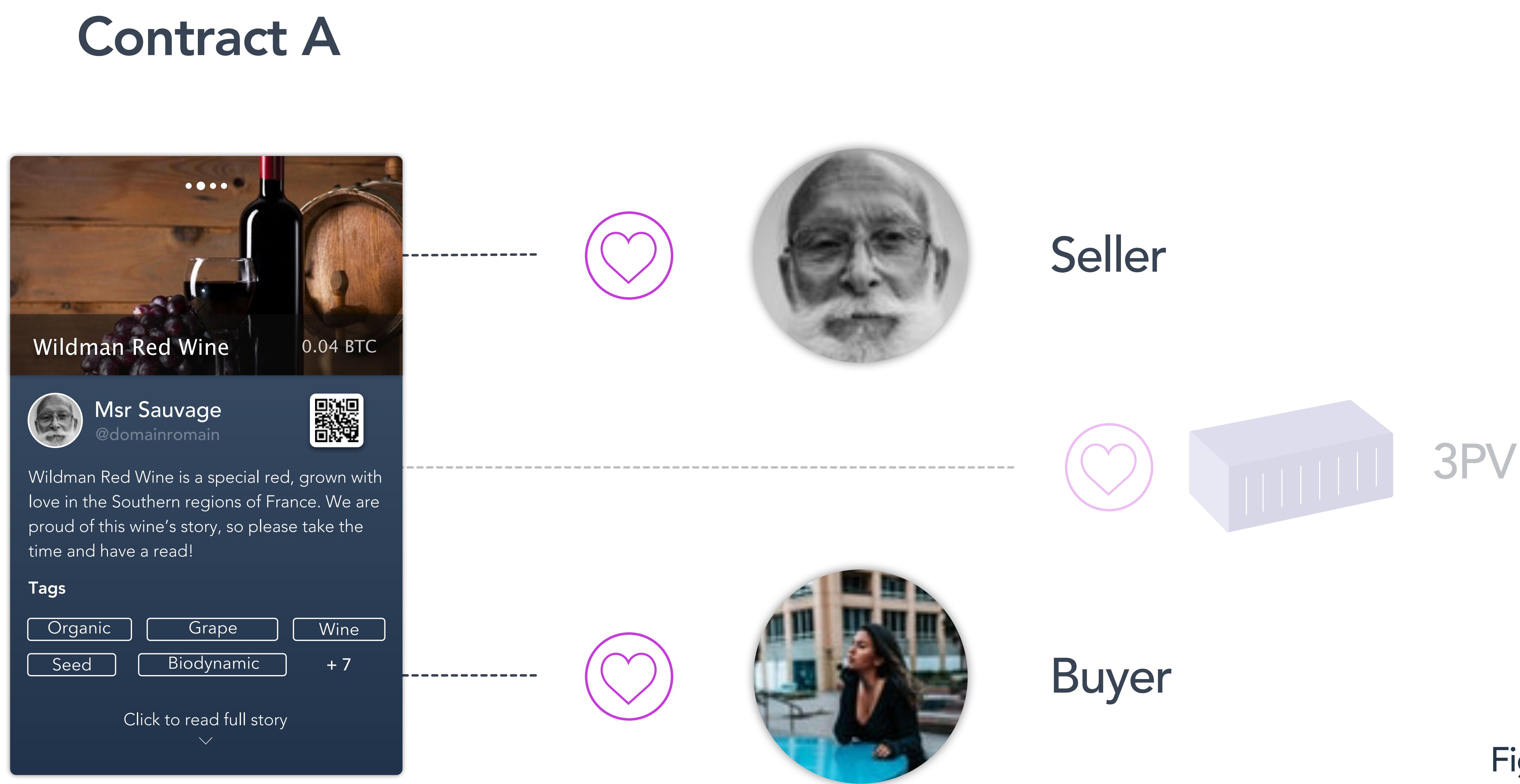


Figure 13

"Diversity goes hand in hand with decentralisation, and the creation of decentralised, biodiverse food systems is the key to design a world without hunger. For this, a shift from globalisation to localisation is vital [...] Localisation reclaims food as nourishment, expands community control of food systems, and promotes food democracy and food sovereignty"- Vandana Shiva

3.3 PlantLabs



PlantLabs will act as a desktop portal centred around mapping trade flows, trees, census indexes, as well as serving as an open-source plant knowledge library. This will be a hugely powerful tool that people can creatively harness, imagine an augmented plantpedia as tomorrow's classroom jumps into the jungle.

Trade and knowledge flows can be accessed and mapped via an evolving block explorer with specific strands corresponding to each plant species.

The left screenshot shows the PlantLabs dashboard with four lab icons: S33DLab, HempLab, CoffeeLab, and GrapeLab. The right screenshot shows the Zimbabwe S33D Bank page, featuring a photo of a shipping container, a circular inset of a person working in a garden, and a grid of seed samples for various plants.

Figure 14

S33D Lab will also be available for exploring S33D's physical network. Find gardens and libraries near you, as well as finding out information held by each one: seeds, books, plants, and nodes. With this, we will be able to map a collective library, node network, and distributed seed bank.

PlantLabs can also be used for plants that won't necessarily be traded. For example, many trees won't produce a traded commodity, however, trees have one of the most important roles in ecosystems by acting as nodes, often transporting nutrients and oxygen to their neighbours. We would like to see the creation of a "tree census", a map of the world's greatest trees and their accompanying data. From this, we could then begin to create storyboards that are pinned to a tree's location, creating a new type of geographical notary virtually tied to a tree.

Physical Network

4.1 The S33D Distributed Library (SDL)

S33D aims to sprout a distributed library of S33D Pods around the world. Pods are creative community spaces germinating out of up-cycled shipping containers, evolving and embodying the principles of local community while recognising the value of global communications.

As trade, education, & the earth's environment harmonise, the **S33D Distributed Library (SDL)** will help P2P trade blossom, ushering in a new era of open access to quality products and their provenance trails. The pods' designs are encased in shipping containers for security, namely protection from wearing elements, as well as the convenience and relative flexibility they offer regarding movement and their environmental impact on their respective locations.

By building physical locations for trade communities to self-organise, each pod facilitates the weaving of a distributed trade web and its accompanying live data stream. Pods act as open access and curation points to various pre-existing libraries of educational resources & research, as well as secure storage spaces for a globally distributed seed bank. Furthermore, each pod will allow trades to be community validated, and strengthen various global blockchains by growing their potential node population.

We are confident this physical network can accelerate the creation of localised trade webs, spurring on the open-source education movement whilst raising awareness for plant diversity and node decentralisation, essentially growing the exo-skeleton for an augmented geo-localised learning tool available to all.

An example: Events like regular farmers' markets can be held at pods. Gardeners can trade their goods using PhiTrade's smart contact matching platform, settled using crypto currencies such as bitcoin. Trades might be enabled using a Bitcoin Lightning Network node running within the local pod, transactions can also be community validated to improve trade quality.

"The trouble ain't that there is too many fools, but that the lightning ain't distributed right."

Mark Twain

4.2 S33D Pods

Although each container will be unique, we ask that each library pod contain 3 varieties of the following: seeds, nodes, and books/whitepapers. Apart from these required attributes, each library pod is customisable in terms of its appearance, as well as its function.

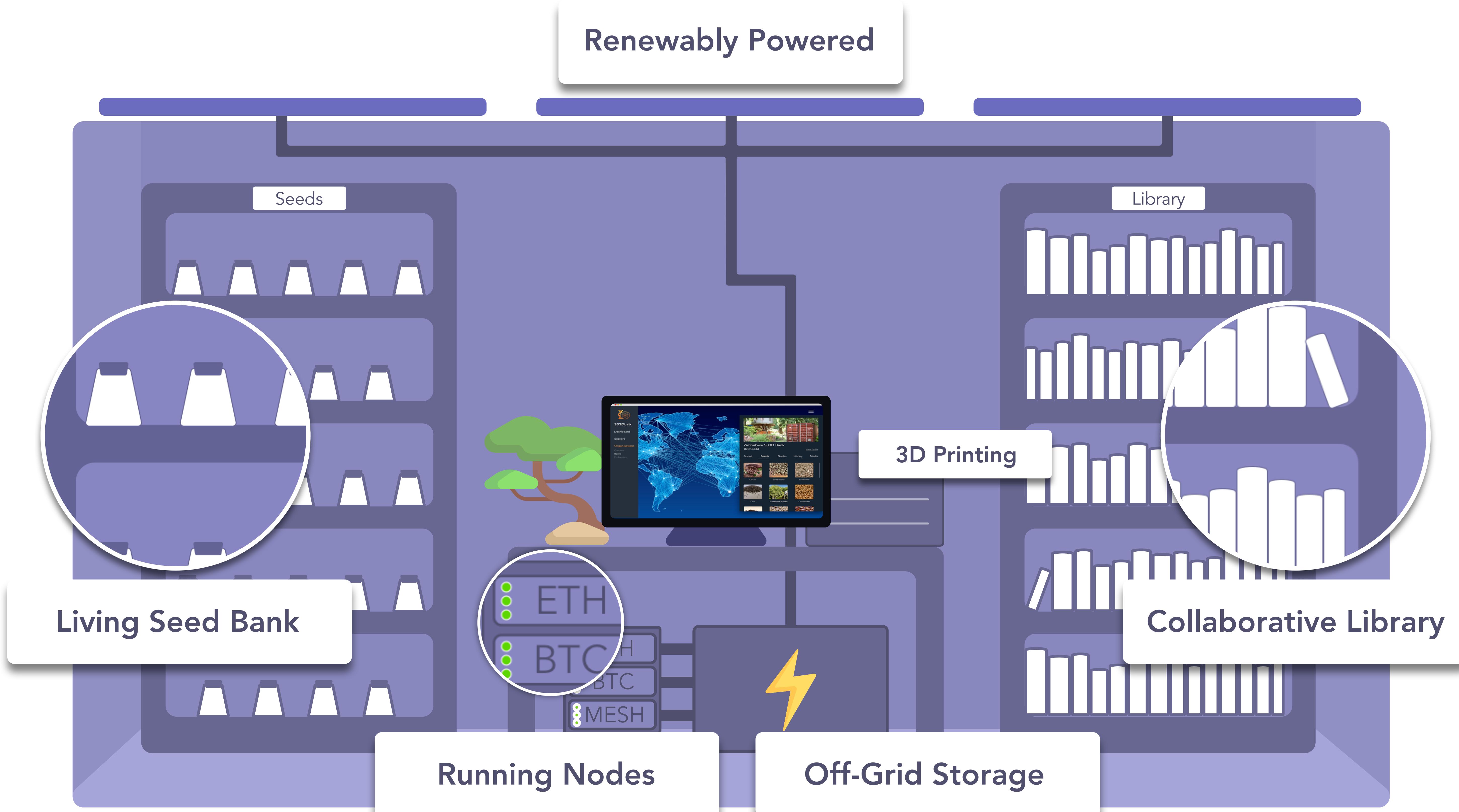


Figure 15

For example, one might contain hundreds of varieties of apple seed, whilst another might choose to curate a library focused on the history of cryptography. This flexibility allows for diversity across the network, whilst retaining a strong base layer for each pod to positively contribute towards the SDL's scaling.

Ideally, we'd love to see these library pods located in spaces such as public gardens, allotments, schools, hospitals and sustainable communities. They can therefore serve as focal spaces for local trade communities, as well as an educational hub.

Additionally, we'd like each library pod to be constantly evolving to be as environmentally friendly as possible. Energy can be harvested in a variety of ways, we encourage the adoption of green technologies (solar panels, wind turbines etc) to decrease the financial input needed for each community to run a S33D Pod.

4.3 IGR Model

In order for these S33D Pods to be built around the world, both community and investment are needed. For this, we propose **S33D Initial Garden Raises (IGRs)**.

For each pod to be built, there first needs to be an injection of capital and attention. Communities will be able to create localised DAOs (funds) in the name of each S33D Pod, and like an ICO on the Ethereum Network, investment in the project can be rewarded with a localised token to represent a stake in the Pod's DAO.

One third of the tokens will be distributed in the Initial Garden Raise. The other two thirds will slowly be released over time, rewarded locally to community members for their input on census indexes (Chapter 5.2), donations, or during airdropped markets to help localised trade grow.

We believe this IGR model will lower the barriers for communities to crowd source their own infrastructures and stimulate their own local economies, which will then act as fractal cells, self sufficient within a wider economy.

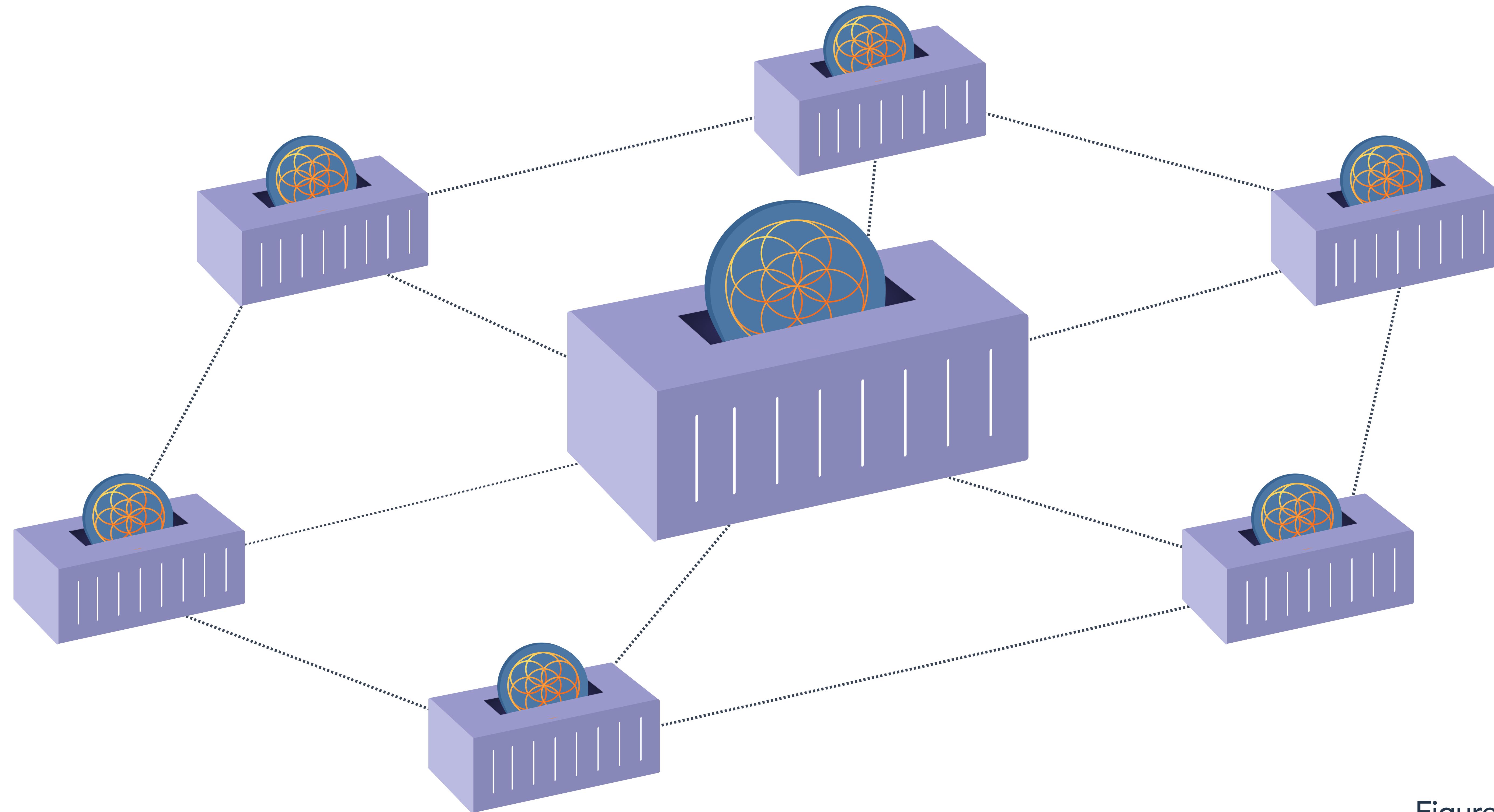


Figure 16

IGO

5.1 Key Creation

Upon staking a minimum of £9.99 worth of cryptocurrency into the S33D Index as an Initial Garden Offering (IGO), 3 Key will be yours to distribute.

Staying true to our philosophy of learning from nature, we ask you to represent the formation of the water molecule. In order to incentivise a global water meditation and grow the S33D community, we ask you to keep one key for yourself (H), gift one to a friend (H) and one to an organisation (O) : an education project, garden, library, seed bank, museum, eco-community etc.



Figure 17

Gardeners may use their unique private key to vote in each census block of the S33D Index (Chapter 3.1).

S33D (\$S3D) will be used as a utility token for IGRs, as well as a way to pay for and power smart contracts (PhiTrade).

Those who wish to invest more than \$33 into S33D's IGO will receive surplus S33D tokens in return, however, it should be noted that voting power is not correlated to token ownership*.

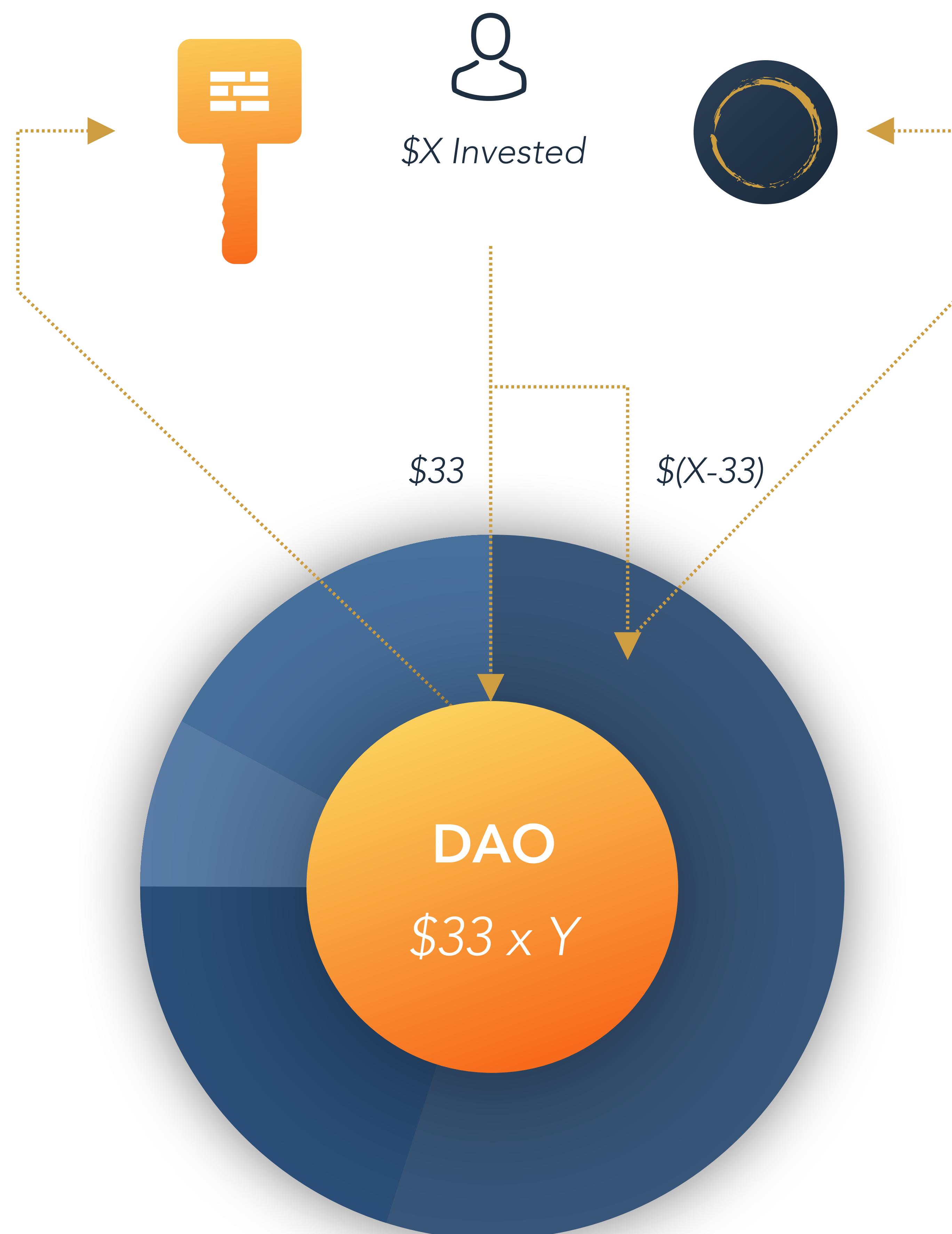


Figure 18

* We want everyone to have the same voting power in the S33D Index, and therefore the same chance of winning the lottery in each census block.

5.2 Home Pods & Proof of Dance (PoD)

As well as being hubs for trade, encrypted communication, and the flow & storage of knowledge, Pods are places to facilitate local census experiments.

Following the IGO, gardener's will be encouraged to elect a "Home Pod". This is done by following the same model as before, staking a £3 fee in order to generate a unique key*. The stake to generate each key is added to a Pod's DAO, and like the S33D Index, members use their keys to take part in their Home Pod's Index. However, in order to take part in a Pod's Index, you will have to cast your vote within a given radius of the Pod - a geo-local localised adaption of **Proof of Play (PoP)**, we call this **Proof of Dance (PoD)****.

"The machine does not isolate man from the great problems of nature but plunges him more deeply into them." **Antoine de Saint-Exupery**

This helps stimulate localised economies within the S33D Network gravitating around Pods, each backed by its own store. In similar fashion to the reward mechanisms active in the S33D Index, gardeners will be rewarded by a local lottery of their Home Pod's newly minted token ($\frac{1}{3}$ of which will first come into existence during the Pods IGR, and the other $\frac{2}{3}$ will then be slowly released over time). This token can then be used to fund local projects, as well as paying for the upkeep of each Pod.

* Earlier keys created during the IGR (Chapter 4.3) will also have chosen a Home Pod, but further payment is only required to add additional Home Pods to your S33D iD (Key).

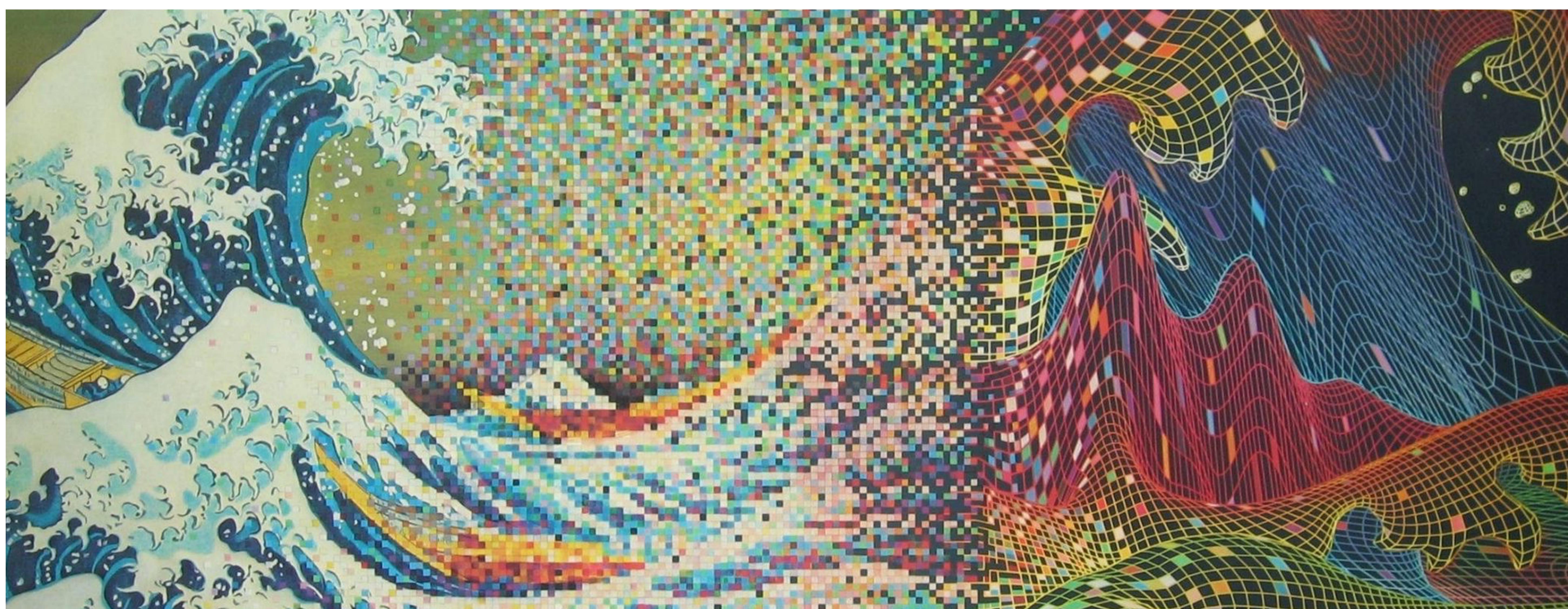
** The top 3 crypto-assets of each Pod's Index will be represented within the S33D Index under the Pod's name. Pods can then be represented as an one molecule within the S33D Index census blocks.

Harvest

6.1 Sowing a Symphony

It could have started in a million ways, ultimately connection is where the translation of telling any truth must begin. The feeling we are more connected to our environments than we've ever dared to dream is a fitting meme to begin.

The feeling fractals across a vast range of communities, sharing a vision not for a future, but for an evolving moment of peace right NOW. This is why we have chosen the ensō circle to be S33D's logo, "a circle that is hand-drawn in one or two uninhibited brushstrokes to express a moment when the mind is free to let the body create". The moment grows as we collectively and consciously vibrate in a greater harmony with our planet, fellow beings, and fundamentally, our own creative nature.



Maia Valenzuela - 'Hokusai pixel wave'

<https://creativecommons.org/licenses/by/2.0/legalcode>

6.2 Why Sow?

"The purpose of truly trancendant art is to show you something you are not yet, but can become" **Ken Wilbur**

S33D is designed to grow. Ultimately the experience is joining the experiment:

- Access the evolving encyclopaedic lattice of wisdom orbiting the plant kingdom
- Curate the information we have and are receiving from the natural world through communities of cryptographic networks focused around different plants and sustainable technologies
- Save & Grow. Help yourself, help your community. Improve access to local produce, food security, emergency aid, and open-source libraries

Evolving into a multidimensional loom of sorts, knitting an eternal tapestry of consensus grown truth, with the golden thread of heartfelt connection to grow the highest versions of ourselves, in all our 7 billion skins.

"The whole history of mankind could be written as a series of made or broken relationships with plants" **Terence McKenna**

S33D Foundation

7.1 Not-for-profit

We would like to set up the S33D Foundation, a growing a team of passionate people excited to nurture an ecosystem of dApp's & Pods as the S33D story transitions into exciting new chapters.

We hope to bring together a dedicated team of developers, designers, field operators, advisors and other partners. A portion of the capital raised during the Pre-SOW (and later the IGO) will go towards these operational costs as S33D grows.

7.2 Partners & Advisors

S33D is first and foremost an endeavour to spin a collaborative canvas, curated by a community valuing organic origins. We therefore realise the importance of both advisors and partners willing to converse with the S33D Foundation, uniting in a collective dream.

If you are interested in becoming an advisor, or if you have a project that you think could benefit from open-source collaboration, please get in touch.

"Don't walk behind me; I may not lead. Don't walk in front of me; I may not follow. Just walk beside me and be my friend" - **Albert Camus**

7.3 Funding

This last year has seen the rise of ICOs, an intriguing method for raising capital and kickstarting projects using smart contracts. However, as we have seen, proving a concept is not a prerequisite for launching an ICO. So before our IGO takes place, we would like to demonstrate that we are not only dedicated to growing our vision, but that it is also very much feasible.

As mentioned in Chapter 2.2, we are first building S33D Alpha (PoC). This will be kickstarted by the NowTee campaign (Pre-Sow), auctioning limited edition NowTee's to early donors, which will eventually be traced through an MVP dApp.

S33D Foundation Bitcoin Address

34zts5F1WDjVTEBTeDHzQm6qgBH2hJ7q9y



7.4 Contact



hi@s33d.life



@S33Deets



@s33dgram



<https://t.me/joinchat/Dm5gX1QirGwR9rXuPiAXfg>



S33D.life

Glossary

Cryptoprative - A global cooperative built on a lattice of cryptographic proofs

S33D Distributed Library (SDL) - A distributed network of S33D Pods around the world, each containing seeds, nodes, and data

S33D Hive Index - An economic consensus experiment. S33D Token released via Proof of Play (PoP)

Proof of Play (PoP) - Consensus algorithm to release S33D token in evolving census blocks of the S33D Index

Hive - A DAO focused specifically on one plant or cryptocurrency. Social education and trade spaces

Proof of Open Heart (PoOH) - Releasing Honey, a tradable and traceable reputation token awarded for popular content creation within Hives

smARTcanvas - Threads of provenance data that are embedded within a smart contract trade agreement

Proof of Trade (PoT) - Using smart contract trade agreements to release Plant Hearts, a digital token for each seed (trade miles specific to each plant)

Plant Heart - A native token given to each plant, released using PoT

S33Did - Your public key created when staking your IGO fee, used to vote in the S33D Index

IGO - Initial Garden Offering (1 time community fee for S33D iD + optional token sale)

IGR - Initial Garden Raise (Community led fundraisers for Pods)

S33D Pod - A portable shipping container, home to seeds, libraries, and nodes. Used as community spaces for P2P trade, seed saving, education, and more.

Home Pod - Your local S33D Pod, use your keys to commit consensus locally via Proof of Visit (PoV)

Proof of Dance (PoD) - Localised consensus algorithm to curate each Pod's Index (Geographical Proof of Play - adaption of *Proof of Visit* by Steve Douglas)

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Terence McKenna - Opening the Doors of Creativity & True Hallucinations

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Muhammad Yunus - Banker To the Poor: The Story of the Grameen Bank

Ram Dass - Be Here Now

Scott Olsen - The Golden Section, Natures Greatest Secret

Priya Hemenway - The Secret Code - The Mysterious Formula that Rules Art, Nature, and Science

John Michell & Allan Brown - How the World Is Made

Vandana Shiva - Who Really Feeds the World? & The Stolen Harvest

Doug Fine - Too High To Fail & Hemp Bound

Michael Pollan - The Botany of Desire

Bill Laws - Fifty Plants That Changed the Course of History

Ark Redwood - The Art of Mindful Gardening - Sowing the Seeds of Meditation

Thor Hanson - The Triumph of SEEDS

Manuel Lima - The Book of Trees - Visualising the Branches of Knowledge

Teri Dunn Chace & Robert Llewellyn - Seeing Seeds, A Journey Into the World of Seed Heads, Pods and Fruit

Thomas Pakenham - Meeting with Remarkable Trees

Ralph Waldo Emerson - Nature

Appendix

US Patent on Hemp

No. 6,630,507

United States Patent
Hampson , et al.

6,630,507
October 7, 2003

**Please see images for: (Certificate of Correction) **

Cannabinoids as antioxidants and neuroprotectants

Abstract

Cannabinoids have been found to have antioxidant properties, unrelated to NMDA receptor antagonism. This new found property makes cannabinoids useful in the treatment and prophylaxis of wide variety of oxidation associated diseases, such as ischemic, age-related, inflammatory and autoimmune diseases. The cannabinoids are found to have particular application as neuroprotectants, for example in limiting neurological damage following ischemic insults, such as stroke and trauma, or in the treatment of neurodegenerative diseases, such as Alzheimer's disease, Parkinson's disease and HIV dementia. Nonpsychoactive cannabinoids, such as cannabidoil, are particularly advantageous to use because they avoid toxicity that is encountered with psychoactive cannabinoids at high doses useful in the method of the present invention. A particular disclosed class of cannabinoids useful as neuroprotective antioxidants is formula (I) wherein the R group is independently selected from the group consisting of H, CH₂, and COCH₂. ##STR1##

Inventors: **Hampson; Aidan J.** (Irvine, CA), **Axelrod; Julius** (Rockville, MD), **Grimaldi; Maurizio** (Bethesda, MD)
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PCT No.: **PCT/US99/08769**
PCT Pub. No.: **WO99/53917**
PCT Pub. Date: **October 28, 1999**

