

Greenheart CBD: A Blockchain Enabled Lending Platform for CBD Production

White Paper

April 2021

Abstract

For the past three years, the Greenheart team has been building out a global model focusing on producing CBD (the legal derivative of hemp) and targeting increased CBD cultivation by farmers worldwide. To do this, we have modelled multiple cases of expansion using blockchain technology and market leading DeFi platforms. At this stage, we propose utilizing the Constellation network to provide financials loans to farmers to grow CBD internationally.

The primary concept is based on a DeFi platform to increase farmers income across the world by providing them with direct access to loan funding for CBD production. By leveraging advanced Artificial Intelligence Drone technology and Big Data analytics, we will be able to maximize returns from CBD cultivation, providing farmers with much higher income compared to existing agricultural crops.

The CBD industry is one of the fastest growing retail segments globally. Forbes estimates the global market for CBD will reach \$20 billion by 2024¹, a huge increase on sales of approximately \$500 million in 2018.

Despite the rapid growth of the CBD industry, mainstream banks have failed to provide adequate financing to farmers ². Greenheart CBD lending platform will initially focus and achieve POC for this aspect within our wider product strategy.

The platform is led by Greenheart CBD³, a fast-growing profitable European licensed organic CBD producer. The implementation of the platform will increase company profitability and revenue, while also enhancing operational efficiency and accelerating the company's global expansion.

Greenheart CBD's unique selling proposition (USP) is that currently, a multi-function DeFi lending platform which is beneficial to all members of the CBD farming community does not exist. The current lending platforms are too generalized. Greenheart can use its deep domain expertise and experience growing CBD from "seed to shelf" to provide this expertise and financial resources to the CBD community globally. The lending platform will be initially led by Greenheart CBD, before being expanded to community led crowd funding and potentially other ESG related sustainability initiatives.

1 <https://www.forbes.com/sites/irisdorbman/2019/05/20/cbd-market-could-reach-20-billion-by-2024-says-new-study/?sh=2b27f10649d0>

2 <https://www.nbcnews.com/business/business-news/cbd-products-are-flying-shelves-so-why-are-banks-so-n1068151>

3 <https://www.greenheartcbd.com>

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Mission

This document outlines the mechanics of Greenheart CBD, a sustainable decentralized lending platform, run on blockchain technology⁴.

Currently farmers in many countries have low incomes and exist on a subsistence basis, with little chance of improving their families living conditions.

The aim of the project is to provide financing to farmers around the world to grow CBD, substantially increasing their incomes and improving their quality of life for themselves and their families.

This expansion of CBD farming will be led by Greenheart CBD, increasing the company's revenues while successfully expanding to multiple countries worldwide.

This white paper will walk through the process of a typical farmer borrowing money from the Greenheart CBD platform, explaining how the production and drone technology process is incorporated, the key platform functionality and its interaction with the network. It also explains platform governance and the advantages provided to farmers, tokenholders and the wider CBD community. Finally, the white paper explains the role of Greenheart CBD in implementing their advanced technology and CBD production processes.

The Greenheart CBD platform will provide project and community led loans to farmers around the world that wish to switch to CBD cultivation and production. It will take the form of a DeFi lending exchange, applying advanced smart contracts on a number of blockchain networks, to enable borrowing and funding between users and community participants.

The platform allows finance to be provided to borrowers, specifically with the aim of providing funding to farmers, in any country worldwide that wishes to cultivate CBD, within the current and future parameters of the law.

The platform can also be expanded to further non-CBD pools in the future, allowing for longer term diversification into other Environmental, Sustainable & Governance (ESG) related areas and sustainability initiatives.

CBD Farming - Current Limitations

Farmers in poor and developed countries are keen to increase their incomes and offers a better quality of life to their families. This is of greater benefit to the developing world, where farming incomes are low. In poor countries, the work is physically arduous, technology is antiquated, and incomes can be unreliable. Farming often does not offer a decent standard of living.

For example, the average income of a Thai farmer is approx. \$1,852 USD per annum⁵. By switching to CBD cultivation a farmer's typical income can be increased substantially. Greenheart CBD, using its deep hemp production experience and artificial intelligence drone technology, has increased its CBD yields by over 500% (from 200kg of hemp flower per acre to over 1,000kg). Under this scenario, a typical Thai

⁴ Potentially using the Constellation protocol - <https://constellationnetwork.io/>

⁵ Less than 57,000 Thai Baht annually - <https://tdri.or.th/en/2017/06/agriculture-4-0-obstacles-break-2/>

farmer utilizing Greenheart technology, could drastically improving the farmers economic wellbeing and financial position of their family.

The CBD industry has grown enormously in recent years and this rate of growth is expected to accelerate in the coming years⁶. However the global market has been constrained by the availability of funding and capital to farmers who wish to switch from cash crops to CBD. While the legal framework in many leading economies has become much cleaner in recent years (e.g. Farm Bill in the US federally legalizing hemp⁷ & EU wide directives on CBD production⁸), bank and lending facilities to CBD farmers and hemp producers has yet to catch up with the new rules and funding availability remains poor.

The CBD platform will address this problem by providing decentralized pools of liquidity, managed, and implemented on blockchain technology, to enable farmers in both developed and developing countries to access competitive sources of funding.

A Farmers CBD Journey

A farmer wishing to grow CBD will be able to access funding from Greenheart CBD and receive seeds⁹, core production equipment, AI drone technology and on-going technical expertise. Greenheart Production (see Figure 2. Greenheart CBD Customer Journey) will commit to buying the farmers crop and also providing a profit-share mechanism to the farmer when the final CBD product is sold to consumer.

This service will be offered through Greenhearts DeFi CBD platform. The platform will manage all local regulatory and compliance issues, related to CBD production, seed cultivation and finance loan provision. The service can be delivered direct to farmers and/or through a local agricultural co-operative. In many poorer countries (and a number of developed ones) farmers often work directly with a local co-operative (called a “co-op”) to pool resources, assist with agricultural processes and sale to the market.

The Greenheart CBD project is led by Greenheart CBD, one of Europe's leading licensed CBD seed to shelf producers, with a successful history of CBD production using advanced technology - including Artificial Intelligence Drones, Big Data analytics and “Track and Trace” production technology. Greenheart will work closely with our farmers to provide a step-by-step customer journey from initial loan application to seeding, cultivation and production of CBD crop.

The Customer Journey Map illustrates each stage of the process. This includes

1. Accessing the Mobile App Lending Protocol.
2. Farmer Loan Application.
3. Planting the seed for the initial CBD crop.
4. Receiving Greenheart production & drone technology at their farm.
5. Processing and monitoring the crop through Zenadrone and the CBD platform.
6. Greenheart CBD buying the farmers crop on harvesting.
7. Self-repaying loan repayments are made to Greenheart.

⁶https://www.naturalproductsinsider.com/sites/naturalproductsinsider.com/files/CBD%20Food%20and%20Bev%20Workshop_2019.pdf

⁷<https://www.brookings.edu/blog/fixgov/2018/12/14/the-farm-bill-hemp-and-cbd-explainer/>

⁸<https://www.emcdda.europa.eu/system/files/publications/13471/TD0320749ENN01.pdf>

⁹ Dependent on local country laws on seed importation.

8. Profit sharing between Greenheart and the farmer on final sale of the CBD product to consumers.
9. Farmer and Greenheart collecting data at each stage of the growing cycle for commercialization and analysis.

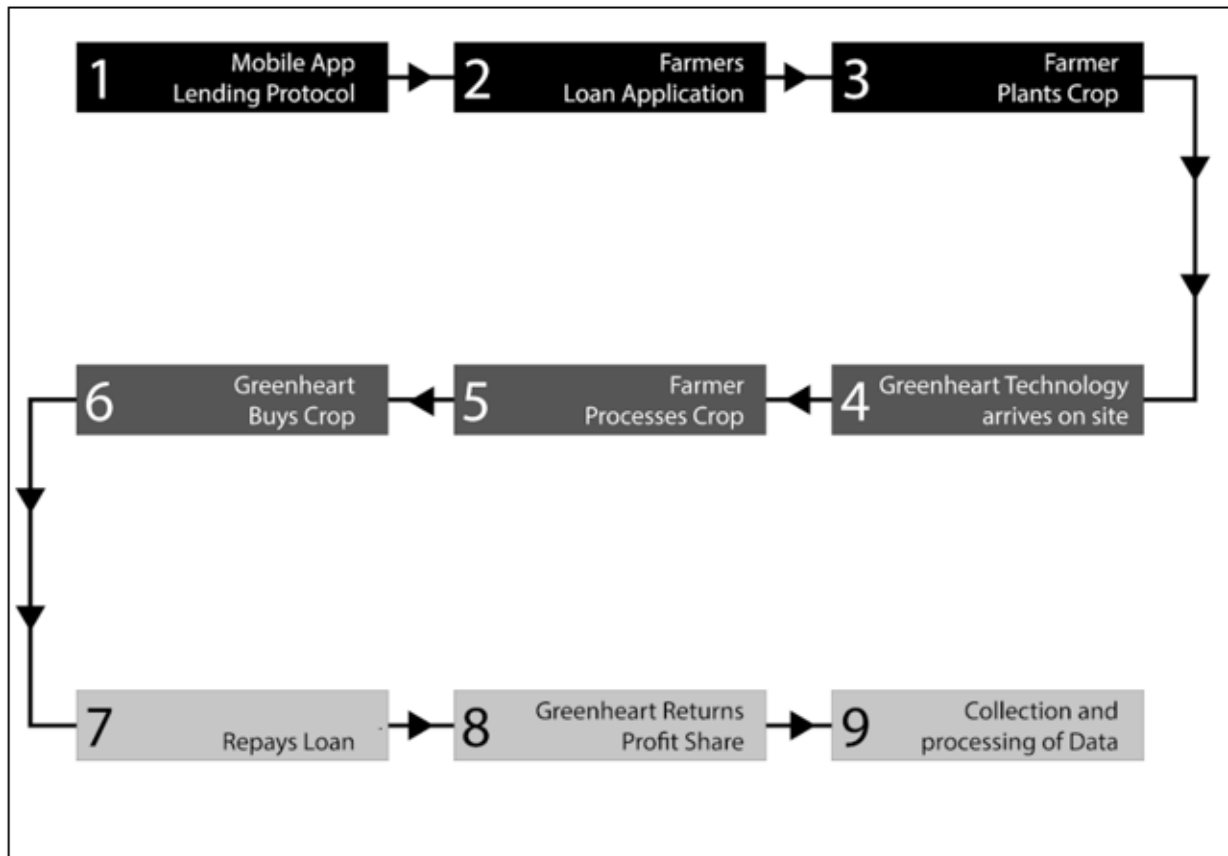


Figure 1. Greenheart CBD Farmer Journey

CBD Farmer Onboarding process

The farmer onboarding process is as follows: -

1. **Loan Application** – The farmer or co-op uses the Greenheart CBD DeFi platform to complete an application for funds to plant and produce CBD. The application is free. Information that must be provided for the application includes: -
 - a. Farmer/co-op details – Personal and business information, proof of identity and address.
 - b. Farm details – Details of the land and size of acreage to be planted.
 - c. Business plan – Farmer/co-op business strategy, cultivation plan, production timeline and expected returns.
 - d. Financial & bank details – Farmer/co-op banking and financial details for both due loan assessment and loan transfer.

2. **Due diligence & Loan Assessment Review** – The Greenheart CBD platform completes an automated review of all documentation provided by the farmer and assigns a key metrics score to the application (including farmer details, land potential, AML/KYC verification and potential profitability). This scoring system is used to assess all applications and generates a loan score on which to determine whether to proceed with the application.
3. **Financing Offer** - If the loan application is successful, the Greenheart platform generates a Loan Contract for the farmer/co-op to review. This document includes all key financial metrics – loan amount, repayment period, interest rate and penalties for late payment. Under the contract terms, Greenheart places a lien on the crops that will be produced by the farmer, as a form of collateral for the loan. The farmer will be given 7 days to review and sign the loan offer. Any queries or questions from the farmer in relation to the loan contract can be communicated to Greenheart directly through the CBD platform.
4. **Loan Finalised** – Three working days after the contract is approved and signed by the farmer, Greenheart will complete all final checks and reviews and the self-repaying loan will be launched. This enables the farmer to start receiving their equipment technology and support. The loan is now live, and the repayment and interest terms start to accrue from this loan provision date.
5. **Finance Repayments** – Repayments (capital and interest) are calculated using the smart contract functionality of the Greenheart platform. This blockchain platform manages all financial aspects of the loan, repayments, duration, and updates as payments are made. Repayments are received by Greenheart automatically on the 1st of each new month.

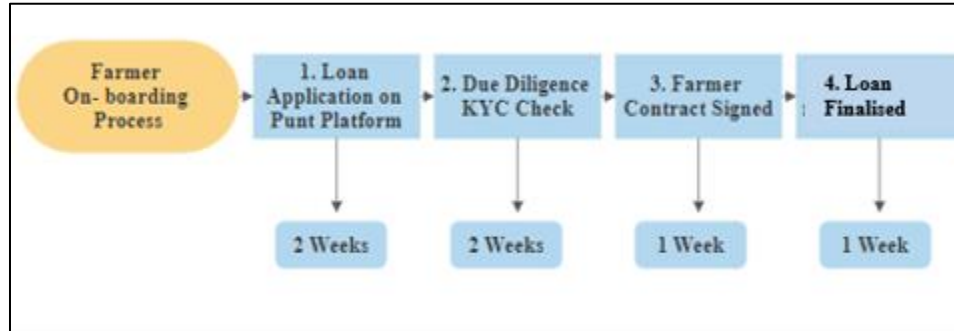


Figure 2. Farmer onboarding process

The above process is the same for agricultural co-ops applying for funding to grow CBD with farmers in their local area. Co-ops will buy the advanced production technology (e.g. drones), while standalone farmers will be offered the choice of leasing the drones for the CBD production cycle.

CBD Farmer - Financial Model

We believe that farmers moving to CBD can greatly increase their income and quality of life. The below financial model reflects the potential return and typical loan financing the platform will provide to farmers.

CBD Farmer - Financial Model

Typical loan to farmer: - \$500 - \$50,000 USD

Typical Duration 1 - 5 Years

Typical Interest Rate - 5% interest

A farmer's income in the developing world: -

Existing Cash Crop farming - \$1,500 per annum income

Return from an acre of CBD cultivation - \$2,500 per crop cycle ¹⁰.

A typical farmer's income from growing CBD

Value of crop per acre - \$2,500 USD

A typical acre of production would cultivate 200kg of dried flower @ 5% CBD.

Using AI and Drone technology can increase production levels by up to 500% ¹¹

Total Farmer Income per acre - \$2,500 per crop cycle

A planned profit share (estimated 20%+) of consumer sales will also be implemented for qualifying CBD producers.

Farmers moving to CBD production can potentially enjoy a substantial increase in their standard of living, a positive impact on their family's welfare, an industry wide reduction in poverty and a more sustainable form of long-term farming.

Furthermore, CBD production and increased income growth is consistent with the long-term objectives of many governments, promoting a shift to sustainable environmentally farming that increases agricultural incomes¹².

¹⁰ Assumption - Farmer growth financial model based on 80% of Greenheart CBD's typical production return.

¹¹ Assumption - Farmer growth financial model based on 80% of Greenheart CBD's typical production return.

¹² <https://www.dw.com/en/pakistan-industrial-hemp-cannabis-production/a-56106271>

Artificial Intelligence Drones

Greenheart's farmers utilize the world first advanced artificial intelligence drones – the Zenadrone¹³ - built specifically to cultivate, feminize, and harvest CBD crop. ZenaDrone multispectral sensors (ZMS) provide five spectral bands (blue, green, red, red edge, near-infrared) which gather both visible wavelengths and wavelengths outside the visible spectrum. This allows the ZMS to collect data and help farmers understand the health of their crops by analyzing the light reflecting of objects.

When other bands are combined with near-infrared, farmers can determine the vegetation's stress level.

- Green, red, and blue bands provide information about the health crop and quality soil.
- The blue and red bands show the levels of chlorophyll in the plants, helping determine their health.
- Red edge is between the red band and near infrared. This band lets farmers track plant health, plant counting, and water levels.
- Near-infrared provides information on cellular structure, soil properties, moisture, and erosion analysis.

Using thermal sensor, ZenaDrone measures the temperature of the crop and analyzes plant physiology, soil salinity, plant disease, and yield forecasts. It is important to understand temperature's effects on crop growth. Sudden temperature changes may affect the plant's growth rate and production levels.

ZenaDrone's thermal sensor also measures the soil temperature to provide data on plant root growth. Because temperatures vary throughout the day and night, ZenaDrone offers daily or hourly scanning to help forecast the impact of temperature changes on the crop. Farmers are able to see the history of their crop temperature. While temperature changes may not immediately cause thermal damage, the plant may show signs of being affected by mild to high level changes in the temperature, making it vulnerable to future freezing or heat-shock.

Moisture sensors work with ZenaDrone to measure the moisture levels in the soil. These sensors are long rods placed into the soil throughout the farm. The moisture sensors send signals ZenaDrone as it flies through the crops to report the current moisture level of the soil. These signals are displayed on the map, allowing the farmer to better understand which areas are underwatered or overwatered. The farmer is then able to adjust irrigation techniques to save on water bills.

Each drone will have a number of attachments including:

- A) Robotic Arm
- B) Sprayer
- C) Soil Tester

Technical Specifications

Multi spectral Sensors: • Blue, Green, Red, Red Edge, Near Infrared

Additional Features:

- Built-in GPS
- Inertial Navigation System

¹³ <https://www.zenadrone.com/>

- Altimeter
- Ultrasound
- Optical flow vertical camera
- 360o LIDAR
- Sunshine Sensor

Cameras

- Object Detection Camera & Wide-Angle Camera.
- Video: 1080p Full HD
- Internal video memory: 256 GB

Greenheart Digital

Greenheart is the first CBD producer to place “Big Data” analytics at the core of its business. The company deploys “Track and Trace” Developmental Technology & Data Analytics across the production cycle. This includes “Seed to Shelf” consumer tracking of CBD products, from initial planting to final production and consumption (through the use of QR Codes) allowing for full supply chain verification.

Greenheart Digital will deploy a modern data commercialization strategy, using the raw data gained from CBD planting, cultivation, production, and consumption, to gather an end-to-end holistic view and key insight to each stage of the CBD process.

This information will then be utilized to provide better service to consumers and monetized to provide a new source of revenue. Data will be commercialized and sold anonymously to interested qualifying third parties, to provide insights and analysis to changing consumer, production, and environmental trends. These third parties will research centers, universities, and scientific research bodies.

Greenheart Financial

Greenheart Financial will provide loans to farmers to grow CBD globally, including providing access to the required equipment and advanced technology to successfully grow CBD. This would include production, seeding machines, AI drone and the technology to capture data at each stage of the process (which can then be commercialized by Greenheart Digital).

The loans administered on the CBD platform will be used by farmers to finance the costs involved in switching from cash crops to growing CBD locally. Repayments back to Greenheart and community lenders will be fully automated and include capital, interest, and any other financing fees.

Greenheart Production will place a lien on the crop and the loan, fees, and interest to Greenheart Financial is automatically paid back when the crop is harvested, via a smart contract on the project blockchain. The project intends to acquire credit insurance to cover the loans provided to farmers and any bad debts that may arise. Greenheart Production will commit to buying the farmers CBD crop once it is cultivated and produced for sale to the consumer market. Furthermore, an annual profit split will be paid to farmers in the form of a CBD token bonus.

The return on CBD is far higher than for traditional forms of farming. For example, Greenheart CBD (the company behind the CBD project) successfully produced \$12 Million US Dollars' worth of CBD on 10 acres of land at its European headquarters.

Greenheart Financial will roll this model out in many countries globally. For example, the US Farm Act has legalized CBD production at a federal level and multiple states (including New Jersey and Oregon) have already issued local permitting regulations and are providing farmers with tax and production incentives to grow CBD in their state.

Furthermore, in the developing world this model would also work effectively with both individual farmers and agricultural co-operatives, moving poor farmers from low margin, cash crops to a sustainable, hi-tech, environmentally friendly alternative – which also provides a much larger financial return to the farmers.

This model of sustainable farming would also comply with the express agricultural objectives of many developing countries, switching farmers much more quickly to sustainable environmental alternatives.

Community Based CBD Lending

The Greenheart CBD project will also enable token holders in the community to lend funding direct to farmers in developing and advanced countries, who wish to switch from cash crops to cultivating CBD production.

Community lenders will be able to review potential projects they might wish to finance through the project website and mobile application and will be able to make loans directly to receive interest and capital repayable over a fixed period of time.

The financing transactions, loans, interest, and all payments will be recorded on our project blockchain using the CBD platform and the contracts fully administered using a Smart Contract.

Sustainable community lending - Longer term the project intends to examine extending financing to other related sectors, particularly in the area of sustainable and environmental farming. This may also include facilitating our community to provide financing to sustainable and environmental projects that meet our standard of good governance and ESG impact.

Core Platform Functionality

The CBD platform has a number of core functionalities which will be provided to lenders and borrowers and enable the project to become the leading CBD and sustainability financing platform.

The CBD platform will bring two core groups together – borrowers and lenders - in order to facilitate CBD and related lending. From a user's perspective the CBD will operate in a similar manner to existing

DeFi lending platforms currently trading in the market in recent years. The key difference is that using the CBD platform, tokenholders will access CBD related loan and financing information.

Core CBD platform functionality will include: -

1. **Borrower Loan Application Dashboard** – Farmers and potential CBD growers can apply for financing and review application progress.
2. **Lender Loan Offering Dashboard** – Token holders can review farmers and potential CBD producers who are seeking funding to start cultivation and decide if they wish to finance any borrower.
3. **Smart Contract** –The CBD smart contract will calculate the interest rate on all loans automatically, based on the key variables of the application and the supply and demand available from lenders and borrowers. Loans are expected to average 5% interest annually; a rate considerably lower than many farmers can avail for cash crops at commercial banks. The smart contract will also manage and record all financial aspects of the loans – interest calculations, outstanding balancing, remaining loan terms, interest rate etc.
4. **Loan Repayment Automation** – Once a loan is live, and the initial 6 months repayment free period is complete, loan repayments will be made to the lender automatically and the smart contract updated with the latest borrowing and financing information.
5. **Summary Oversight Dashboard** – which will summarize all key lending and financial information for both lenders and borrowers. Lenders will be able to review the interest rate, remaining payments and timeline for loans offered. Borrowers will be able to review outstanding loan repayments, timeline of past and future transactions and any potential loan offers available from lenders.
6. **Document Module** – The platform will contain a document module for the download/upload of farmer identity and proof of address verification. As well as allowing the upload of documentation, loan applicants will also be able to download, review and digitally sign all loan documents and contract agreements.
7. **KYC/AML Review** – The platform will contain an API to a “best in class” third party AML/KYC provider, which will analyze and review all loan applicants KYC data and provide a scoring result on the platform. The results can then be accepted or investigated in more detail. Loan applicants that fail the AML/KYC will be rejected.
8. **Loan Application Scoring** - The platform will contain an internal loan scoring calculator. This scoring will be used to determine whether a loan will be approved. It will combine AML/KYC checks, business plan assessment, economic viability, and credit reference checks to build a detailed application evaluation and recommend whether a loan application should be approved or rejected.
9. **Communication Module** – Farmers can keep in constant communication with the CBD platform via the Communication Module which will be built into the platform. This will include videos, email and instant messaging for on-going discussions, questions, and ad-hoc queries.
10. **Training Access** – The project will be able to conduct live and recorded training for farmers via the platform, as well as upload videos and training materials on a periodic basis. Farmers can request specific training via the Communication Module and engage in on-going cultivation training at each stage of the production process.

Platform Governance

The CBD platform for lending and financing will be governed centrally initially, before being transitioned to community and core stakeholder control. The CBD governance structure will provide holders of CBD tokens with the opportunity to participate and vote in proposed platform amendments, improvements, and strategic decisions for future project expansion.

To participate in CBD platform governance, tokenholders must stake their liquidity in the project governance vault, where voting rights will be applied in accordance with the size of their CBD holding.

The project expects to propose regular platform enhancements to the CBD community once the project is rolled out fully into the CBD industry.

Governance and regulatory compliance will be at the core of platform governance, as well as a core emphasis on both fraud prevention across the lending network and the use of best practice KYC/AML processes at each stage of the customer journey and lending process.

Platform Advantages

The platform has several key advantages for the project, token holders and the wider CBD community: -

1. By providing the necessary **funding to switch to CBD farming**, the platform removes the main barrier facing farmers globally that wish to grow CBD.
2. Implementation of the CBD platform will drastically **increase the growth of the CBD farming footprint globally** and Greenheart's role in driving that expansion.
3. The **loan is self-repaying**, so the finance will begin to automatically be paid back to Greenheart CBD following loan initialization – drastically reducing the potential for bad debts or non-payment.
4. By utilizing a protocol (potentially the Constellation network) the CBD platform can **avoid the very high transaction fees** that have become prevalent on mainstream token protocols (like Ethereum).
5. The platform will be available to lenders and borrowers through the project's web and mobile application – providing an easy, seamless and block chain enabled interface and **dynamic user experience**.
6. The CBD lending platform **aligns returns and incentives** for the team, lenders, and borrowers, including token holders who wish to support the CBD economy and the farmers that which is avail of funding.

Developmental Process

The CBD platform may be developed using the Constellation blockchain protocol. Constellation allows for instant, fee-less transactions and direct streaming data validation through the Hypergraph Transfer Protocol (HGTP). The protocol also facilitates the integration of any external data source or blockchain and facilitates concurrent consensus mechanisms (local sensitivity and network state), as well as a domain specific programming language (called Babel) for interacting with Hypergraph.

The following diagram illustrates how Greenheart Production, Greenheart Data and Greenheart Financial could be integrated with the Constellation protocol.

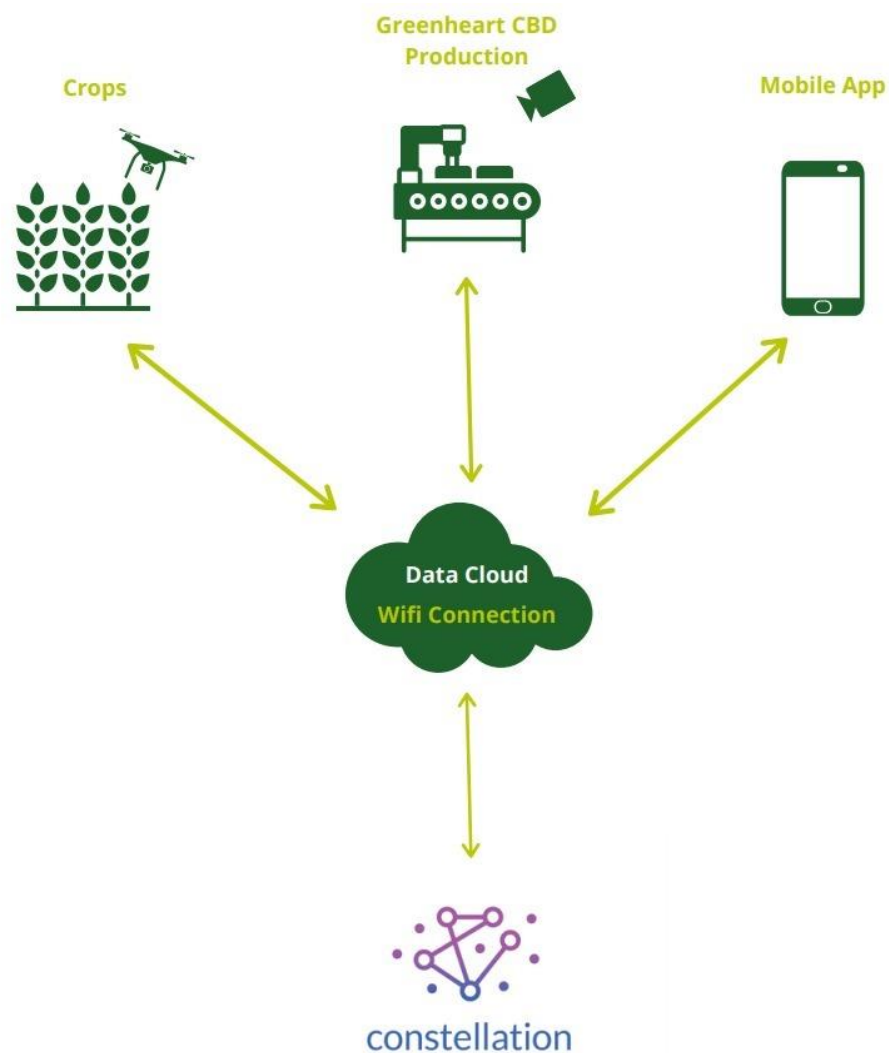


Figure 3. Greenheart CBD Data Collection & Constellation Network

Greenheart CBD

The CBD project is led by Greenheart CBD - one of Europe's leading licensed CBD seed to shelf producers and an established profitable business with a demonstrable track record of successful project delivery.

The company is the fastest licensed growing CBD supplier in the European Union, using advanced “CBDTech” technology to revolutionize the global market for CBD oil and related products worldwide.

Greenheart CBD sales are increasing at a year-on-year rate of 530% (125% quarter on quarter) and the company has a Customer Return Rate of 46% - twice the industry average. The company has begun expanding production into the US market and agreed relationships with multiple new industry partners to facilitate global expansion.

In its first year of sales, Greenheart CBD have been the recipient of multiple European and international awards, including in 2020: -

- All Star Business Award (Ireland)
- All Star Thought Leader (EU)
- The Cannavist - Product of the year (3rd place).
- The Cannavist - Advocate of the year (2nd place).

The company is also the first CBD producer to put cutting edge technology at the heart of their business - including “Big Data” analytics, artificial intelligence, and pioneering drone technology.

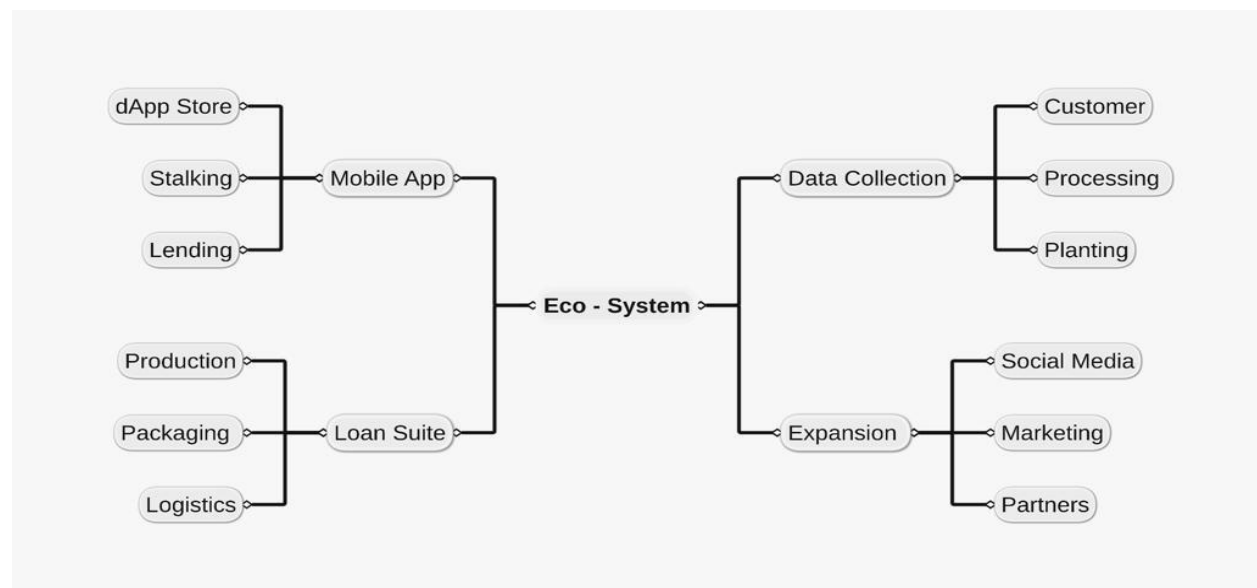


Figure 4. Greenheart CBD Ecosystem

a. The global leader in organic CBD

Greenheart CBD is an Irish headquartered company with a global vision to bring the finest CBD products from seed to shelf worldwide. The company helps farmers to produce the finest organic hemp crops and process through cold press extraction machinery in the most natural way possible.

Greenheart CBD has spent years researching extraction methods to create homogenized cold-press extraction methods and produce the most effective CBD products, for the end consumer with full traceability from seed to shelf. Greenheart CBD has a proven outstanding track record of consistent delivery of market leading CBD products.

The company was established by award winning entrepreneurs with deep domain expertise and experience in the CBD industry, as well as in the use of deep technology (e.g. Artificial Intelligence, Blockchain) and its successful deployment in new & expanding industries.

The business began to sell its CBD product to the retail market in January 2020 and has grown exponentially in the period since initial launch - acquiring over 2,500 new customers for its range of CBD oil products - within this short period.

The company is in the process of internationally launching multiple new CBD product lines in 2021. This includes three types of CBD protein powders, two types of CBD skin balms and creams and a range of CBD infused retail popcorn products.

The implementation of the CBD platform will further enable the global growth strategy of the company. Revenue received from both loan interest and the sale of CBD produced by farmers globally will add another significant source of revenue and accelerate the company's expansion.

The company has features in multiple leading CBD and general international publications and media outlets. The founders have won many awards for the quality of both the product, the existing business and previous successful technology ventures. The team and company have featured in Vogue magazine, RTE, Forbes, Nasdaq, Reuters and the Irish Independent (full links to recent media coverage is available in the appendix and on the Greenheart CBD). The company has commissioned independent third-party laboratory tests to confirm the quality and content of its CBD product. The independent lab reports are available on the Greenheart CBD website.

The team enjoys a large professional network with the CBD ecosystem and the company has built up a significant social media presence in a short space of time. The company has received hundreds of 5-star independent reviews of Greenheart CBD products on our web site.

Unlike many token and crypto projects, the company is both revenue producing and profitable is targeting future growth globally from both its growing retail base globally and also the important network of partnership deals it has agreed with other leading players in the CBD ecosystem.

b. What makes Greenheart CBD unique?

Greenheart CBD uses a number of unique processes and technologies to ensure the high quality of its product range. These include: -

1. **From Seed to Shelf** - A fully traceable company involved in every step of the manufacturing and supply chain process.
2. **The Finest Organic Hemp Crops** - Hemp enhances soil health by shading out weeds - reducing the need for synthetic herbicides - and adding diversity to crop rotations, improving soil health.
3. **Homogenized Cold-press Extraction Methods** - Cold pressed oils retain all their flavor, aroma, and nutritional value, making oils of the highest quality possible. This process does not need an external sustenance as with other methods.

Greenheart CBD's cold press homogenization process is an ancient extraction method using raw natural ingredients and high pressure to create a super effective full spectrum CBD oil. How this works is by blending the hemp with a carrier seed and putting the mixture through extreme pressure (10,000psi); this process pulls the cannabinoids into the fats of the oil and when leaving the cold press through a narrow nozzle this creates a cavitation effect on the oil. Meaning that as on departure this liaises the cells in the oil breaking it down for the body giving a better absorption rate, while containing all the cannabinoids, fats, terpenes and lipins in our oil creating an entourage effect.

4. **AI Drone technology** - Deploying leading artificial intelligence for CBD cultivation through its exclusive EU licensing partnership with ZenaTech. Through the ZenaTech project, Greenheart is working on the tracking of plant health, identification of male and female plants, soil testing, mechanical removal of male and unhealthy plants from outdoor farming scenarios, 2 forms of spraying for adding fertilizers and seed planting apparatus.

The benefits that this technology will bring to the farmers are to reduce costs, increase productivity, reduce health and safety hazards, increase security and overall profitability. Zenatech provides a full data chain from the time the seed is planted to the production of the final product allowing governance, compliance, and traceability at every stage of the process.

5. **"CBDTECH"** - Greenheart is the **first CBD producer globally** to deploy a full suite of advanced deep technology to improve and enhance every stage of the growth, development, and production process. This includes Big Data analytics to enhance cultivation, Drones equipped with Machine Learning, wallet application & sustainable products marketplace with pioneering AI customer service bots for clients of our CBD business.
6. **dApps Marketplace** - Greenheart has built and launched the first dApp marketplace for CBD products. Developed using industry leading decentralized platform "Origin", the dApp marketplace can be used by token holders to purchase Greenheart CBD products, using both Ethereum or the Greenheart CBD token.

Greenheart CBD - Token Economics

- The company has minted 150,000,000 Greenheart CBD tokens.
- The token ticker will be - CBD
- 1 token will represent 10 US cents (\$0.10).
- The project is planning to provide tokenholders with a Staking option (approx. 20-25% APY).
- The token issuer is a company based in the British Virgin Islands (BVI). It is a majority owned subsidiary of Greenheart CBD, the Irish parent company.
- The project will sell. 45% of CBD tokens in the private and public sale.

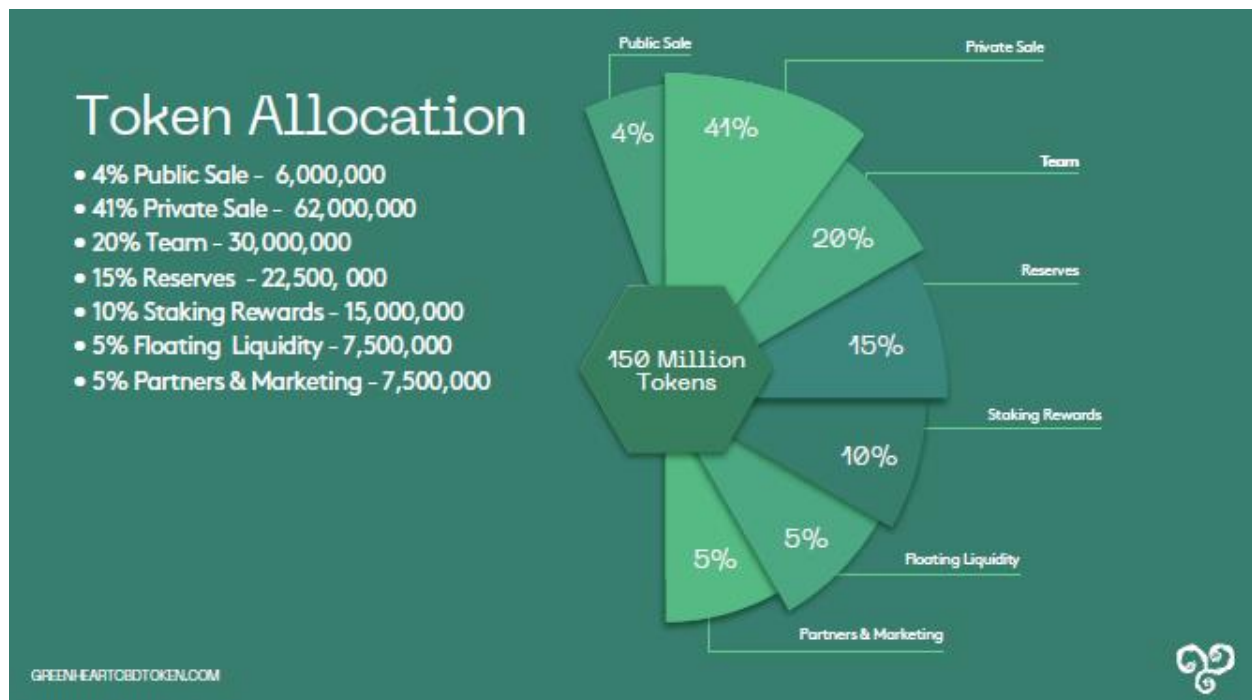


Figure 5. Greenheart CBD – Token Allocation

- The tokens will be vested for investors on the following schedule: -
 - Private Sale - Tokens will be vested 12.5% on TGE, 12.5% end of Month 1 and 25% end of month 2, 3 and 4.
 - Public sale - Tokens will be vested 25% on TGE and 12.5% weekly over a 6-week period.
- Tokens allocated to advisors, team members and ecosystem partners will be vested over a 12-month period.
- The use of funds raised for the project is as follows: -

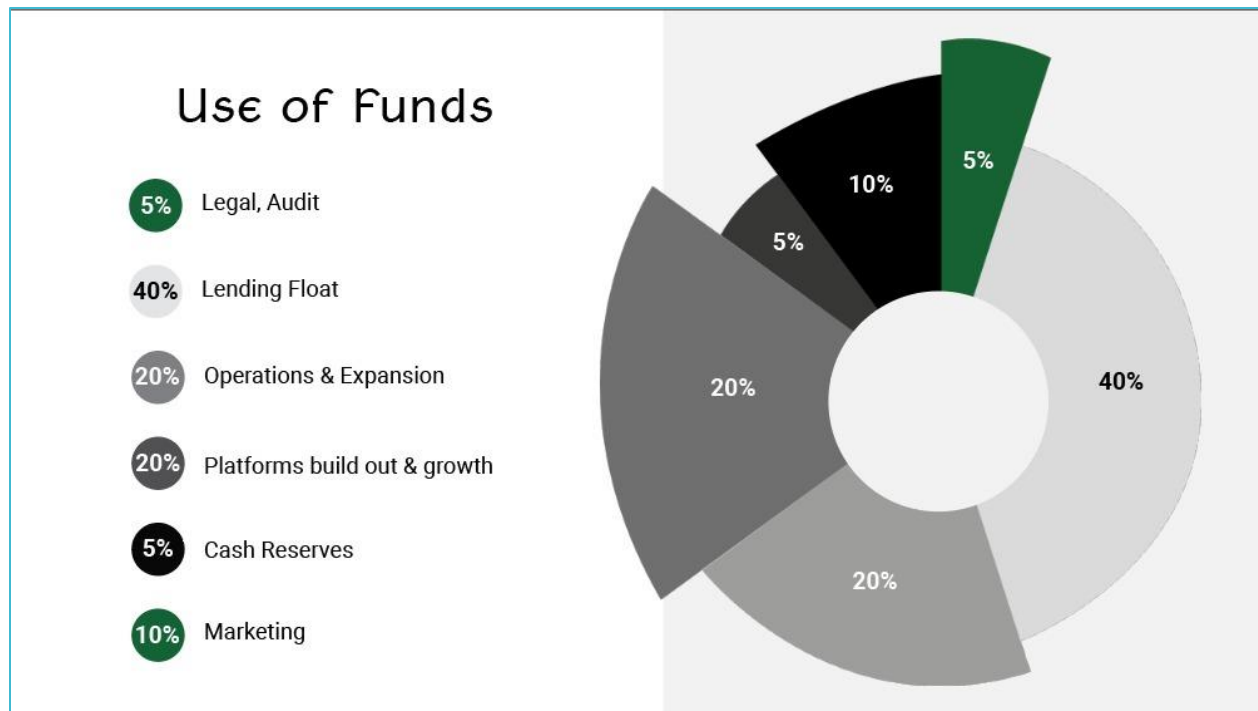


Figure 6. Greenheart CBD Use of Funds

Greenheart CBD Partnerships

The company has agreed a number of extremely exciting new partnerships across the CBD industry. Further partnership discussions are well advanced and will be formally announced in quarter 2 and 3 of 2021.

New partnerships finalized for 2021 include: -

- **Zenatech** - ZenaTech is on schedule to launch presale of the 'ZenaDrone 1000' in Q3 of 2021 with delivery to commence in 'Q1 of 2022'. The ZenaDrone 1000 will come complete with a wireless charging with internet connection. All drones come with a 10-year extended warranty. Deep operational and distribution partnership with the manufacture of Zenatech – the world's leading agricultural drone AI – including a 5-year exclusive European distribution agreement.
- **World CBD Awards** - The company has partnered and been nominated for the World CBD Awards taking place in April 2021.
- **Uniphar** – One of the world's largest pharmaceutical and retail distributors (revenues \$1.8 Billion) with distribution into 200 countries, supplying the Greenheart range of CBD products in pharmacies across Europe - initially focusing on the UK and Ireland – before expanding to North America and Asia Pacific. This partnership has the potential to be transformative for Greenheart CBD.
- **United Hemp Alliance** – Retail distribution agreement for Greenheart CBD product range throughout a wide range of health stores in the US, UK and Australia.

Forthcoming partnerships currently being finalized include: -

- **ChemChain - South Africa** - Greenheart is finalizing a CBD product distribution partnership with the ChemChain - the second largest pharmacy chain in the South African market. The partnership is due to launch in May 2021.
- **Hill International – USA** - Construction and project management partnership with leading US conglomerate to build multiple US Greenheart CBD production facilities throughout North America and the United States. The first facility to be built will be in New Jersey later in 2021.
- **Simply Natural – Panama** - The company is currently in advanced talks to commence production (Post Covid) at Simply Natural's new cultivation facility in Central America. This also marks the companies first steps towards potential expansion in medical cannabis market.
- **CDI Experts – Australia & Sri Lanka** – Cultivation, production and distribution in Australia for the local and Asia Pacific market – including potentially India.
- **Izmir Partnerships – Turkey** - Advanced negotiations under way with leading Turkish agricultural producer to build and produce Greenheart CBD for the Middle East & MENA market.

- **SmartFarms – Wales (UK)** – New cultivation center in the UK for production and distribution of CBD for the British market.
- **Croatia CBD Ltd – Balkans** - Cultivation and production of CBD in Croatia using Greenheart's production partnership model, as an initial expansion base for the Eastern European market.

The following market leading CBD companies have also **agreed marketing and business development partnerships** with Greenheart CBD and will allow token holders to redeem their Greenheart CBD token against their product range of goods and services.

Marketing and business development

- World CBD Awards
- The Extract
- Health Europa
- The Cannavist
- Irish Popcorn Company
- Item Banc
- Smart Farms UK
- Lumipay

Partners that enable token holders redeem their CBD tokens

- Global Hemp Alliance
- Greenheart CBD
- The Cannavist
- World CBD Awards
- Keadeen Mountain Farms
- Lumipay
- Natural Stacks health food store

Disclaimer

Certain information set forth in this presentation contains “forward-looking information. Forward-looking statements are provided to allow potential contributors the opportunity to understand management’s beliefs and opinions in respect of the future so that they may use such beliefs and opinions as one factor in evaluating an investment.

These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual performance and financial results in future periods to differ materially from any projections of future performance or result expressed or implied by such forward-looking statements.

Although forward-looking statements contained in this presentation are based upon what management of the project believes are reasonable assumptions, there can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. The reader is cautioned not to place undue reliance on forward-looking statements.