

ThingsGo.online

The online value of Sustainability











A global, decentralized rewards ecosystem for sustainable attitudes and projects.

by ThingsGo.Online Founders

Disclaimer:

1. This is a preliminary description of the TGO project, while the initial concepts should not be changed, later versions of the white paper will detail all aspects, including the legal and economic ones, of the project;
2. This document does not constitute nor implies a prospectus of any sort. No wording contained herein should be construed as a solicitation for investment. Accordingly, this White Paper does not pertain in any way to an offering of securities in any jurisdiction worldwide whatsoever. Rather, this White Paper constitutes a technical description of the functionality of the ThingsGo.Online ecosystem. Please review the legal section at the end of this White Paper.
3. White Paper last updated in December, 2021.

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The ThingsGo.Online Ecosystem

Version 0.1

1. Introducing the ThingsGo.Online Initiative

1.1 Sustainability

With the increasing focus on socially and environmentally responsible companies, it is increasingly becoming apparent that a company thriving in a changing world would have to integrate sustainability issues. Therefore, the concept of Sustainability has gained significant attention and investment from global organizations and government from the last years, and this topic is likely to be a strong determinant in the course of future economies. Considering the increasing demand from the society, countries are more likely to make economic policies that are tied to the environment. Sustainable Investing is a form of investing that aligns investment analysis and asset allocation with environmentally & socially responsible activities and projects to yield long-term sustainable returns. Several factors point to the long-term returns from sustainable investing, when compared to conventional financial investment. In that way, companies are increasingly shifting away from quarterly reports and board meetings that only focus on the company's finances to those that incorporate environmental and social measures, as a way of improving performance and reducing risks in the long term.

1.2 The Online Value of Sustainability

Faced with a scenario where Sustainability is at the center of attention at a global level, many so-called sustainable initiatives arise and, with them, two problems: how to reward legitimate initiatives and how to avoid that vague or even dishonest initiatives are also rewarded? These two symmetrical points are vital to encourage people to have sustainable attitudes in general, while avoiding merely speculative actions or actions with no real impact. In summary, a global, decentralized rewards ecosystem for sustainable attitudes and projects must be established. In that sense, Things Go Online came to solve both points, creating a safe and auditable rewards environment. However, how does a sustainable attitude or project generate value on the internet through the ThingsGo.Online ecosystem? To achieve this goal, making Sustainability become something tangible, TGO is based on a tripod: a measuring device; a measurement authentication ecosystem; and an external authenticating authority. Thus, the TGO value stream can be summarized as follows:

1) Sustainable actions that generate tangible value are measured by TGO's measuring device;

a) The TGO device can be:

i) A dedicated hardware;

ii) A mobile app;

iii) An embedded system, integrated into a land, air, naval, or space system or craft;

b) The TGO device is properly authenticated by another device and authentication method (patent pending), which ensures that, in addition to being calibrated, its measurements are reliable.

2) The measurement device issues a Token equivalent to the sustainable attitude measurement. For example, a TGO device measures the energy produced by a photovoltaic solar energy generation grid and emits tokens called KWH, which are equivalent to the energy produced by this grid.

3) The TGO device is configured to send the tokens to the TGO address on the XRPL network. This transaction is double signed by a single account that identifies the device (hardcoded) and the user account that owns the device.

4) The TGO address receives the sustainable attitude measurement tokens (KWH in this example) and sends in exchange an equivalent amount of TGO utility tokens that can be traded directly in the decentralized brokerage of the XRPL network.

a) Only XRPL addresses associated with accounts in Global.id are enabled to receive TGO tokens. Thus, a sustainable attitude/project is considered enabled when its measurement tokens are issued by an XRPL address that is verified against an identity registered in Global.id;

b) The addresses of projects eligible to receive TGO tokens are approved by the TGO (Decentralized Autonomous Organization - DAO) community, which organizes and meets using the Global.id platform.

c) The enabled projects prove through evidence (videos, photos etc) that the TGO device is measuring the actual declared system, as it is. Example: if the TGO device measures a photovoltaic system, videos of the device being installed in the photovoltaic system must be provided, showing the brand and model of its inverter etc.

d) An Independent Certifying Authority, through a specific process, certifies that the proofs listed in (c) are enough for enabling the project or attitude.

5) By using authenticated physical measurement associated with independent certification, TGO avoids Greenwashing, being therefore an ecosystem that registers, authenticates and audits actions, providing a solid basis for both the monetization of actions and for the concept of Sustainability itself.

In this way, TGO provides a validation ecosystem for sustainable attitudes and projects, delivering greater security and transparency for Sustainability actors and investors.

2. Mission, Vision, Core Values, Competences

2.1 Mission

Create Internet Value for Sustainable Projects and Attitudes. Our goal is to become the main global, decentralized rewards ecosystem for sustainable attitudes and projects. We aim at bringing innovation to the traditional market of environmental impact mitigation, such as carbon credits and carbon markets.

2.2 Vision

Our vision is to engage and make it easy for every person and companies of all sizes to account for and mitigate their environmental and social footprint, by running, working on, or supporting sustainable projects and sustainable attitudes.

2.3 Core Values

- **Innovation:** TGO brings innovation to the socio-environmental impact compensation markets through an exclusive model that brings flexibility, accessibility and greater reliability to the monetization of sustainable attitudes and projects;
- **Sustainability:** in order to achieve sustainability we must balance economic, environmental and social factors in equal harmony. To account and support global-wide sustainable projects and attitudes we've designed the ThingsGo.Online ecosystem;
- **Trust:** True collaboration can only exist in an environment of trust. The TGO working environment is open, honest, collaborative, and community oriented. Our team feels comfortable and confident to take risks, and trust their ideas will be well received. The team members do not undermine one another, nor do they try to take credit for others' ideas and work;
- **Creativity:** Team members are sources of new ideas, fueling better solutions. TGO embraces

- **Community:** The TGO ecosystem is designed to be community-driven, based on service, on participation, and on interactions. We put in time, energy, ideas and money, going toward the goal of helping the community thrive;

2.4 Competences

Our core team excels in sustainability, economics, hardware/software engineering, and in Research, Development, and Innovation (R&D&I).

3. Tokenization

3.1 The concept

The concept of tokenization has existed since the first currency systems emerged centuries ago as a means to reduce risk in handling high value financial instruments, by replacing them with surrogate equivalents. In the physical world, coin tokens have a long history of use replacing the financial instrument of minted coins and banknotes. In the digital world, similar substitution techniques have been used since the 1970s as a means to isolate real data elements from exposure to other data systems (“Tokenization (data security)”).

Therefore, we can conclude that the world already works with digital assets for some time. The difference is that Blockchain and Distributed Ledger Technologies (DLT) allow for greater decentralization of the custody, compliance, transaction, verification, and control processes of assets by the involved parties.

The term “Blockchain” has become so generic that it can be confusing sometimes. Other related common terms like tokens, coins, cryptocurrency, they all are considered as one thing by most people. However, they all have their own functionality, which differs from each other. Tokens are of few types, such as: utility tokens, security tokens, collectible tokens, reward tokens, assets tokens, currency tokens, NFT, etc. A Non-Fungible Token is a unique type of token and a collectible token (Sharma).

One can say that blockchain is a type of distributed ledger. Distributed ledgers use independent computers (referred to as nodes) to record, share and synchronize transactions in their respective electronic ledgers (instead of keeping data centralized as in a traditional ledger). Blockchain organizes data into blocks, which are chained together in an append only mode (WORLD BANK).

3.2 The opportunities

As digital transformation becomes even more important it urges to identify opportunities for economic, social and environmental improvements. Tokenization and digital assets have emerged as one such opportunity, modernizing the financial system infrastructure and also improving existing capital markets by providing new platforms, improving access to funding and credit facilities, tokenizing assets to unlock liquidity, and creating new opportunities for both issuers and investors (Al Muhairi et al.).

Within the context of blockchain and distributed ledger technology (DLT), tokenization is the representation of a particular asset through the issuance of tokens representing fractional shares of the underlying asset, making them applicable to virtually all industries for a variety of different purposes – from raising capital to fractionalising assets to unlocking liquidity and value (Al Muhairi et al.). Like a redeemable coupon, a token can represent a share of any tradable asset, such as equity, debt, real estate, commodities, and more.

Over the past years, tokenization has been steadily gaining traction as a means of modernizing financial market infrastructure and creating new investments. There are numerous benefits of tokenization, one of them is the ability to help Small and Medium Enterprises (SME) receive the capital needed from a wider range of investors and, on the other side, allow investors to diversify their portfolios; its versatility allows tokenization to be applied across different sectors, from real estate to investing in fine arts, to restructuring debts and also to support low-carbon and climate-resilient growth, ensuring that those processes are secure, transparent, auditable, and integrated with other digital channels such as e-KYC/AML for investor onboarding (Bin Touq et al.).

3.3 Utility and Reward Tokens

A Utility Token is defined as a digital asset that enables future access to products and services offered by an organization through its network. Utility tokens, unlike security tokens and shares, don't provide the rights of ownership over a part of a company, neither were created as an investment. Utility tokens are a form of digital assets created for spending within a particular blockchain ecosystem (ETORO).

Utility tokens can be used to create unique incentive mechanisms that enable people to perform unique actions within the ecosystem knowing they will be compensated. One good example is a model that engages people to use renewable energy, tracking the data and reporting it using IoT devices and they receive tokens as compensation through the blockchain (ETORO).

4. ThingsGo.Online Ecosystem

4.1 Blockchain and Distributed Ledgers Technologies (DLT)

4.1.1 Blockchain and DLT

A blockchain is a type of database that takes a number of records and puts them in a block (rather like collating them onto a single sheet of paper). Each block is then 'chained' to the next block, using a cryptographic signature. This allows block chains to be used like a ledger, which can be shared and corroborated by anyone with the appropriate permissions (Government Office for Science).

A distributed ledger is essentially an asset database that can be shared across a network of multiple sites, geographies or institutions. All participants within a network can have their own identical copy of the ledger. Any changes to the ledger are reflected in all copies in minutes, or in some cases, seconds. The assets can be financial, legal, physical, or electronic. The security and accuracy of the assets stored in the ledger are maintained cryptographically through the use of 'keys' and signatures to control who can do what within the shared ledger (Government Office for Science).

4.1.2 The XRP Ledger

The XRP Ledger (XRPL) is a decentralized, public blockchain led by a global developer community. It's fast, energy efficient, and reliable. With ease of development, low transaction costs, and a knowledgeable community, it provides developers with a strong open-source foundation for executing on the most demanding projects—without hurting the environment (XRPL Foundation).

These unique properties, such as its fast and efficient consensus algorithm and censorship-resistant transaction processing, are attracting thousands of developers building innovative projects and applications across blockchain use cases, including tokenization of assets, online gaming, asset custody, NFTs, and DeFi.

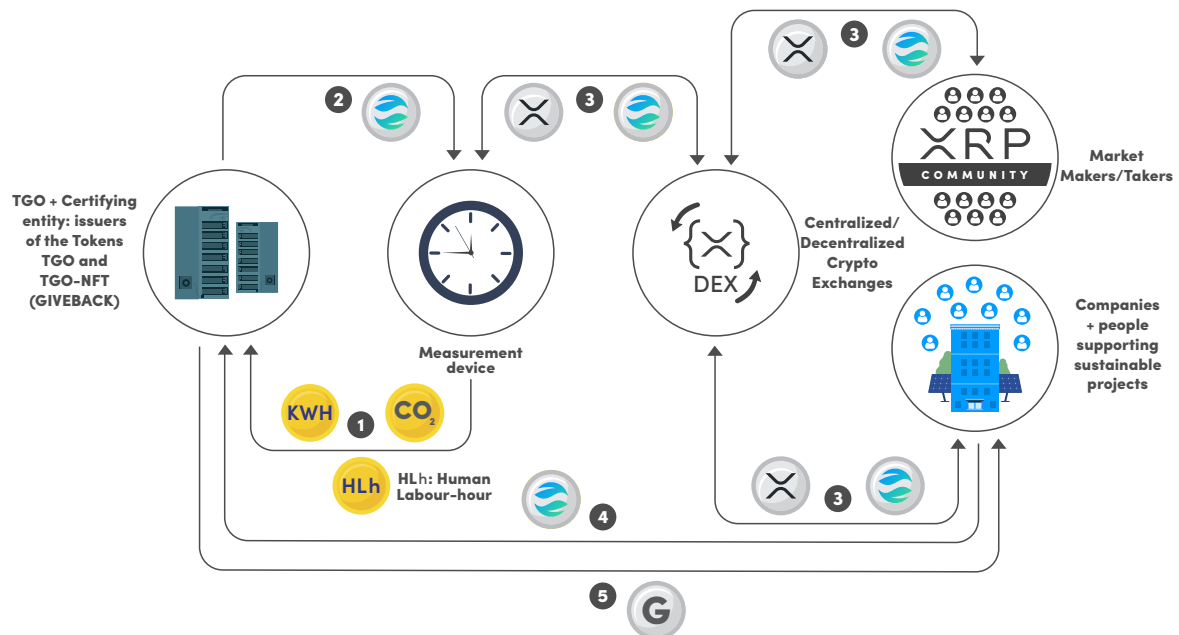
XRP Ledger's innovation relies on the shared community experience of builders and is maintained by independent participants of a global "XRP Community," of which the US-based Global Company Ripple is one of the active members. Independent validator nodes come to an agreement on the order and validity of XRP transactions. This agreement, called consensus, serves as final and irreversible settlement. The ledger reaches consensus on all outstanding transactions every 3-5 seconds, at which point a new ledger is issued. Anyone can be a validator, and active validators on the ledger today include universities, exchanges and financial institutions (Ripple Company).

XRP Ledger has a built-in Decentralized Exchange (DEX) with an already relevant liquidity market, mostly based on pairs where the XRP is the base coin. All that said, XRP Ledger is the very first Blockchain/DLT technology choice to develop and run the TGO ecosystem.

4.2 ThingsGo.Online Technology

4.2.1 Blockchain and DLT

In order to present the information about the TGO architecture quickly, clearly and a better visual understanding the TGO reward ecosystem is described in the infographic below:



- **1:** IOT devices measure the sustainable projects/attitudes and send their issued token (KWH,CO₂, HLh, etc) to the TGO certified XRPL address.
- **2:** The TGO certified XRPL address sends back (swap) TGO tokens to the project/attitude XRPL address.
- **3:** TGO Trading (Buy and Sell Ordres).
- **4:** Companies + people buy the TGO token in the Exchange and send it back to the TGO issuer.
- **5:** The TGO Certifying entity issues the TGO-NFT (named GIVEBACK) and sends it back to the companies + people, certifying the sustainability value supported by them.

4.2.2 Giveback™: The NFT-Token of the TGO Ecosystem

Giveback™ is a concept and a tool by which individuals or companies may retribute, or giveback, their social and/or environmental footprint to the society. In the TGO ecosystem this concept is materialized as a non-fungible token (NFT), providing a way to certify the financial support of individuals or companies to sustainable projects/attitudes. Giveback™ is a Trade Mark of Biotecam, one of the companies that supports TGO.

GIVEBACK™

5. The Certifying Authority

Right now, the TGO founder companies are defining the terms of the certification process with a non-profit, global certification authority. However, given the Non Disclosure Agreement signed with this authority, we cannot anticipate these terms before they are fully negotiated. As soon as possible this partnership will be announced, and the terms will be introduced to TGO's community.

6. Tokenomics

6.1 The opportunities

TGO is a utility and reward token used to reward sustainability attitudes and projects registered in the XRP Ledger. Its main utility is to be swapped for the tokens issued by the TGO's universal measurement devices, which in turn is responsible for measuring and accounting for sustainable projects/attitudes.

6.1.1 Properties

Like other tokens in the XRP Ledger, TGO is freely transferable and tradable on the XRP Ledger, meaning you can send it to other users or trade it against other tokens. The issuing account has been permanently locked and it can never freeze any TGO holder or issue more tokens.

Token name: ThingsGoOnline

Currency Code: TGO

Issuing account: rTGoNeK6vpu28U2oE5tiqhH3x8z2jBhxv

Total supply: Fixed 1,000,000,000 TGO (1 Billion)

6.1.2 How to get TGO token

- Participating in the global reward program measuring and accounting for sustainable projects/attitudes;
- Being a local supporter of TGO ecosystem;
- Participating in giveaway campaigns by joining TGO community group at Global.id, Telegram and discord channels and also following us at twitter. The link for these social medias can be found at our webpage (<https://thingsgo.online>);

Ps1: Future giveaways will require an XRP Ledger account (address) verified by Global.id;

Ps2: To receive TGO tokens one must add a trustline to the TGO Issuing account at XRP Ledger;

- Testing new features of the TGO ecosystem;
- Acquiring TGO tokens from other users.

6.2 TGO Token Distribution

Tokenomics:

- **10%:** TEAM;
- **10%:** N-phased Airdrops (Trustline, HODLing period, Trading, verified members, etc);
- **15%:** Reserve (Partnerships, Exchange Listings, TGO community rewards, marketing, operational, etc);
- **65%:** Operational (Swap TGO for sustainable attitudes and projects issued tokens)

6.3 Team Vesting Schedule

The team distribution will occur as follows:

- **10%:** January 2022, with no specific requirements;
- **15%:** At the end of each quarter. To unlock these percentages it is required that at least the same

percentage has been already unlocked by the swapping operations of the TGO ecosystem.

6.4 Giveback™ NFT Token Information

The Giveback™ NFT token is a certificate issued for each account on XRP Ledger which sends TGO payment transactions to the TGO's Cold or Hot Wallet accounts. Sending the TGO token to the Cold Wallet means to burn that amount forever, since this is a blackholed wallet. On the other hand, sending the TGO token to the hot wallet will recirculate the token in the TGO reward ecosystem economy, as is from this wallet that the TGO ecosystem swaps measurement and TGO tokens. More information on the Giveback NFT issuing mechanism will be supplied in future versions of this whitepaper.

7. Value proposition

Faced with a scenario where Sustainability is at the center of attention at a global level, many so-called sustainable initiatives arise and, with them, two problems: how to reward legitimate initiatives and how to avoid that vague or even dishonest initiatives are also rewarded? These two symmetrical points are vital to encourage people to have sustainable attitudes in general, while avoiding merely speculative actions or actions with no real impact. In summary, a global, decentralized rewards ecosystem for sustainable attitudes and projects must be established.

In that sense, "Things Go Online" is an initiative founded by a multi-company consortium partnering to create a global blockchain-based ecosystem to solve both points, providing a safe and auditable rewards environment, to **"Create Internet Value for Sustainable Projects and Attitudes."** Its goal is to become the main global and decentralized rewards ecosystem for sustainable attitudes and projects, bringing innovation to the traditional market of environment impact mitigation, such as carbon credits and carbon markets, and making it easy for every person and companies of all sizes to account for and to mitigate their environmental and social footprints, by running, working on, or supporting sustainable projects and attitudes.

8. Roadmap

8.1 Milestones

Q4-21:

- First version of the TGO website;
- Blackholing the TGO issuer account address;
- First Trustline-based TGO-token's AirDrop;
- Writing and Publishing the first version of the white paper, describing the TGO ecosystem and proposed value.

Q1-22:

- Updating the white paper;
- Launching the new TGO website;
- Integration of our universal IOT measurement device with XRP Ledger;
- Launch the second AirDrop campaign;
- Launch of the first real use case of the TGO ecosystem: measurement and online value creation for a sustainable project already in operation;
- Sign up of the international partnership for certification of the TGO ecosystem;
- Start the procedures to list the TGO Token in a centralized exchange;
- Design the TGO-NFT token, named GIVEBACK™.

Q2-22:

- Launch the GIVEBACK™ NFT Token allowing people and companies to swap TGO and GIVEBACK™ tokens;

- Integrating Global.id and Xumm KYC verification into the process of certificating the measurement and accounting of sustainable projects and attitudes
- Integrating XRPL Hooks feature to automate the TGO-Measurement Token swap process.
- Launch of the TGO APP;

9. Supporting Companies

TGO is currently supported by a group of four companies that have been working together on different technology projects for sustainability:

Biotecam: specialized in sustainable solutions based on biotechnology;

ENELTEC: hardware & embedded software, automation;

LRGE Systems: information & embedded systems

TAC Consulting: product & project management, innovation management.

10. Legal Disclaimer

The information provided on this document and website does not constitute investment advice, financial advice, trading advice, or any other sort of advice and you should not treat any of this website's content as such. The purpose of TGO is to support the Sustainability Registry Ecosystem proposed by the ThingsGo.Online and not for speculative purposes. Acquiring TGO does not grant any right or influence over any project or company.

11. References

1. Al Muhairi, Mariam, et al. Tokenisation and Digital Assets: A Transformative Approach Towards Investments. Edited by United Arab Emirates (UAE) Centre for the Fourth Industrial Revolution. Nov 2020, <https://www.dubaifuture.ae/wp-content/uploads/2020/11/DFF-Tokenisation-and-Digital-Assets-Report-Eng.pdf>.
2. Bin Touq, Abdulla, et al. "Digital tokens could transform the economies of the Middle East and North Africa - if the governance keeps up." Global Technology Governance Summit, World Economic Forum, Apr 2021, <https://www.weforum.org/agenda/2021/03/digital-tokens-could-transform-the-economies-of-the-middle-east-and-north-africa/>.
3. ETORO. "What Is a Utility Token?" eToroX, <https://etorox.com/blockchain-academy/what-is-a-utility-token/>. Accessed 18 December 2021.
4. Government Office for Science. "Distributed Ledger Technology: beyond block chain." GOV.UK, 2016, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf. Accessed 6 December 2021.
5. Ripple Company. "How Does the XRP Ledger Work?" Ripple, <https://ripple.com/xrp/>. Accessed 6 December 2021.
6. Sharma, Toshendra Kumar. "Security Tokens vs. Utility Tokens : A Concise Guide." Blockchain Council, 6 September 2019, <https://www.blockchain-council.org/blockchain/security-tokens-vs-utility-tokens-a-concise-guide/>. Accessed 6 December 2021.
7. "Tokenization (data security)." Wikipedia, [https://en.wikipedia.org/wiki/Tokenization_\(data_security\)](https://en.wikipedia.org/wiki/Tokenization_(data_security)). Accessed 6 December 2021.
8. WORLD BANK. "Blockchain & Distributed Ledger Technology (DLT)." World Bank Group, 12 April 2018, <https://www.worldbank.org/en/topic/financialsector/brief/blockchain-dlt>. Accessed 18 December 2021.
9. XRPL Foundation. "The XRP Ledger." Home - XRPL.org, <https://xrpl.org/>. Accessed 6 December 2021.



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