



VERIDIUM

THE NATURAL CAPITAL MARKETPLACE

Unlocking the World's Environmental Asset Markets

# WHITEPAPER



# Abstract

Veridium is creating a tokenized marketplace for natural capital (environmental) assets, beginning with carbon credit assets. By tokenizing carbon credits into fungible assets that have liquidity on an enterprise grade platform, Veridium will bridge multiple liquidity pools: corporate traders & end-users, traditional commodities trading markets and market makers, as well as the cryptocurrency community.

## Natural Capital Assets

Natural Capital is an emerging asset class that constitutes a broad range of environmental assets, usually in the form of financial instruments called “environmental mitigation credits”. The most mature sector of this environmental asset class is the carbon emissions credit market. Other sectors include water assets, in the form of water rights and water credits, as well as biodiversity credits and conservation landbank easements. Currently, the estimated value of the environmental credits markets worldwide exceeds \$200 billion USD. This figure includes global carbon markets, which exceeds \$80 billion<sup>1</sup>, the market for conservation easements (environmental mitigation credits) in the US alone exceeding \$100 billion<sup>2</sup> and global water markets making up the balance<sup>3</sup>. A study by more than 50 scientists from around the world estimated the intrinsic value of all the world's natural capital assets to be worth four times the global GDP, or well in excess of \$100 trillion USD<sup>4</sup>.

Veridium is creating a platform for tokenizing, purchasing and retiring this undervalued and illiquid asset class, thereby unlocking its full value potential. The first assets to be tokenized are carbon credits, due to the maturity of the carbon markets, coupled with opportunities to unlock a segment of the carbon markets that remains illiquid.

Veridium has created its first asset-backed token: **CARBON**

The **CARBON** token is an **asset-backed stable token** with underlying carbon assets that have low price volatility, can be independently verified on international registries and yields positive social and environmental impact. One CARBON token represents one carbon conservation credit from a diversified basket of internationally verified carbon conservation credits.

1. <https://www.reuters.com/article/us-emissions-prices/global-schemes-to-price-co2-emissions-worth-82-billion-world-bank-idUSKCN1IN0Z9>
2. [https://www.forest-trends.org/ecosystem\\_marketplace/opinion-nine-steps-towards-doubling-the-value-of-us-mitigation-markets/](https://www.forest-trends.org/ecosystem_marketplace/opinion-nine-steps-towards-doubling-the-value-of-us-mitigation-markets/)
3. <http://www.kysq.org/docs/Grafton%20et%20al%202010.pdf>
4. <https://www.nature.com/articles/387253a0>

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The environmental assets backing the CARBON stable token have intrinsic value, derived from an emerging asset class of commodities essential for life such as air, water and forests. These assets all have a finite supply and represent the only asset class with existential value.

The environmental assets behind the CARBON token are held in trust by the Canadian non-profit Veridium Foundation, overseen by an independent board. The assets can also be independently verified by anyone in real-time by viewing the Veridium Foundation's registry account on internationally recognized registries such as the [IHS Markit Registry](#) and the [APX Registry](#).

These unique attributes make CARBON a stable store of value for traders wishing to safeguard value and also the most versatile tool available to corporations wishing to hedge their future carbon liabilities.

Through the use of CARBON as a stable token and as a corporate hedge, the Veridium community has the power to be the most effective force in the battle to mitigate climate change, fund forest and biodiversity conservation and create positive social impact through its CARBON holdings. Simply by holding CARBON, the token is generating positive social and environmental impact dividends for the planet.

All Veridium tokens are being built on the Stellar blockchain for consumer applications and integrated with Hyperledger Fabric, a blockchain framework implementation hosted by The Linux Foundation. for enterprise level consumption.

Small to medium size enterprises may also conduct EcoSmart-Transactions™ through a portal on the Veridium Marketplace.

Consumer may use the tokens through the VERDEPAY app, which integrates with the user's bank accounts and online and mobile payment apps to automatically offset the carbon impact of their purchases.

## Disclaimers

The attached whitepaper is meant to describe the currently anticipated plans of Veridium and its affiliates (together, "Veridium") for developing a new blockchain token mechanism ("Token") that will be used on the network sponsored by Veridium ("Network"). Nothing in this document should be treated or read as a guarantee or promise of how Veridium's business, the Network, or the Tokens will develop or of the utility or value of the Network or the Tokens. This whitepaper outlines Veridium's current plans, which could change at its discretion, and the success of which will depend on many factors outside Veridium's control, including market-based factors and factors within the ecological and cryptocurrency industries, among others. Any statements about future events are based solely on Veridium's analysis of the issues described in this document. That analysis may prove to be incorrect.

This document does not constitute an offer or sale of the Tokens or any other mechanism for purchasing the Tokens (such as, without limitation, a fund holding the Tokens or a simple agreement for future tokens related to the Tokens). Any offer or sale of the Tokens or any related instrument will occur only based on definitive offering documents for the Tokens or the applicable instrument.

Purchasing the Tokens or any related instrument is subject to many potential risks. Some of these risks will be described in the offering documents. Purchasers of Tokens and related instruments could lose all or some of the value of the funds used for their purchases.

Please read the Legal section at the end of this whitepaper for additional information.

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# Executive Summary

## **Veridium is an environmental fintech company focused on unlocking a trillion-dollar asset class – Natural Capital**

Veridium is working to provide a solution that goes well beyond climate change and sustainability to transform the way we price and consume what is potentially the world's largest asset class - Natural Capital. Led by the founders of one of the leading global carbon credit producers, Veridium is introducing a tokenized marketplace for environmental assets, including carbon credits, together with an integrated technology solution for corporate tracking of their environmental impacts and mitigation.

Veridium will greatly facilitate the accounting of carbon liabilities and offsets, as well as the purchase, trade, and retirement of carbon credits. Carbon credits are tradable certificates that negate the impact from emitting one tonne of carbon emissions by financing a project that absorbs or avoids the release of one tonne of carbon emissions elsewhere. This credit system, at scale, could offset the environmental impact generated by the products and services enjoyed by modern society, while financing environmental & social impact projects, such as rainforest conservation.

## **A New Global Economic Model**

Our current extractive economic model has existed since the beginning of humankind. We extract from nature's bounty to produce the products we consume, and nature replaces what we have extracted. This model has underpinned all historical economic models including capitalism, socialism and communism. It was sustainable until sometime in the 1960s when our global population reached 3.5 billion and our collective consumption rates began outpacing nature's ability to replace what we had consumed. In this extractive economic model, we do not include the cost of environmental impacts and replacements in the price of the goods and services we provide. Those costs are being passed on to future generations, creating a veritable environmental debit bomb.

We are on a collision course, where a new model will be forced upon us, or humanity will perish. The concept behind that new economic model is simple: we must embed environmental replacement costs into the products we consume. It is a moral and existential imperative and the future of humanity depends on it. Accomplishing that in practice, however, is complicated. There is no pricing mechanism for natural capital assets and we lack efficient tools for measuring the environmental impacts and embedding compensation costs—until now.

The issue of climate change and the rapid growth of carbon markets is the first attempt to price environmental assets and to embed the cost of environmental impact into the price of the goods and services we consume.

Blockchain technology has the ability to utterly transform the world's unsustainable economic model and Veridium is leveraging that technology to do just that.

Veridium is leveraging the scalability of the capital markets, large corporations and mass consumer markets as the primary engine for the transition to a regenerative economy and unlock the full value potential of should be the world's largest asset class – Natural Capital.

## Opportunity

Currently, there are two carbon markets. The "Compliance" market is mandated by governments, where large emitters such as utility plants must offset their emissions through a government allowance scheme, supplemented with carbon offset credits. These allowance certificates and carbon credits trade on marketplaces in Europe and on regional marketplaces such as the California Cap and Trade marketplace. The primary market is approximately \$2 billion USD with secondary trading volume reaching an additional \$83 billion. The so-called "voluntary" credit market exists outside government mandates and are driven by institutional investors that are forcing their portfolio companies to measure and mitigate their carbon liabilities exposure. These credits trade OTC and are therefore largely illiquid and as such, secondary trading accounts for only half the total trading.

Veridium is creating a platform for tokenizing, purchasing and retiring carbon credits by building a natural capital marketplace. This marketplace will greatly facilitate of carbon offsetting and the vibrant secondary market will enable price discovery. Carbon credit assets are the first to be tokenized with additional natural capital assets anticipated in the future. By registering carbon credits as tokens on a blockchain, Veridium has overcome the biggest problems impeding carbon credit adoption. Previously opaque over-the-counter credit purchases are transformed into a new, fully liquid and fungible token asset available for trade and consumption on the Veridium crypto-asset marketplace.

Additionally, Veridium is addressing other inherent inefficiencies in the markets for environmental assets.



## Problem

### Carbon Accounting

Measuring the carbon footprint of even a single product (among thousands) involves quantifying the emissions impact of each and every input in a manufacturing process across complex global supply chains. This is a daunting and costly undertaking, and this level of granularity has no assurance of accuracy.

- Corporate carbon accounting and offsetting is currently a manual process. These processes are time-consuming and costly and the level of granularity seldom produces certainty.
- Measuring even broader environmental liabilities, such as deforestation, biodiversity loss, water consumption and social impact, adds almost insurmountable complexities and related costs.

### Carbon Purchasing

Once impacts have been quantified, companies are confronted with a myriad of carbon standards, various classes of carbon credits, grades within those classes, and a wide range of vintages and expiration dates.

- Markets and pricing are opaque. A small handful of carbon consultants and brokers control 75% of the carbon markets worldwide.
- Illiquidity limits price discovery and obfuscates the true cost that emissions impacts have on society. A 2015 U.S. government study valued a ton of carbon dioxide to be worth \$37 in damages, a Stanford University study valued it at \$220, while current market prices hover around \$15.<sup>1</sup>

### Carbon Mitigation and Hedging

Mitigating current emissions liabilities is challenging enough for organizations. Hedging for future liabilities is even more challenging.

- “Compliance” (government mandated) credits traded on marketplaces are liquid and can be placed on a balance sheet as an asset. However, these credits have limited environmental benefit beyond carbon emissions, and have short expiration dates, rendering them ineffective as long-term hedges.
- “Voluntary” (institutional investor mandated) credits, such as REDD+ credits, have long expiration dates and much broader environmental benefits, but are traded over-the-counter, making them difficult to classify as assets on a balance sheet.

Corporations undertaking the challenge of quantifying their environmental liabilities find themselves navigating an obscure world that is outside their core competency and delivers uncertain results. The process of carbon accounting is complex, costly, and carbon credit markets are equally complex and opaque. Even well-intentioned companies currently face substantial

barriers to carbon accounting and offsetting, which limits participation in the effort to mitigate global emissions.

## Solution

### Tokenomics

Veridium offers a straightforward solution to build liquidity in carbon credit markets by creating an asset backed stable token (CARBON) that can be independently audited through internationally recognized third-party registries and by fully automating and integrating carbon accounting and offsetting into corporate global supply chains. This section discusses how blockchain and tokenization will benefit the natural capital asset market, as well as the distinct roles each token plays in Veridium's ecosystem.

### Non-Tokenized Systems

In today's capital markets, most financial assets, especially those traded in electronic form, are held (or "custodied") by centralized parties who are entrusted to maintain accurate records of asset ownership. At the core of asset custody is the management of other people's assets in databases. The global financial system's custody and transactional infrastructure, which has been glued together over the course of decades through acquisitions and siloed software development, is showing signs of weakness and is urgently in need of technology upgrades.

The limitations of centralized custody systems are apparent in a global economy. Assets maintained in a centralized digital form are effectively limited to trading in a single jurisdiction, even though they may need to be used in other jurisdictions in unrelated technology architectures. The limitations of centralized systems are particularly relevant in the case of natural capital markets. Centralized custody and trading solutions provide no practical way of instantly transferring carbon credits between international trading platforms to utilize carbon credits within a company's supply chain.

### Tokenization

Blockchain technology, which stores data across a decentralized network, provides a cryptographically secure way of managing digital assets.

Many organizations are exploring the application of blockchain technology to existing asset classes. *Asset-backed tokens*, specifically cryptocurrency assets backed by physical assets, provide the benefits of a cryptocurrency (i.e. instant transferability, automation and cryptographic security) to another asset class. The process of integrating an asset onto a blockchain is called tokenization.

Veridium's platform enables the tokenization of natural capital assets, such as carbon, biodiversity, water, and social impact offsets. Through this process, these global products can move seamlessly between disparate supply chain management systems as well as throughout the Veridium ecosystem.

## Use of Blockchain Technology

Blockchain provides an opportunity to equitably manage the world's shared natural capital. Decentralization provides new structures for collaboration and technological solutions that allow people to take accountability for assets that are shared among large groups of people. In the case of our earth's ecosystem, a publicly-maintained decentralized network permits us to transparently share the consumption of the "environmental trust fund" of which we are all equal beneficiaries.

In particular, Veridium is leveraging the following aspects of blockchain technology:

- **Immutable records of environmental credit ownership and utilization.** Using distributed ledger technology and transparent records for supply chain management, it is now possible to provide a dramatic improvement in the transparency and immutability of carbon liabilities, and the application of carbon offsets at precise points along the value chain.
- **Global fungibility and transferability of tokenized assets.** Tokenization allows for the rapid global transfer of digitized representations of fungible environmental assets, with far less friction.
- **Natural integration into other blockchain platforms.** Other platforms are emerging for verification of ecological impact, supply chain tracking and more. Integration of these systems is converging towards the ability of any individual or corporation to measure and offset their carbon liabilities in automated systems.
- **Ability to integrate CARBON tokens into supply chain management systems.** As supply chain management moves to blockchain based technologies, such as Hyperledger Fabric framework, the potential for integrating blockchain-based tokenized assets into the supply chain increases dramatically.

The tokenization of assets into structured cryptocurrencies is an enabling technology for Veridium's entire ecosystem. Natural capital assets, such as carbon credits, are one of the major areas of disruption possible in the blockchain industry, particularly by representing natural capital assets as tokens. Veridium is not only leading this effort with the CARBON token, but also eliminating the barriers to entry for other natural assets through our tokenization process for natural capital assets and carbon credit projects.

## Veridium Token

Veridium's economic model is enabled by tokens. Two major challenges commonly cited by offset purchasers are the asset class' non-fungibility and difficulty of use. We believe Veridium token model addresses these challenges.

Veridium will launch with its first asset-backed token: **CARBON**

**CARBON:** an asset-backed stable coin that generates positive environmental impact

CARBON is an asset-backed stable-coin token representing one metric ton of carbon offsets (i.e. one token equals one carbon credit). The CARBON token represents one carbon credit in Veridium Foundation's carbon conservation bank. What differentiates CARBON from other types of carbon credits is a regenerating basket of new underlying credits from various issuers. This structure ensures that a fresh set of carbon credits continuously back the CARBON token. Its mixed composition ensures greater future fungibility, essential for broader utilization, especially for hedging against future carbon liabilities. These carbon credit assets are publicly viewable in real-time on the [IHS Markit Registry](#) and the [APX Registry](#).

- **Redeemable and fully backed** - CARBON is backed and redeemable (redeemer must have an approved account with an internationally recognized Registry) for the underlying carbon credit asset.
- **Diversified with the highest quality credits** – CARBON is backed by a diversified basket of the most fungible credits available. Credits must meet high standards of both quality and fungibility as determined by the market at large at any given time.
- **Transparent and Secure** – The credits behind each CARBON can be audited at any in real-time on the IHS Markit Registry and the APX Registry where the underlying credits are stored. Credits are held in internationally recognized registries which specialize in holding and transferring such credits.
- **Price Stability** – Carbon credits have a volatility index similar to, or lower than, other natural resource assets such as gold, timber, etc. Additionally, the bulk of credits held by the Veridium Foundation, known as REDD+ credits, are backed by high conservation value (HCV) forests, a finite, non-renewable resource, thereby naturally limiting supply.
- **CARBON delivers positive environmental impact** - Since credits are certified and issued under a results-based, (ex-post accounting) regime– the benefits to the environment has already occurred. Thus, by just holding one CARBON as a store of value, the holder is contributing quantifiable positive environmental impact to the planet. On average, one carbon credit not only delivers one tonne of carbon emissions reductions/avoidance, but also, in the case of REDD+ credits, delivers forest and

biodiversity conservation, water conservation and positive social impact through the support of forest-dependent, rural and indigenous communities.

## Veridium Marketplace

Veridium is creating an institutional-grade platform that enables consumption and trade in carbon credits and other natural capital assets.

The Veridium Marketplace will offer price transparency and liquidity to natural capital markets that are typically traded over-the-counter. The marketplace will offer spot markets for a variety of tokenized assets, including carbon offsets and other environmental assets that corporations can acquire to offset their current environmental impacts as well as hedge future obligations.

Initially, the marketplace will trade CARBON tokens backed by verified carbon offset credits. Over time, the marketplace will include other natural assets that complement our mission to accelerate the advent of a fully regenerative free market economy.

## Tokenization

The tokenization component of the marketplace enables the creation of digital tokens backed by carbon credits and other natural assets. Issuers of carbon credits can use this functionality to list their offset project on Veridium Marketplace and issue new, project-specific carbon credits, which will be listed on the Stellar Decentralized Exchange, with a unique order book and sold to buyers who purchase the credits in the open market.

The Veridium Foundation will be responsible for setting up clear standards for project tokenization.

New tokens will be issued on the Stellar Consensus Protocol (SCP). SCP uses distributed consensus to deliver low latency, trust, and security in a decentralized manner<sup>ii</sup>. Stellar is designed for easy creation of tokens and conversion into any type of fiat or cryptocurrency. This had led to its rapid adoption by a large number of blockchain projects. As adoption of the SCP standard gains momentum, use of this standard means tokens will have a large community backing the development and compliance of the SCP protocol.

Veridium Marketplace will support:

- **Spot Markets:** Immediate consumption and trading of CARBON tokens. Spot markets allow for the immediate receipt of asset-backed tokens on the Veridium market. For supply chain integration with the EcoSmart-Transaction™ contracts, spot markets are useful for immediate implementation of supply chain offsetting activities on the books.

## New Assets Offered in the Veridium Marketplace

Projects that provide positive social and environmental impacts come in all forms. From planting and maintaining forests, to installing solar panels in remote villages, to clean water restoration, the variety of carbon-positive and natural asset conservation projects is infinite. Providing a clear market price for these natural capital assets, and a financing model for these projects, is a key component necessary to creating a new regenerative economic model.

The current unsustainable model, which promotes environmental degradation, is partially a result of the lack of market prices and proper financing mechanisms. As a result, natural capital assets are grossly undervalued and therefore often misused. Conservation and renewable energy projects are underfunded in this paradigm, and organizations that could financially support their activities are unable to easily integrate their credits into their sustainability initiatives.

The Veridium Marketplace, through its tokenization process, provides a platform delivering solutions to these challenges. On the marketplace, conservation projects meeting the standards set by the not-for-profit Veridium Foundation will be able to offer their environmental credits according to the market value of their environmental mitigation capacity. As the Veridium ecosystem develops, the marketplace will be able to match corporate buyers with the new offset suppliers, providing a sales and financing channel for these projects. This has the potential to create a new source of funding for the enormous range of natural asset projects that have previously had no investor outlet.

## Solutions for Corporations

### EcoSmart-Transactions™

An EcoSmart-transaction™ is a technology and set of standards for the automated integration of carbon credits into corporate transactions and supply chain management. The EcoSmart-Protocol has been developed by EcoSmart-Labs and licensed to Veridium as an integral part of its total solution by integrating the accounting tool into the Veridium Marketplace and Hyperledger Fabric framework based enterprise platforms. The EcoSmart-Transaction™ solutions automates the complex process of carbon accounting and offsetting into a single integrated process solution for enterprise and consumer transactions using blockchain technology.

Veridium's technology facilitates two key activities. First, it serves as a communication layer that independent systems can use to facilitate carbon accounting and then offsetting. This covers a broad array of disparate systems, including accounting and operational systems that are generally difficult to integrate. Second, the protocol automates the purchase and retirement of tokens in our ecosystem as transactions occur, moving the task of purchasing and retiring CARBON tokens behind the scenes for the end user.

Veridium's EcoSmart-Transaction™ solution allows corporations to quickly calculate and purchase the offsets needed to balance any environmental impact they have for any particular material, component, part, or activity. For example, when a corporation purchases 10,000 tons of sugar, they can access the EcoSmart-Protocol™ through Veridium's platform and then automatically offset the carbon liability associated with the purchase, with the automated purchase and retirement of a CARBON token through the Veridium Marketplace, and which triggers the retirement of the underlying carbon credit from Veridium Foundation's carbon bank.

Veridium's EcoSmart-Transaction™ solution is designed to be integrated into additional supply chain management systems. With the mission of improving the environmental outcomes of corporations, Veridium will make the EcoSmart-Transaction™ solution available to organizations to utilize within their supply chain management systems via an enterprise portal on the Veridium Marketplace. The expectation is that this can contribute to the expansion of the Veridium ecosystem as a whole.

## Simplified Tool for Enterprise Environmental Liabilities

Veridium is positioning itself as the preferred means of marketplace for all types of natural assets as both voluntary and regulatory-imposed environmental offsets are integrated into major supply chains. Corporations using using those solutions can offset their environmental impact automatically through Veridium.

Veridium's EcoSmart-Protocol™ greatly simplifies the carbon accounting process by measuring the carbon density per dollar for distinct industry sectors and product groups. This innovation moves carbon offsetting from a task that requires environmental industry knowledge to a simple process based on fiat transaction amounts in sector categories. Rather than applying offsets based on a review of operational emissions, EcoSmart-Protocol™ transactions arrive at a similar offset outcome by simply entering a dollar amount and transaction type. This solution paves the way for increased automation and reduced costs.

## Hedging Against Future Environmental Liabilities

Holding CARBON as a digital environmental asset, rather than the underlying mitigation credits, de-risks and optimizes the investment as a long-term hedge in several ways:

- The tokenized asset is more liquid, giving CFOs and fund managers more flexibility on properly sizing their long-term positions on a regular basis.
- Since these hedges are backed by underlying assets, positions in CARBON are liquid assets that can be placed on the balance sheet and borrowed against.
- The underlying commodities are not at risk of "going stale" or not being fungible. The process used to replenish carbon credits ensures that the carbon and conservation credit bank managed by the Veridium Foundation is stocked with recent vintages.

Veridium believes that simplifying the carbon accounting protocol and making the carbon markets more accessible and transparent are all critical in order for corporations and consumers to participate, at scale, in the fight against climate change. The Veridium team has an established history of working with corporate leaders such as Microsoft, Intuit, PwC, Shell and BP, in their carbon sustainability programs, providing necessary insight into the challenges large corporations face.

One of the most difficult problems—the accounting of carbon liabilities and offsets—has been automated through the development of EcoSmart-Labs' unique carbon accounting methodology, the EcoSmart-Protocol™. When accessed on the Veridium Marketplace, carbon liabilities can be measured and mitigated at any transaction point along a complex global supply chain. Using Veridium's technology solution, the entire carbon accounting and offsetting challenge is executed in a fully automated process that funds a continuous cycle of environmental investment and positive impacts.

Veridium's platform consists of three primary components, which are discussed in greater detail in later sections of this whitepaper:

- **Tokenized Environmental Asset Credits:** Digitizes carbon credits and other environmental assets into decentralized units that are easily transferable. The initial tokenized asset offered will be the CARBON token, representing a diversified basket of carbon credits that deliver quantifiable social and environmental impact value as well.
- **Veridium Marketplace:** Allows fluid and transparent consumption and trading of a broad class of carbon offsets and other natural capital. Initially, the marketplace will feature the CARBON token. Over time, the marketplace will allow anyone with internationally verified environmental assets, to list those assets on the marketplace.
- **EcoSmart-Transactions™:** Automates the entire carbon accounting and offsetting process by integrating the EcoSmart-Protocol™ with blockchain-based supply chain management systems, such as blockchain platforms on Hyperledger Fabric framework and the Veridium Marketplace.

Beyond carbon emissions, the blockchain infrastructure and crypto-asset marketplace will position Veridium to address more of the world's largest sustainability issues by tokenizing other environmental credits. Natural capital assets include sources of natural resources such as forests and fisheries, protected lands, and water bodies that provide inherent value in the economy. Many natural capital assets also serve as environmental sinks for the disposal of waste.<sup>iii</sup>

## Solutions for Consumers

In order to further support Veridium's mission, the team is building consumer level products allowing anyone to get involved in the fight for environmental sustainability. These technologies



will utilize the EcoSmart-Protocol™ to offset consumers' carbon footprint. Veridium is launching a consumer-focused mobile application that allows anyone with a smartphone to use Veridium's CARBON tokens automatically offset the carbon footprint of their purchases. This application is called VERDEPAY.

## VERDEPAY™

Using the EcoSmart-Protocol™, Veridium is building a consumer-focused offset application called **VERDEPAY™**. The mobile app empowers consumers to become carbon-neutral in their daily lives at a minimal cost. **VERDEPAY™** will enable consumers to link online bank accounts, credit card accounts, debit card accounts, PayPal and other online payment accounts to their VERDEPAY wallet to turn their purchases into environmentally responsible expenditures.

**VERDEPAY™** works by receiving transaction information from linked accounts and displaying them to the user. Once transactions are downloaded, users can select which transactions they would like to offset. The application then initiates an EcoSmart-Transaction™ behind the scenes to offset the users' selected financial transactions.

The alpha version of the app was built at the AngelHack hackathon in Silicon Valley on April 28 and 29, 2018, with the beta version anticipated to be released in the future.

## Company

Veridium is led by the founders of InfiniteEARTH, a leading global conservation landbank and carbon credit producer. At InfiniteEARTH, our team created both the first REDD+ carbon accounting methodology, now embodied in the UN Paris Agreement, and the first validated REDD+ project. Those efforts now protect over 64,000 hectares of forests and provide sanctuary for over 100 threatened and endangered species.

Veridium's journey started over twenty years ago in 1996, when founder Todd Lemons formed the EnVision Corporation as an incubator for sustainable technologies and social and environmental enterprises. Within four years, with funding from private investors, the company had created its first line of environmentally-friendly building products which were distributed in Home Depot, Lowes and Masonite Door, bringing the company to more than \$40mm USD in annual revenues within six years.

In 2007, the EnVision team funded InfiniteEARTH, which subsequently authored the first internationally accepted accounting methodology for "forest conservation carbon credits", known as REDD+. Through this REDD+ mechanism, InfiniteEARTH developed the Rimba Raya Biodiversity Reserve in 2010. Rimba Raya was the first validated REDD+ project and also became the first to earn Triple Gold certification under the CCB standard, which is the highest standard achievable in the industry. Since then, InfiniteEARTH has become a leader in environmental mitigation solutions, with a corporate client list that includes:



*\*Founding Partner's Client Base for REDD+ credits & other environmental solutions*

In 2016, Veridium was formed in response to the challenges of carbon accounting and offsetting expressed by these corporate clients. Despite growing interest and demand for carbon credits, carbon credit management remains a challenge. Our 25-year history of providing environmental mitigation solutions uniquely positions Veridium to deliver viable and scalable solutions to the carbon credits markets. Veridium has been working for the past two years on technologies that can solve these industry needs and contribute to the inevitable transformation to a sustainable global economic model.

## Veridium Core Team

### Will Evana - CEO, Veridium Labs



Will has over 25 years of experience in global derivatives markets technology and market structure. Mr. Evans' 16-year career at CME Group began in the Technology Division at a formative time in the commodity derivatives markets when open outcry trading transitioned to electronic trading resulting in explosive growth and eventually industry M&A consolidation. Mr. Evans advanced in his career at CME Group which led him to the Corporate Program Management Office where he led corporate wide, cross divisional strategic initiatives such as integration planning and execution post acquisition of The Chicago Board of Trade, merging the product and services divisions as well as the market operations divisions. He then was appointed by executive management to the role of Chief Operating Officer of a wholly owned subsidiary, Swapstream LTD, a UK based Interest Rate Swap trading platform used by the global tier one interdealer banks. Later he returned to the Corporate Development Division where he focused on in-organic strategic growth initiatives, establishing an electronic order routing link with the Mexican Derivatives Exchange (BMV Goup) and product cross licensing agreements with the Brazilian derivatives exchange B3. More recently he led CME Ventures, the strategic corporate venture capital arm of CME Group. As Board Member, and strategic partner, Will has contributed to foreign derivatives exchanges in development of market structure, derivative product strategy as well as early stage fintech companies influencing change in how global markets operate.

### Todd Lemons - Chairman, Veridium Foundation



For 28 years, Todd has been pioneered the development of market-based sustainability solutions. As Chairman of EnVision Corp, an incubator for sustainability technologies, he has led the creation of several startups that are on the leading edge of innovation in the space. With early funding from EnVision and under Todd's leadership, Composite Technologies Intl. - a manufacturer of sustainable building products to Home Depot and Lowes - grew from a startup to over \$40M USD in annual revenues in just 6 years. Todd also led the creation of InfiniteEARTH, a Conservation Landbank company that authored a "forest carbon accounting methodology", known as REDD+, which is now recognized by the United Nations and embodied in the Paris Agreement.

## Jim Procanik - Executive Director, Veridium Foundation



Jim is the co-founder of InfiniteEarth, a company dedicated to developing and managing tropical conservation land banks. InfiniteEarth provides environmental offsets and private-label CSR solutions to companies around the globe. Along with Todd Lemons, Jim helped develop the first validated REDD+ project ever under the VCS and helped define the criteria by which all projects are measured. Jim founded Green Projects, Inc. and has spent more than two decades growing businesses in the entertainment and fashion industries.

## Neslihan Feradov - Director of Strategic Partnerships



Neslihan has held executive positions in ABB New York and Unilever Dubai, where she advised and spearheaded business development and marketing strategies with a heavy focus on sustainability. Neslihan has worked within the Ministry of Energy in Ankara, Turkey executing renewable energy and sustainability strategies. Neslihan was also the co-founder of Kairos Society UK chapter. She holds a Master's degree in Environmental Change and Management from Oxford University.

## Board of Advisors, Veridium Labs

### Matthew Le Merle



Matthew Le Merle is co-founder and Managing Partner of Fifth Era and of Keiretsu Capital - the most active early stage venture investors backing more than 175 companies a year. In the blockchain and crypto domains, Matthew is General Partner of the Keiretsu Capital Blockchain Fund of Funds, an advisor and/or investor with BitBull, Bitwise, Blockchain Capital, Blocktower, Castle Island, Future Perfect and Pantera. He also provides advisory services through his teams at Fifth -Era Blockchain and Blockchain Generation and is a project advisor at ACX, Atlas Money, Codex, Hadron, Liquineq, ReadyUp and Veridium.

### Joel Telpner, Legal Advisor



Joel is a partner in Sullivan & Worcester's New York office, heading the finch and blockchain practice. A highly sought-after legal advisor in the blockchain space, Joel works working with a large number of clients in structuring token distributions and enterprise blockchain applications. He has more than 30 years of legal and business experience in a career that includes time as an AmLaw 100 partner, the former U.S. general counsel of a global financial institution, and a venture capitalist.

### David Lee



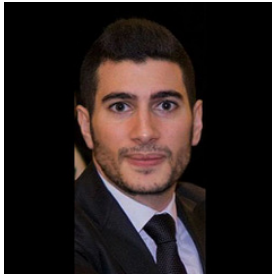
David is a Director at Widus Partners Singapore. David primarily advises on token projects and ICOs, corporate and financial transactions on behalf of buyers, issuers and underwriters including cross-border M&A, debt/equity offerings and various other fundraising efforts and strategic investments. David has previously worked at leading global law firms including Latham & Watkins LLP and Sidley Austin LLP, where he had advised clients across the corporate and emerging tech sectors in the Asia Pacific, particularly in China, Hong Kong, Singapore, India and Korea. David holds a J.D. from University of California, Berkeley, and a B.A. from Emory University.

## Shandi Modi



Shandi is the founder of IDEAglobal Group, a globally recognized ratings development company that advises governments, hedge funds and finance professionals worldwide. Shandi founded the Carbon Ratings Agency and IDEAcarbon to service the IDEAglobal Group network of public and private sector organizations.

## Hazem Danny Nakib



Hazem is a fintech and regtech expert who serves on the Board of Advisors of Securrency, Coinfirm, Humaniq, and F6S. Hazem is also the co-founder of multiple business incubators and frequently speaks on the changing regulatory landscape of blockchain and other emerging technologies. Mr Nakib has also worked with the Royal Bank of Canada and the Boston Consulting Group.

## Yo Sub Kwon



Yo is CEO of Hosho Group, the global leader in blockchain security. Prior to Hosho, Yo co-founded LaunchKey, acquired in 2016 by TransUnion. A serial entrepreneur and cybersecurity expert, Yo has an established history in the blockchain space, serving as a co-founder of Coinsetter. Yo was included in Inc. Magazine's prestigious 2013 "30 Under 30" entrepreneur list.

## Alan Laubsch



Alan is an entrepreneur, connector, and a thought leader in risk management. Alan is Chief Strategist of GenBlue. Previously, Alan established Natural Capital Markets at Lykke AG, and listed the world's first mangrove and Blue Carbon backed blockchain token (TREE). Alan has over two decades of risk management experience with leading financial institutions and was a founding member of the RiskMetrics Group (now MSCI), a JPMorgan spin-off.

## Lawrence Dunn



Lawrence has over 25 years of experience in derivatives trading and fintech. He was the head of the risk management business (EMEA) at RiskMetrics Group, where he also held management positions in marketing, research, and CDO products. Lawrence was global head of base metals trading at Citigroup and a derivatives trader in metals and energy at JPMorgan.



## Board of Advisors, Veridium Foundation

### Martijn Wilder



Martijn is head of Baker and McKenzie's Global Environmental Markets and Climate Change. He also serves as Visiting Professor of Climate Change Law at the Australian National University, Chair of the Australian Renewable Energy Agency (ARENA) and Director of the Clean Energy Finance Corporation, WWF (Australia) and the Climate Council. He holds advisory positions including Chair of the NSW Climate Change Council, a Governing Board Member of the Renewable Energy and Energy Efficiency Partnership (REEEP).

### Dr. Scott Massy



Scott is Chairman and CEO of Global Action Platform, a university-business alliance to advance scalable, sustainable solutions for abundant food, health, and prosperity. Global Action Platform is affiliated with the Institute for Strategy and Competitiveness, Harvard Business School. Scott serves as Executive in Residence at the Massey School of Business, Belmont University, and a member of Michael Porter's national Microeconomics of Competitiveness network.

### Gerald Prolman



Gerald is a serial entrepreneur with a 38-year history building branded, specialty consumer product companies. Companies founded and led by Gerald include Made in Nature Inc. (the first organic produce brand in the US to break through to mass market retail) and Organic Bouquet, Inc. (the world's first online organic floral gifting site). Gerald joined Wildlife Works in 2004 and served as EVP of Business Development in 2007. Gerald is president of "Everland" a new company launched by Wildlife Works.

## Veridium: Supported by Global Leaders

Veridium is a collaborative initiative between a coalition of industry leaders, including Stellar, Brian Kelly Capital Management, Blockchain Capital, EcoSmart-Labs, IDEACarbon, and Everland.



## Conservation Credit Partners

The Veridium Foundation will be responsible for sourcing the underlying carbon credits behind CARBON. The first world-class conservation partners in the partnership are leaders in their space.



## Third-Party Verifiers, Registries, and Rating Agencies

Conservation Credit Standards



Financial Auditing



Social & Environmental Impact Ratings



Renewable Energy and Credit Standards



## Environmental Asset Registries



# Legal

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## Endnotes

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<sup>i</sup> <https://news.stanford.edu/2015/01/12/emissions-social-costs-011215/>

<sup>ii</sup> <https://medium.com/a-stellar-journey/on-worldwide-consensus-359e9eb3e949>

<sup>iii</sup> <https://www.ncbi.nlm.nih.gov/pubmed/17208706>