ARBOR VERIFICATION TECH

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B

- Product/Project/Process impact **metrics**
- Community growth interactive **badges**
- Objective organisation impact **reports**
- Clear transparent independent **financials**
- Verified assurance certificates and **rewards**
- Consumer Duty Live fact/sentiment **dashboards**
- 4IR - Blockchain, AI, IoT, Web3, 5G **data**

Arborsolution.Earth
Whitepaper 16.4

SELECT • CONNECT • INSPIRE • REWARD • SPEND

Arbor points — ANIMAL WELFARE

Arbor points — INSECTS

Arbor points — TREES

Arbor points — FORESTRY

Arbor points — CARBON

Arbor points — CHARITY

Arbor points — WILDLIFE

Arbor points — BEES

Arbor points — CROWD FUNDING

Arbor Whitepaper 16.0

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London
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Connecting Trust in Sustainable Lifestyles thru Verification Tech

"The real problem of humanity is the following: We have Paleolithic emotions, medieval institutions and godlike technology. And it is terrifically dangerous, and it is now approaching a point of crisis overall."
Edward O. Wilson
(Father of Biodiversity and Sociobiology)

"The cost of a thing is the amount of life which is required to be exchanged for it, immediately or in the long run"
Henry Thoreau
(Environmental Scientist and Political Activist

Whitepaper version 16.6.4 is based on previous 15 whitepapers available on Github and CCEGBlockchain.com

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Executive Summary

Imagine a day when you are your own superhero who saves the world. Not by defeating aliens, but by helping green projects and taking environmentally friendly actions to prevent the disaster of climate change. A place where all actions, no matter how small, will be recognized, tracked and united to create a gigantic force. All driven by a single solution in your pocket. We and future generations will value everything you do today.

Technological revolutions are taking place continuously. It seemed as though humans could dominate everything with their knowledge and superior strength. But when Mother Nature becomes furious, facing devastating storms, dreadful droughts, and the looming threat of extinction due to climate change, humanity realizes how small we truly are.

Whilst technology empowers humanity - the internet helps bridge distances, yet never before has humanity appeared so divided. Faced with doomsday scenarios of our natural world, we are making little progress and have yet to unite over the hearts and minds of half the planet; the naysayers who are not convinced of climate change, the politicians who cannot balance what is right for the planet with what is right for the country, and the cynicism of disbelief in the woke agendas we are bombarded with everyday. We are better at resolving the tangible challenges than the intangible attitudes. We need to reconnect people's values with the environmental outcomes so we are passionate about our collective future.

This is exactly what Arbor does.

At Arbor we start by creating a digital twin of our partner's digital ESG (environmental, social and corporate governance) asset and then attract the consumer to directly interact with it for mutual gain. All the tech wizardry is hidden in our ReFi (Regenerative Finance) Engine leaving you to interact in a fun but yet purposeful gamify manner, ever growing the community sentiment behind the project.

We are not selling another kind of carbon credits. Despite scientists attempting to overlay increasingly complicated formulas onto them, the public is growing more sceptical of its utility. Carbon may inform our decisions, but ultimately our values are the main determinator. Arbor believes in the values of each individual and integrated with factual data transforms this into an accessible and inclusive verification tool.

It is not just a tree, it is YOUR green asset. It is not for us to possess but owned by future generations. In our applications you can digitally touch the asset you've fallen in love with, corroborated by independently verified impact standards ensuring you are investing into the future, and not an empty marketing campaign. Publicly recognised amongst your peers, we will record your time and dollars with materially meaningful rewards from aligned retailers and educational credits from global institutions who wish to acknowledge your learning and support for the environment.

Behind the scenes is a Deep Tech developed over 15 years by international universities who have pioneered the measurement, transaction and delivery of how our emotions – our values, beliefs, ideology, opinion and faith - can drive good outcomes for the world. This is the next evolution of a new class in gamification that will contribute to a revolution powered by the web3 world. By deploying the latest cutting edge technology in 4th Industrial Revolution Technologies (4IR) – blockchain (DLT), AI, IoT, 5G, web3 ... our innovative system offers a transformative approach to business development and sets it apart in the market.

At the core of our system is a simple and intuitive user interface, optimized for seamless interaction on mobile devices. This user-centric design ensures that even the most technologically-challenged individuals can easily navigate and leverage our platform, making it accessible to a wide range of users. Fully customer branded, end users will be able to accumulate the branded points and able to spend those points earned from participating in the creation of 'ESG good' tracked by Arbor who offer collective rewards from a myriad of partners across multiple customer brands. Globally Arbor will be able to collectively track ESG progress across sectors (trees, bees, animal welfare, etc), across themes (retail, education, coffee, etc) and across geographic regions providing an international index.

Example branded Arbor app for Asili Coffee Estates

MyIMPACT - your personal ESG value including modern slavery, pay disparity … all independently certified.
MyESG - the user claims a block of the asset and connects directly with it and those who create it (farmers, etc)
MyREWARD$ - where performance of the esg assets including your support results in financial rewards for you
MyRETAIL - where you get discounts from retailers aligned to your values through epos till QR codes
MyEDU - where you earn academic credits through ESG education awarding you with institutional diplomas
MyGAMES – games where you have fun whilst earning credits for ESG in-game activities
MyEARTH – tracking your contribution towards global welfare through your participation eg. discounted agro-tourism
MyVIEW – through video, IoT and geolocation monitor and experience at first hand connecting growth emotionally
MyVALUES - register your values and interact with KOL (celebrities, influencers, etc) digital AI avatars aligned to you
MyAI – ask the Arbor AI, your personal partner who knows your metrics, and s/he will guide your ESG journey honestly
MyALLIANCE – take part and benefit from the broader alliance programme stemming from many related ESG brands
MyNOWOKE – review aggregation 'rotten-tomatoes' system to express your dissatisfaction with woke campaigns

Fundamentally, we believe that it is no longer enough to simply report cold ESG impact metrics. Greater results will come from the ability to interact with our environment, we have to emotionally connect, and be able to express our happiness that asset has created for us individually and collectively including financial and non-financial benefits. This is part of the modern tech sentiment analysis revolution that Google, Amazon, Apple, Meta, X, TikTok, Tencent, Alibaba, Baidu has generated which Arbor uniquely is pioneering in our values driven society particularly embraced by Gen-Z and Gen-X audience where Key Opinion Leaders (KOL) represent 70-80% channel gateway to sales, not merely the functionality of products.

Underpinning our system is a robust and regenerative measurement engine that draws data from multiple touch points. This includes physical monitors, sentiment analysis, and comprehensive community verification, ensuring the accuracy and reliability of the insights generated. Our advanced analytics capabilities empower users to make informed, data-driven decisions that drive sustainable growth. ReFi has the ability to reward financial donators to projects driving a growing pot of money for our clients.

To further strengthen our offerings, we have forged strategic partnerships with a diverse and growing array of ESG companies. These collaborations allow us to leverage a wealth of expertise, resources, and networks, enabling us to deliver comprehensive solutions that align with the evolving ESG landscape. By seamlessly integrating these key advantages, our system offers a greater emotional attachment to partner projects, with enhanced verification of impacts, results in much greater traction amongst fiercely loyal interactive communities who will fund more aggressively, broadcast the partner impact with passion and attract institutional support in rewards programmes.

1. The ESG Market Problem

With the burgeoning environmental agenda and the rise in interest in climate change, net zero, ESG, impact investment, COP28, sustainability, etc has been an equivalent rise in green washing, woke agendas, green sheen, halo marketing and other practices that obfuscate the pure intention. This is not necessarily deliberate or Machiavellian but an over reliance on ESG metrics to report progress to shareholders, media, public, voters, society and concerned pressure groups. There is, however, no common language of reporting, no agreed metrics, no common standard, with over 3500 global metrics … and rising. Verification and certification bodies have risen to address the scepticism of the audience but they just add to the confusion – not clarify it.

It is a well known philosophical prose questioning whether an acorn falling in the forest makes a sound if there is no one there to hear it? And so, if our climate is deteriorated but we fail to take into account the impact on people, animals and nature, their feelings - are we capturing just a partial picture? Would a positive impact be greater if a million people are involved, and their lives happier with enhanced alignment to those values, than if a single corporate cleaned it's own ocean spill silently? It is clear that sentiment plays a key role in ESG impact.

Our approach is quite different and unique. The essence is this – everything of value to us consists of both hard tangible aspects intertwined with our soft intangible values – this combination of value and values we call Total Value. The focus has always been on measuring the former and somehow we believe that facts will convince us of what is good, right or healthy. Unfortunately (or fortunately?) hard assets like money, lack of pollution, etc contribute to our wellbeing but our emotions, happiness, and beliefs determine the strength of our commitment to the green cause. If we don't believe in climate change, or don't want to, no amount of facts will persuade us it's true and that we need to change our behaviour. So we report both material change as well as the emotional bond it has created … and yes, we have a metric for that, based on a decade of university research internationally recognised by governments, corporates, NGO's and even The Vatican. We are the only ones who can do this, have no competition, and are impartial in our reporting with 100% objective reporting.

Through Arbor Points based on our simply expressed metric we reward both the institution and the followers who support it. We incorporate and recognize all existing metrics but our Arbor system builds on it to make it better and more effective with enhanced feedback loops. Through our ecosystem, easily accessed through our Arbo app, we act as a conduit to bring in an audience, support, funding and recognition. We directly connect the supporter with an exact ESG asset linked and tracked though blockchain of which we are considered a world authority. The system, devised for a listed London Stock Market company, devises a secondary ESG marketplace for transaction and investors. We believe 'goodness' must become transactable, rewarded and recognised. We started with trees, but now encompass the whole sector as often these are related issues. As the follower registration grows, this leads to opportunities in other markets such as retail who need access to those followers. We apply equally to both IRL (In-Real-Life) markets as well those digitally online (eg digital trees), verifying the 2 worlds reflect each other.

Our emotional connection to diminishing green assets is as important as the actual degradation of the world's resources. It is our personal experience of the forest, of nature, of wildlife, of fields, mountains … that brings us happiness and peace, not just anonymous facts that we struggle to connect with. It is only real if we feel it, so we focus on addressing both issues intervening to improve not merely report. It is the Arbor ecosystem that will drive change, not just a metric which is only a single instrument. We are one small but essential cog, often missing, in the challenge to make the world a better place.

2. Theoretical Framework

Whilst there has been many attempts to track environmental indexes, often based on carbon movement, the tracking of human emotion and connection to the environment is much less explored. Hard tangible asset transactions such as money, carbon credits, etc are based on gain/loss models; when you pay someone you lose the asset and they gain it. Soft intangible asset transaction must include mutual gain/loss; when you smile at people and they smile back, you haven't lost happiness but both parties have gained. Financial based assets have limited pots, non-financial based

assets can be like the warmth of the sun, usage does not materially effect supply. Even more of a challenge – how do you express the impact of intangible assets – through a $ value, happiness index, etc? There are a myriad of challenges and we have been studying this intensely since 2011 within first 2 British universities, and within a specialist academic centre that works collaboratively with c. 40 universities[1] worldwide since 2013. This intense research curated by the Centre for Citizenship, Enterprise and Governance[2], a UK not-for-profit NGO that focuses on the movement of value(s) - measurement, transaction and delivery – with over 220,000 members worldwide.
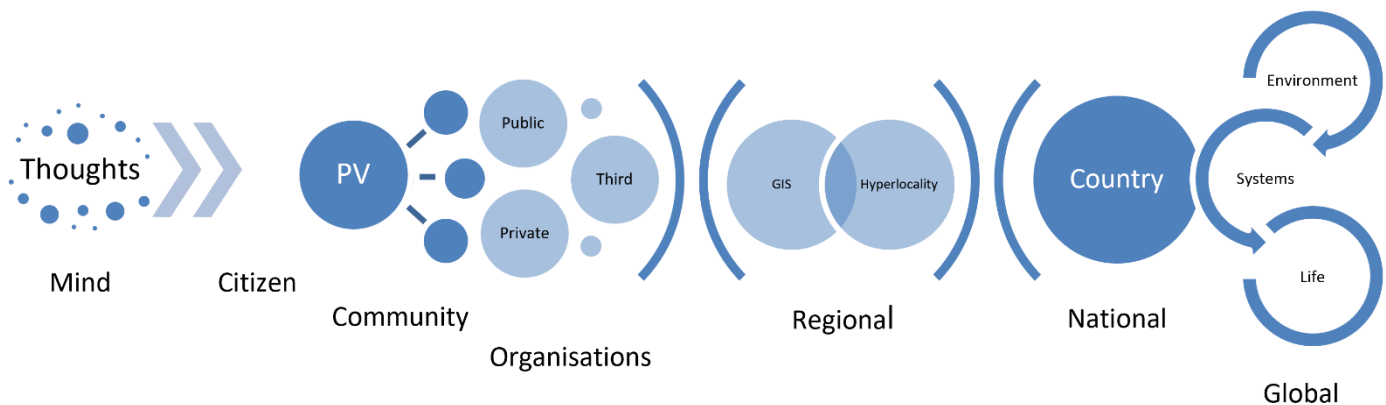
Before we explain the Arbor solution, we need to summarize the academic theoretical framework that has led us here, that has been used to underpin robust legislative instruments in many countries. Our Seratio® framework has the ability to link systemically our thoughts to outcomes in the world by using a series of university developed impact formula measuring organisations, products, projects, processes and even people. By codifying ideology, values, beliefs, and faith we have developed the mathematical instrument to begin to understand and metricise our intangible emotions to tangible outcomes at micro, meso and macro levels . This enables us to nudge our behaviours through gamification of rewards whether through soft assets like badges of recognition, hard assets like retail discounts, education certification contributing towards a diploma, etc

2.1 Impact of the Organisation

From previous research explained in detail in Whitepapers 1-14[3], we have extracted these formulae as being relevant to Arbor.

$$Total\_Value = Financial\_Value + Social\_Value \qquad (1a)$$

$$SV = \int (staff\_community\_\sup pliers\_customers\_government\_environment) \quad (1b)$$

$$Social\_Value = \sum (Environment\_People\_Finance) \qquad (1c)$$

$$Total\_Value = Tangible\_Value + In\tan igble\_Value \qquad (2)$$

$$Financial\_Value = \langle Share\_\Pr ice\_\$ \rangle \times \langle \#\_Shares \rangle \qquad (3a)$$

$$Share\_\Pr ice\_\$ = \int (Financial\_Sentiment, Capitalization) \qquad (3b)$$

[1] https://cyberfutures.net/
[2] https://www.cceg.org.uk/
[3] https://ccegblockchain.com/white-papers/

$$Financial\_Sentiment = Aligned\_Investors \Big/ Total\_Investors \qquad (3c)$$

$$Pr\,ice\_Earnings\_Ratio = Capitalization \Big/ Earnings \qquad (4)$$

$$Social\_Im\,p\,act = \frac{1}{r^2} \; x \; Social\_Value \qquad (5)$$

$$Social\_Sentiment = Aligned\_People \Big/ Total\_Community\_T\arg eted \qquad (6)$$

$$Social\_Earnings\_Ratio = Social\_Value \Big/ Earnings\_diverted\_to\_create\_it \qquad (7a)$$

$$S\Big/E = Social\_Value \Big/ CSR\_Spend \qquad (7b)$$

$$Total\_Value = P\Big/E + S\Big/E \qquad (8)$$

$$SER = \frac{\{Financial\ Social\ Output\ \$ + (Market\ int\text{-}ext\ won\ x\ Capitalization\ \$)\ /\ (Total\ Market)\}\ x\ Alignment\ \%}{Profit\ Diverted\ to\ Social\ Impact\ work\ \ x\ 10^{\,Degrees\ of\ Separation}}$$

$$(9)$$

From the above we are able to calculate the social value of an organisation expressed, which includes carbon credit contribution, as:

SER	Ratio
Social Impact	$
Added Social Value	$
Increase in Market Cap/NAV	%
Environment	%
People	%
Cash	%

With additional optional analysis to include

Tax Avoidance
Pay Disparity
Adjustments for small samples
Adjustments for hyperlocality

8.

2.2 Impact of People

Some 8 years ago using the Seratio® ecosystem we attempted to expand the theoretical framework to include a Personal Value metric, PV[4], which ultimately failed. It was not until 2022 that we finally worked it out and expressed it in our 15th whitepaper[5]. The basic learning has been that it is a mistake, perhaps even ethically questionable, to value a person's contribution based on financial outcomes, but it can work as a ratio expression. When someone tips in a restaurant for example, the expression is indexed to the value of the service and not to their personal wealth hence the now common defaults of 5%, 10%, 15%, 20% etc. The financial value of the goodwill is linked to the product value, not to personal value, but it allows it to be measured.

Relevant formulae from that research is:

$$\text{Microtip S/E Ratio}®\ (\text{S/E}^M) \quad = \quad \frac{\text{Attitude MCR}}{\text{Financial Value}} \quad = \quad \$^+ / \$ \qquad (10)$$

⇨   Total MCR awarded to retailer = Microtip S/E x Product Value

2.3 Impact of Products/Projects/Processes

So finally, more germane to Arbor's goals of connecting trust in sustainable lifestyles through verification technology, we have extended the theoretical framework. Through rapid data analysis we can measure the social impact, in $, of any organisation – NGO, retailer, restaurant, government agency, community, civil society, etc. In the ESG space, however, our emotional connection and benefit comes from how we feel about their outputs - products, projects and processes that brings us happiness and we can align to. We can star rate the organisation, but how do we rate the ESG outputs from such a myriad of diverse projects?
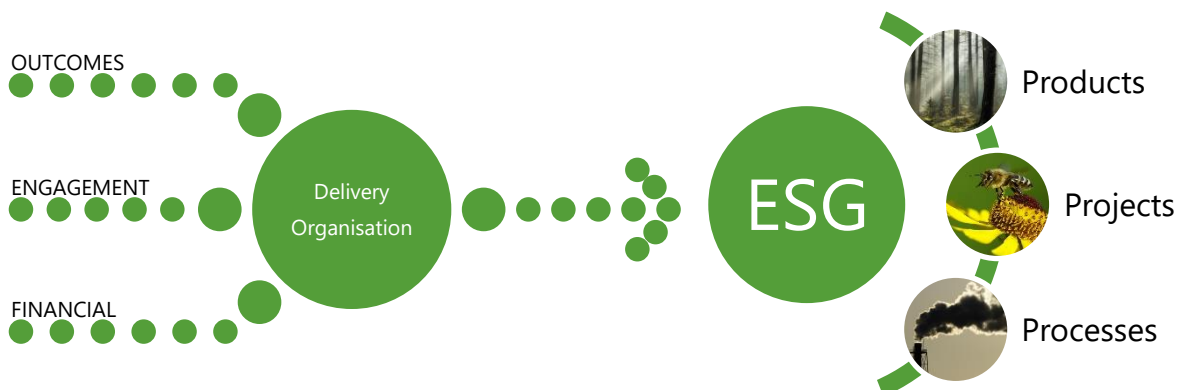
⇨   Organisational Social Impact   =   ∑ Social Value (Products, Projects, Processes)

=   ∑ [$SV_{project-1}$ + $SV_{project-2}$ + $SV_{product-1}$ + $SV_{-product-2}$ + $SV_{process-1}$ + ...]

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[4] https://youtu.be/DfWUA9fflZQ?si=Z1QTDeiUNXlW5p2w

[5] https://ccegblockchain.com/wp-content/uploads/2022/11/Ultimate-Battle-for-our-Hearts-and-Minds-whitepaper-15-16-Sept-2022.pdf
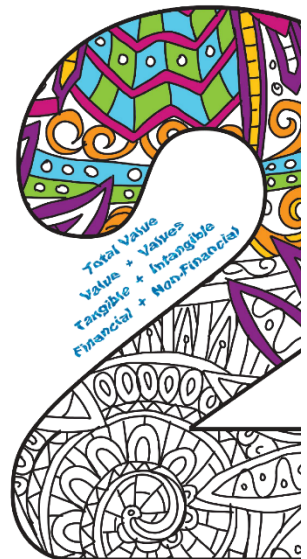
Using First Order Logic, commonly now used in AI, we can express the statement

Everyone who is aligned to Nature loves Nature

⇨   ∀x (aligned (x, Nature) → love (x, Nature))

Clearly then, if you are not aligned to an ESG project then it is meaningless to you; it will not give you happiness no matter the strength of the facts eg. shrinking ozone layer believers and sceptics. The key KPI then is not the factual element but the alignment. Your values drive the call to action and the ESG outcome, not just bare facts.

The most direct way to express alignment is through 'likes', RT, etc whether through existing social media platforms or through the follower attribution on existing ESG platforms against individual projects. Even without these, Arbor can create this through it's platform and app against each project of the engaged customer. The issue of rewarding the engagement of the community with badges, retail discounts, certification, education merits, etc through issuing Arbor Points relies on accurately forecasting the value of that engagement at that particular time. In a burgeoning project those who support or engage earlier in the project lifetime must receive greater benefits than those who came later on in the project lifecycle.

There are plenty of mathematical methods to do this, most based on the work of Chinese mathematician Hang Hui[6] who showed the relationships of a growing pyramid (better known in the West as Pascal's Triangle[7]).
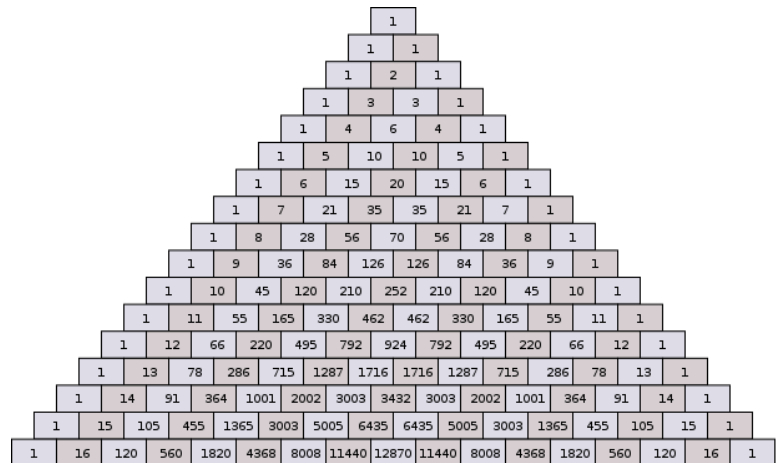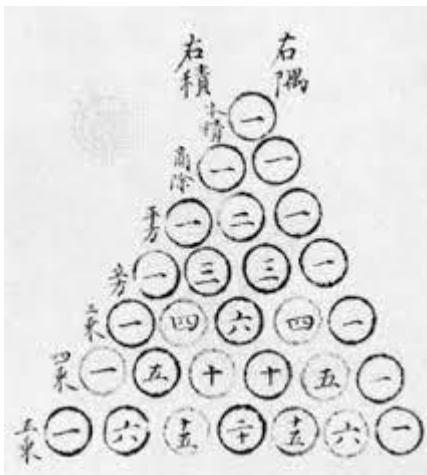
Unsurprisingly, this calculation method is often used in forecasting the success of social media influence, Net Promoter Score (NPS) outcomes, and in this form it is linked to Binomial Theorem[8] expressed as:

$$(x + a)^n = \sum_{k=0}^{n} \binom{n}{k} x^k a^{n-k}$$

Arbor Points uses Binomial Theorem to award engagement in each ESG project depending on the lifecycle. The earlier the better, the longer the lifecycle the better, etc. This makes such awards 100% objective and cannot be gamified.

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[6] https://en.wikipedia.org/wiki/Yang_Hui
[7] https://www.cuemath.com/algebra/pascals-triangle/
[8] https://www.linkedin.com/advice/1/what-some-real-world-examples-binomial-distribution

3. Digital Blockchain Arbor Solutions

3.1 ESG Community Engagement on Products, Projects, Processes and People

The Arbor App drives community engagement and audience growth. It is the main community instrument to follow a particular project and show support whether financially or emotional alignment, and to be recognised.
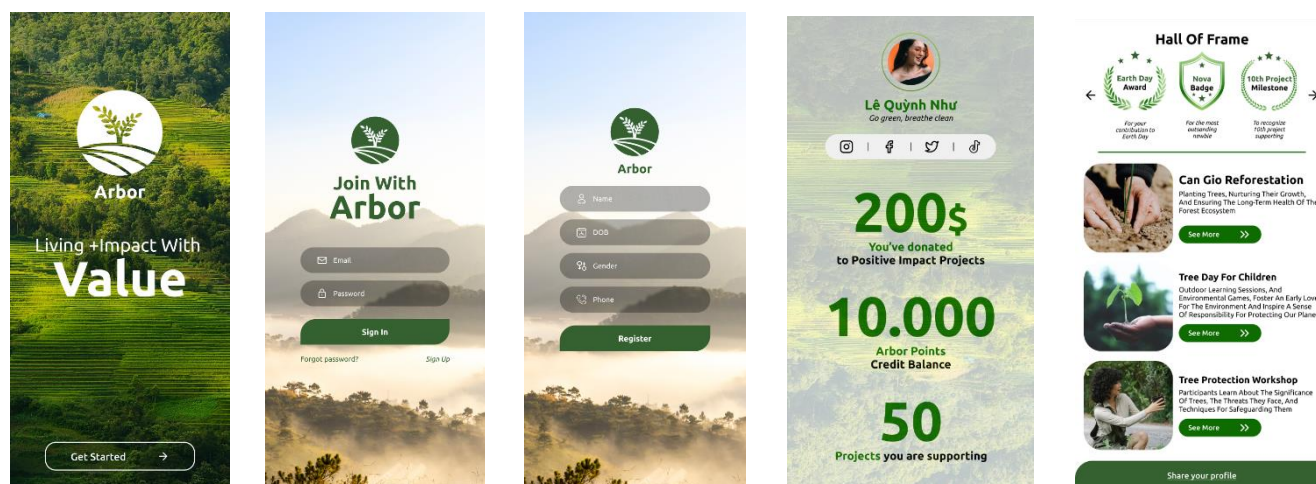
Recognition will lead to awards as explained above It will encourage cross organisation and cross project support from a much larger and ever growing pool of aligned followers forecast by our Pascals Triangle algorithm. We will be able to tell our partner clients what is likely to go viral, what will not attract support, and to what extent.

In the second phase of the App development, we will connect the follower to an individual ESG asset at a micro hyperlocal level eg. individual trees, individual bee hives, etc. This will provide even greater emotional bond, commitment and resources. The technology to do this has already been developed through blockchain.

3.2   Arbor Points

Arbor Points signals a verified contribution towards an ESG mission and the extent of that support. It is a certificated system backed by the Centre for Citizenship, Enterprise and Governance, a not-for-profit think tank established at a British university in 2013 and as an independent think tank in 2015.

It's important to understand that Arbor Points is part of the Arbor ecosystem, not a product in itself. Over 10 years of research has led us to the conclusion that the fundamental driver of value is our values, and we have created a circular economy based on this to deliver a more sustainable planet. So what does having Arbor Points mean?
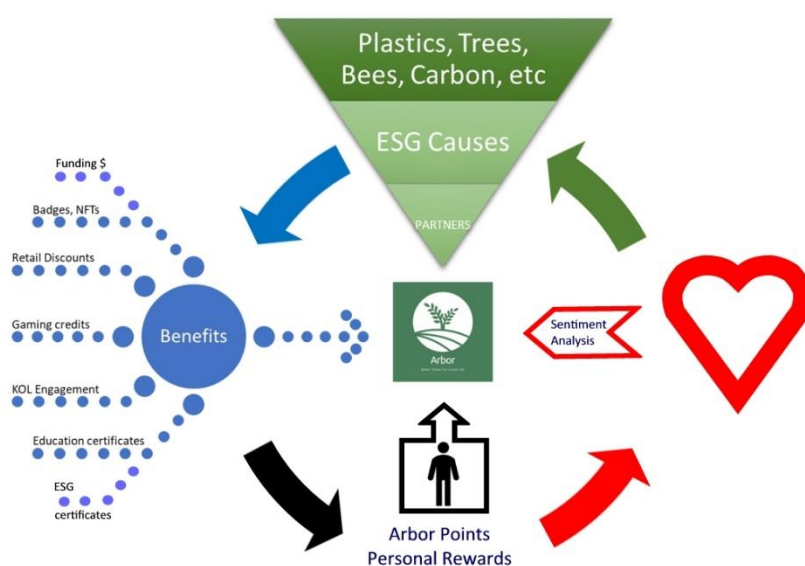
3.3 ESG Star Rating an Organisation

We will award a continuously updating 5 star rating for a partner organisation, verified on our live dashboard, which can be displayed as a marketing tool. Where the organisation is in its own lifecycle will be taken into account.

(a) ENVIRONMENT VERIFICATION: Each client must give us a TARGET they are aiming for (eg. number of trees planted, number of bee hives, etc) and they will provide an ACTUAL figure which we can verify from live update on their website, reported statistics and independent spot checks by ourselves and followers.

$$\text{Arbor Points (Fact)} = \int \frac{\text{Actual contribution}}{\text{Target Total}}$$

(b) SOCIAL VERIFICATION: Arbor sentiment analysis[9] will be derived from the emotional component of the organisation represented by their interactions – likes, RT, comments, etc on the partners' platforms (eg. videos) or their public social media platforms.

$$\text{Arbor Points (Sentiment)} = \int \frac{\text{Actual social media}}{\text{Target Total}}$$

(c) GOVERNANCE VERIFICATION: Arbor points are awarded depending on transparency of contributions, donations, subscriptions towards the budget to support the cause.

$$\text{Arbor Points (Financial)} = \int \frac{\text{Actual \$ received}}{\text{Target Total}}$$

(d) COMMUNITY VERIFICATION: Arbor points awarded for community engagement on the Arbor App ESG platform through both badge awards and retail engagement (further details below).

(e) OPTIONAL REWARDS: Arbor points awarded for benefits the communities receive such as …

    (i) Merits from our online digital UK university (www.exchange.ac.uk) which will award Arbor points for undertaking ESG courses at all levels upto and including university level. Accumulated they will be rewarded with diplomas and completion certificates.

    (ii) Retail rewards such as discounts from participating retailers who support certain ESG causes aligned to their values and marketing aspirations.

    (iii) Original NFT art given to those exemplar community followers as a thank you for their contribution, displayed in real life in art galleries in UK and Portugal.[10]

    (iv) Attracting engagement from KOL (key opinion leaders – celebrities and influencers) supporting their ESG campaigns.

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[9] https://www.social-searcher.com/ http://sentistrength.wlv.ac.uk/
[10] https://list.ly/list/7Bjw-acidtrip32-nft-uv-gallery

3.4 Arbor Hyperlocality

It is common in oil and gas exploration to breakdown the area into square fields representing areas that can be commercialised through land or sea rights; this one from Wildcat Petroleum Plc, quoted on the full London Stock Exchange, to whom we are official advisors.[11] We have developed the concept of democratizing ESG investment into markets where the primary asset is non-ESG related or even ideologically repugnant. The concept is that a secondary market can be developed where the asset is broken down to ultra small units which have potential ESG returns. The idea came from familiarity with the Boyle Family of Art[12] in London which captures art as Plaster of Paris casts of 1 square metre of space randomly chosen in the world. They captured the beauty in a physical but small asset of land, turned it into an intangible asset of art, and sold it for significant monies. ESG retail investors cannot afford large assets but a square metre does make it available in reach.

Sand, Wind and Tide series (1969)

We use Distributed Ledger Technology (DLT) to establish a digital connection between the investor or a community follower, directly with a hyperlocal ESG asset. We are a leading authority in the blockchain space and although most of our IP is open source protected by Creative Commons 4.0, this particular tech was developed for Wildcat Petroleum Plc and remains – for the moment protected proprietary tech although a redacted report has been issued.[13]

3.5 Digital Trees … Digital Bees

Arbor has pioneered the concept of digital ESG assets[14]. This is not some kind of nonsense marketing exercise just to make ESG awareness in the metaverse[15], where we already have a presence – web3 is a sizeable community. There are economies of scale from creating a digital ESG asset. Planting trees directly and not through an intermediary is usually not possible unless you are of scale as they demand several hectares and at least 5 years of commitment. This is out of reach of individuals, small to medium size organisations, and hardly a democratization of the ESG investment space. By breaking down the asset into affordable 'blocks' one can aggregate to meet the commitment

Arbor is at the forefront of creating green

the grower requires whilst still giving access. Of equal importance perhaps, Arbor digital assets allows all followers whether corporate or individual to attach meaning and sentiment to their particular tree(s), trace it's development and provides greater bonding.

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[11] https://www.wildcatpetroleum.co.uk/blockchain/

[12] https://www.boylefamily.co.uk/

[13] https://www.wildcatpetroleum.co.uk/downloads/rns-2426t-cceg-report-on-role-of-blockchain-in-oil-and-gas/

[14] https://www.youtube.com/watch?v=DThf1nhOJaM

[15] https://www.mimeta.life/

3.6 Arbor Refi Engine

Regenerative finance (ReFi) is an emerging financial movement that integrates social responsibility, sustainability, and regeneration into financial practices. It aims to create economic systems that go beyond traditional profit generation and focus on restoring and enhancing social, environmental, and economic well-being.

In general, ReFi utilizes digital technologies to improve the governance of common pool resources (CPRs) and employs digital monitoring, reporting, and verification (D-MRV) to track CPR utilization.

Based on the latest initiatives in blockchain technology, IoT and tokenization, Arbor Refi Engine fosters the convergence of financial interests with sustainability goals, empowering individuals to make socially conscious investment choices and drive positive environmental and social change.
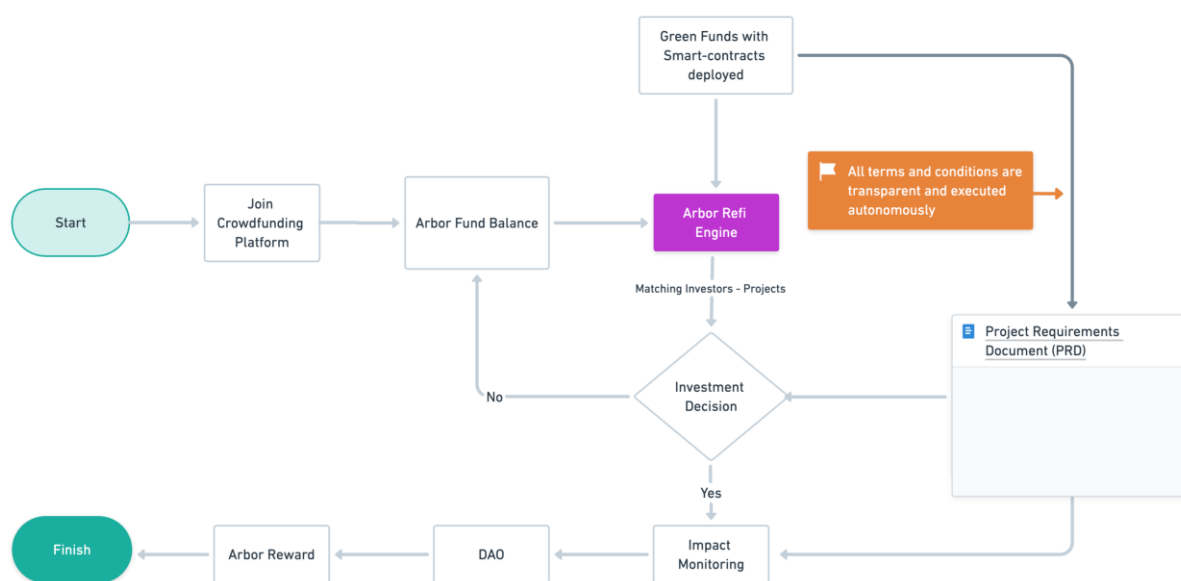
With Arbor Refi Engine, we create Blockchain-Based Decentralized Crowdfunding Platform for Green Initiatives – that could eliminate the need for centralized underwriters, allowing global investor participation directly and connect trusts among stakeholders. By deploying smart contracts, the mechanism automates the creation, issuance, and management of all funds, embedding terms like rewards, maturity dates, and distribution schedules within the code.

Tokenization on a blockchain further empowers investors. Each fund is tokenized, signifying digital ownership in fractions. For example, a tree planting project might issue tokens representing portions of the overall fundraising value, distributed to investors in exchange for their investment in the project.

These decentralized crowdfunding offerings channel invests directly towards sustainable projects aligned with the circular economy and environmental benefit. During operational time, project owners must integrate tools for monitoring the impact of projects, ensuring adherence to predetermined sustainability standards. Those impacts are quantified into single metrics (Arbor Point) using the S/E Ratio.

Decentralized autonomous organizations (DAOs) empower stakeholders, including investors and project beneficiaries, to participate in decision-making within the green fund ecosystem. By using voting powers from green community (who owning the Arbor points), DAO could enable tokenholders to vote on proposals for new sustainable projects to be financed by future fund issuances.

Eventually, the Arbor Points that generated from projects shall be distributed back to benefactors or investors as part of system rewards.

3.7 Combined 4IR Solutions

Arbor is part of a larger global ecosystem using 4th Industrial Revolution Technologies like DLT, IoT, AI, 5G and Web3 to deliver a better planet. It allows Arbor to draw on a multitude of deep tech, resources, teams across China, Vietnam, UK, USA etc within a family of co-related operations which work collaboratively under the curation of CCEG. The family continues to grow and the latest being AITEA[16], an AI deep tech company based in Beijing staffed from Alibaba, Baidu, Tencent – all bigger than Amazon, Google and X, as well as Asili Coffee Estates, a $200m coffee grower in Kenya.
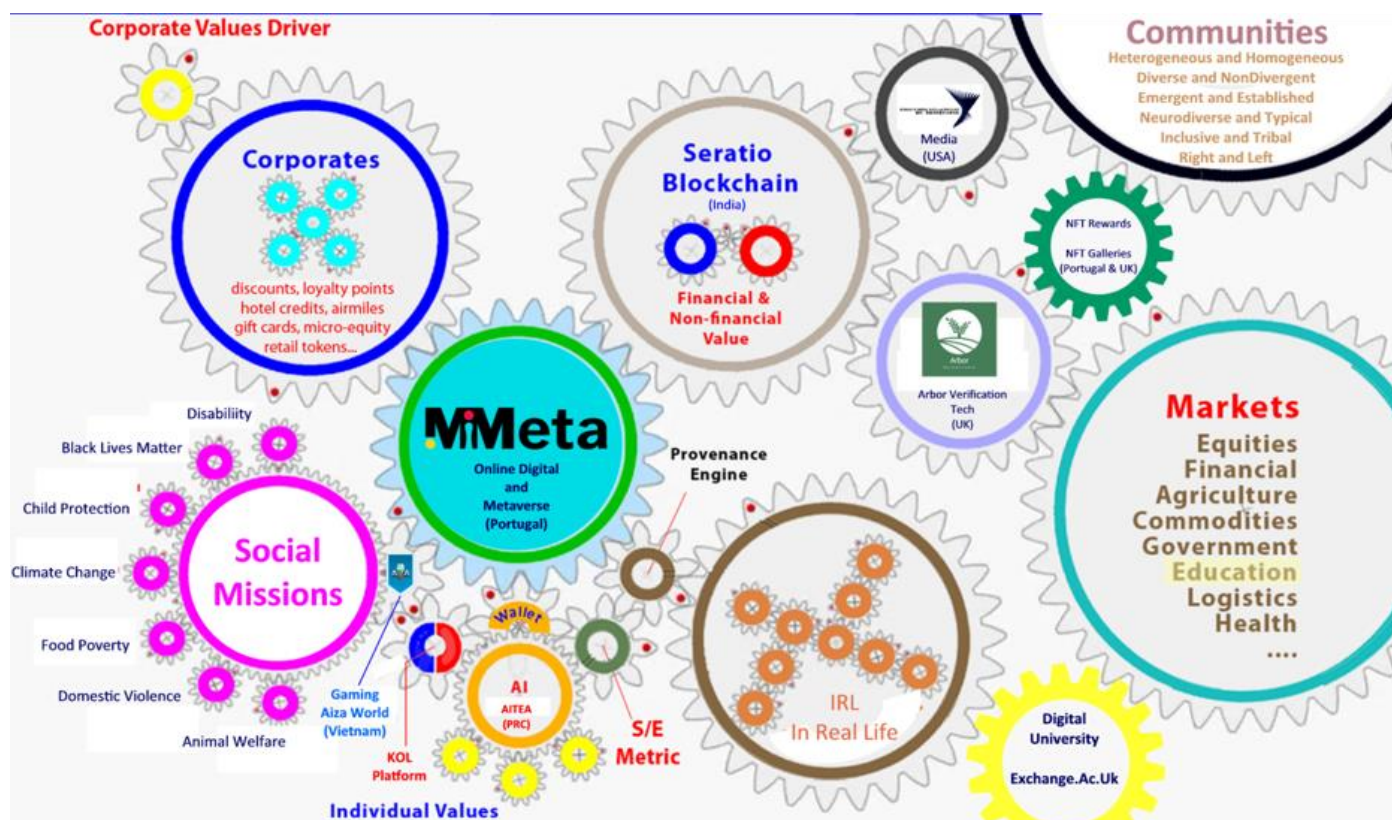
4 Partnerships and Pilots

Our focus is to establish partnerships, but with the emphasis compatible with the web3 mantra – down to the individual. For us 'small is beautiful'. This is not only compatible with democratization and decentralisation, but the figures suggest that there is greater impact with the involvement of discrete partners than several huge conglomerates. In this respect Arbor is both a b2c and b2b operation – addressing either end of the ecosystem that has been identified

Our partners need to agree just one thing, that love should drive a better world and should be measurable, transactable and deliverable. It is an intuitive ideology. We are not alone in this belief but perhaps our focus is to

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[16] https://aitea.cc/

operationalise goodness at scale using 4IR tools. For example, we recently came across GEIA[17] which may lack our rigour and provenance but the basic belief is the same and mirrors the use of blocks, what they call "geoblocs"[18] to build a connection. We continue to experiment at the local, national level to test our fundamentals at grassroots level within the community. It is important, however, that we do not dilute the simplicity and goodwill from honest sustainable practice by introducing 4IR technology which creates a mistrust. We intend to broaden internationally once the learning from the following pilots has been absorbed.

4.1 Asili Coffee Estates

Asili Coffee Estates[19] is a US$200m coffee grower in Kenya who intends to disrupt the mature coffee market by developing a disintermediation of the supply chain by directly connecting the consumer across the entire value chain through their ESG sentiment. This unique differentiator will strengthen their brand to give demand pull whether they use the normal low margin supply chains or be the preferred coffee that satisfies burgeoning consumer alignment for not just tasting good – but doing good. Through the Asili app, downloaded whether through an Asili packaging QR code or social media promotion, they want to be ever present in the consumer mind with a host of delivery agents, even when no coffee is being consumed, leading not only to secondary markets but a large uplift in Asili valuation. Targeting Gen Z and Gen X consumers through TikTok and other social media they will become a vibrant active brand that disseminates not just coffee but other products that represent 'good', synonymous with the direction of travel in today's world. They will no longer have the 5-8% value chain glass ceiling of a typical African coffee grower, but will be able to participate in the higher margins (22% retailer) enabled by consumers' direct intervention through Asili tech and brand

4.2 Wildcat Petroleum Plc

Wildcat Petroleum Plc[20] is a quoted company on the full London Stock Market involved in gas and oil exploration. From the outset the company set its table out to be a blockchain business to deliver ESG values through DLT whilst serving the needs of their shareholders. It is currently negotiating a deal in Sudan.

4.3 Planetzero.earth

Planetzero.earth[21] is a dynamic and innovative consultancy firm located in Ho Chi Minh City, Vietnam with a German parent company. The company focused on fighting climate change. They offer training and workshops on greenhouse gas reduction and sustainable practices. Their core service is developing and implementing carbon capture projects. Planetzero.earth's approach is based on biochar, a charcoal-like material made from organic waste. Biochar captures carbon dioxide from the atmosphere and stores it permanently in the soil. The company uses various organic materials like bamboo and sewage sludge to create biochar, promoting waste reduction alongside carbon capture.

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[17] https://www.geia.ie/
[18] https://geoblocs.com/
[19] https://asiliestates.co.ke/
[20] https://www.wildcatpetroleum.co.uk/
[21] https://planetzero.earth/

4.4 U2U Chain

U2U Chain[22] is building a collaborative Web3 ecosystem that unites developers, creators, marketers, and users. Their goal is to leverage the power of Web3 to expand the reach and impact of proven business models and products. They empower innovators by providing a platform to submit ideas and proposals. Approved projects receive support in the form of resources, funding, and marketing from the U2U community. This incubation model is further strengthened by the participation of external contributors who can actively shape and build projects, sharing in the resulting success. Their unique approach combines centralized project incubation with the decentralized power of collaboration. This fosters an environment where ideas are nurtured into real-world projects with the active involvement of users, builders, and stakeholders from the very beginning. By joining U2U Chain, innovators can shape the future of Web3 in a collaborative and impactful way.

4.5 Climate Fresk

The Climate Fresk[23] is a French nonprofit organization founded in December 2018 whose aim is to raise public awareness about climate change. It proposes a collaborative serious game based on 42 cards where the participants draw a fresco, hence "fresk", which summarizes the work of the Intergovernmental Panel on Climate Change. Based on the IPCC report, it explains how and why the climate changes at the current pace and the consequences of its disruption. It gives participants the opportunity to learn a lot in a very short period of time for both novices and experts. As of 2023, over a million people have participated.

4.6 Green Happiness

Green Happiness[24], a community program by the Song Foundation, tackles Vietnam's environmental challenges. Launched in 2018, it focuses on tree planting to increase urban green spaces and restore forests. By encouraging community participation, Green Happiness aims to raise awareness of environmental protection and promote sustainable practices. In Soc Trang area, Green Happiness has completed planting 28.5 hectares of mangrove forest (equivalent to 125,400 trees); with Ninh Thuan area, 84 hectares of forest (equivalent to 109,232 trees) have been planted on the rocky mountains. In addition, Green Happiness has also built and put into use 2 parks, conducted experiments and scientific research to contribute to increasing the project's effectiveness and transferring technology related to planting and forest care to the locality.

4.7 AltyDeri

AltyDeri[25] This is a small private fledgling community land sustainability project in Wales set only on 3 acres which will look at whether the Arbor App is a hinderance or beneficial to small ESG projects. It will prove as a test of relevance at the small end of the scale, and how it may be improved in doing so. The land is being used for no-dig–no-till, bee keeping, chickens and ducks, allotment, fruit trees, animal husbandry, rehab, etc all on a micro scale amongst a dedicated but enthusiastic group.

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[22] https://u2u.xyz/
[23] https://climatefresk.org/world/
[24] https://song.org.vn/
[25] https://www.facebook.com/groups/983575046527533/

5 Founders

Dinh Thong BSc MSc (Founder)

He is motivated from a desire to understand how we can design innovative business models that leverage nature and environmental protection to generate financial value - this approach, in turn, can incentivize investments in projects that generate positive societal and environmental impact. Dinh has previously led the tokenomics team to build up incentive engineering at Aiza World, developing the token metrics and DAO mechanism, and founding the "Loan for Play" scheme with risk management solution and financial statements; he led a US$ 1.5m fundraising campaign for this NFT Gamify project. He is a masters from a UK university, and has over 8 years of international experience in Product Development and Project Management across various sector in the UK, Japan, India and Australia. He is an expert in Fintech, Regenerative Finance (ReFi) and Blockchain Technology – an alumni of the prestigious Frankfurt School Blockchain Center. He is a Fellow of the European Carbon Offset Tokenization Association (ECOTA) and acts as the country host for Token Engineering Academy in Vietnam.

Olinga Taeed PhD FIoD (Chair)

He is Director of the Centre for Citizenship, Enterprise and Governance, the world's leading not-for-profit think tank on the Movement of Value with over 220,000 members. He is Expert Advisor and Council Member of the Chinese Ministry of Commerce's 'Blockchain E-Commerce Committee'. He was the world's first blockchain professor at Birmingham City University, and is Chief Editor of Frontiers in Blockchains (Switzerland), a peer review academic journal with 400+ editors. He is Chair of MiMeta.Life (Metaverse - Lisbon), Bureau of Media Data and Ideology (Media – New York), and AizaWorld (Gaming – Hanoi). Most recently he was appointed Chair of AITEA (AI - Beijing) populated by staff from tech giants Alibaba, Baidu and Tencent, and Executive Chair of Asili Coffee Estates, a US$200m ESG project in Kenya. He has spoken at The Vatican which attributed him with the "God Metric – the fastest adopted social impact metric in the world", and is Advisor to Wildcat Petroleum Plc, a London Stock Market listed company.

6. Appendix I: Leaflet

Our Mission

We help Green Warriors to protect the Environment with Fun and Benefits

Arbor Verification Tech

Twinning Digital Online with In-Real-Life: Connecting Fact with Emotion

Verification is the new tech frontier and required across multiple industries. With the burgeoning of digital online through gaming, metaverse, etc this creates challenges and opportunities In-Real-Life (IRL) as we twin these worlds. The future is here now, with fake news, fake products, fake vendors, fake customers, fake reviews, fake currency all sold by deep fakes; the Arbor verification system is the only cross sector solution.

How It Work

Business

ESG Investment From Business → Arbor Token Swap into tokens Leverage Impact

Funding Green Projects ← Voting Engine ↑ Green Consumer DAO

" Where Consumer Voice touches ESG Investment "

Individual

ESG Donation → Participate Green Activities → Arbor Token Tokenize by Arbor & Reward by NFT Machine → Green Consumer DAO

" Earn Privileges, Personalize Green Journey, Raising Your Voice - All in One Point "

BRANDS

Wildcat Petroleum · Efficiency Exchange · MMeta · UN Blockchain Lab · Sustainable Development Goals

PRODUCTS

- Arbor Tree
- Arbor Bee
- Arbor Token
- Arbor ID
- Arbor Certs
- Arbor Impact

SECTORS

ESG
Metaverse
Social media
Retail
Digital Univesity

REGIONS

VietNam
UK
Europe
SEA
China
USA

EARTH

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Let's Start!

Arbor

Arbor

YOUR REAL **FOREST** **IN** YOUR POCKET

Let's Start!