

"The real-estate market has a major underlying issue no one notices unless being specifically told. On top of being very opaque in places, it is highly centralized. So is its data, thus being exposed to dramatic losses waiting to happen. At Etherland, we plan to solve the issue by bringing a new extremely sane storage solution to the whole industry. We are set to shake the world."

Alexis BRAND
CEO of Etherland

SAVING REAL-ESTATE FROM OBLIVION

Mission

Saving the real-estate from oblivion and granting users critical decision-making information. The Estatepedia stores and tracks ownership history, renovation works, deeds, EPCs, norms, etc... of every registered property. It makes every participant a direct actor in data preservation and grants the user power over his own data.

Ethereum and IPFS work together to achieve this feat. Our Ethereum smart contract acts as the ledger for major transactions and changes, while IPFS acts as the store of data tied to and stamped by it.

Furthermore, as we fill the Estatepedia, we are changing the real estate industry to make it a natural hedge against crisis and inflation, removing the administrative hassle and horrendous delays, thus increasing fungibility.

Vision

Making every actor a direct player in curating and adding data to a publicly available and secure register, which they can use in an obvious and easy way while making sure the transition happens smoothly without compromising information quality. It has been proven to be the most efficient method to solve the industry's inherent issues.



Blockchain
technology



Cutting edge
technology



Power to the
community



Decentralized
storage

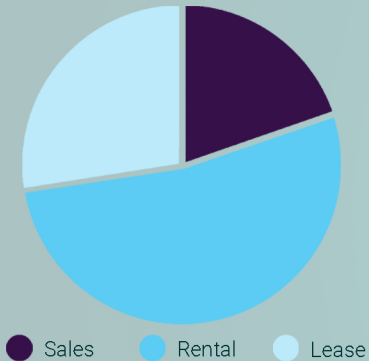
HUGE, SCARCE, STABLE AND PROMISING MARKETS

A Massive

Global Real Estate Market
Share, by type, 2021 (%)

\$3.7T

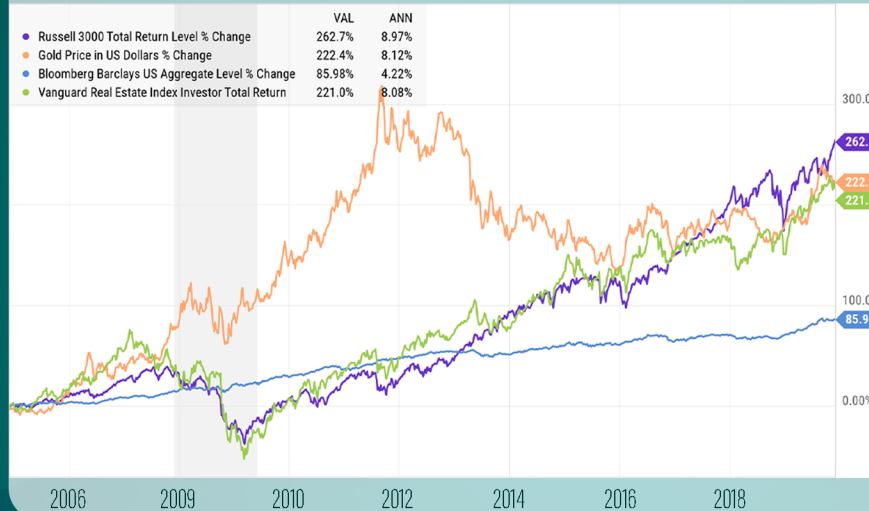
Global Market Size 2021



Source: www.grandviewresearch.com

And Steadily Growing Market

Last 15 Years



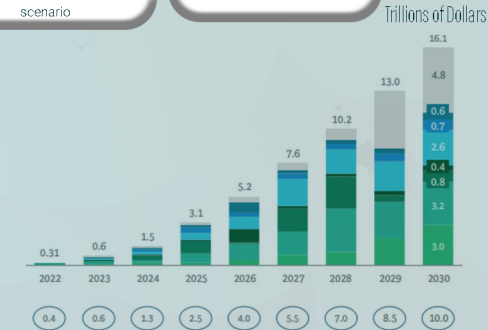
Great Hopes For Tokenization

Tokenization of global illiquid assets to be a \$16 Trillion business opportunity by 2030

Tokenized asset **potential** differs across countries due to variation in maturity of regulations and size of asset classes

Highly conservative forecast; tokenization potential of \$68 trillion by 2030 in best-case scenario

Total **tokenized market** to be **10% of global GDP** by 2030



Source: World Economic Forum - Global Agenda Council, BCG Analysis

¹ For example, Insurance policies, Pensions, Alternative Investments; ² e.g., Infrastructure Project, Car Fleets, Patents

Note: The analysis does not include crypto assets

Exhibit 5: Tokenization of illiquid assets to be a \$16 trillion worth opportunity globally

Source: <https://cointelegraph.com>

Problems

High Registration Precarity

70% of land property in developing world is officially **unregistered**.

Estimates suggest that **70% of the world's population** has little to **no access to formal land administration** systems, hence their rights are often **neither recognized nor secured** by governments.



Source: World Bank

And Extreme Ownership Disparity

Less than 1% of the population owns 70% of the land in UK.



Source: Author Kevin Chill, The Guardian 2012

In most OECD countries, **less than 5% of the population owns land**.



A SOFTWARE-BOUND MARKET WITH FLAWS

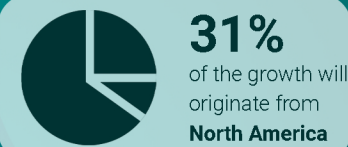
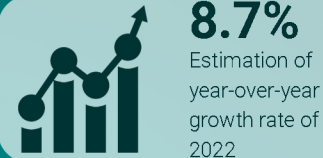
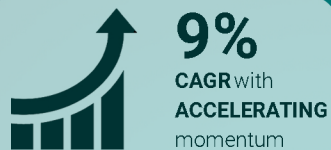
A Tech-Averse Industry

Top 15 Real Estate Technology Trends for 2022

- | | |
|-----------------------------------|--|
| 1 Buying and selling websites | 9 Mobile apps |
| 2 Real estate management software | 10 Property value estimation using AI and ML |
| 3 Virtual reality | 11 Digital twins |
| 4 Real estate CRM software | 12 Real estate crowdfunding platforms |
| 5 Blockchain | 13 Real estate Marketing automation |
| 6 Big data | 14 Drones and other high-tech devices |
| 7 IoT smart home automation | 15 Artificial intelligence (AI) |
| 8 Advanced analytics | |

Source: <https://sloboda-studio.com>

That Keeps Growing



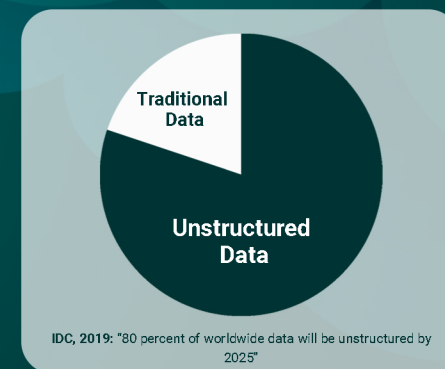
But Relying on Obsolete Storage

94% of all companies use
cloud services in some
form or another.



And Overly Exposed Data

90% OF DATA GENERATED IS "UNSTRUCTURED"
This includes tweets, photos, customer purchase
history and even customers services call logs.
Source: <https://www.pcmag.com>



One Solution: Decentralized Means Of Storage

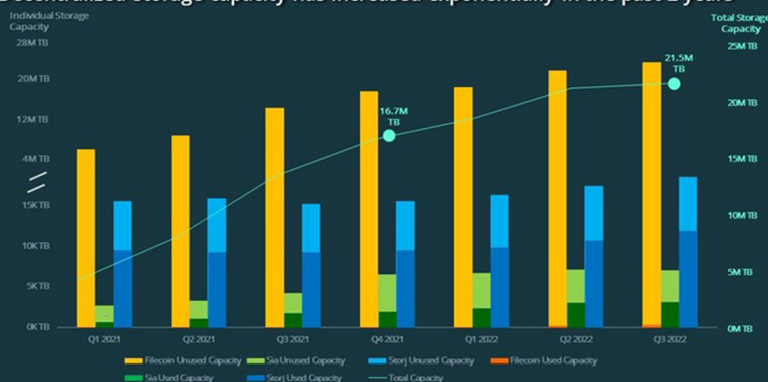
Cost of Decentralized Storage

Decentralized Trumps Centralized

Decentralized Providers	Monthly Price per TB	Centralized Providers	Monthly Price per TB
Filecoin	\$0.0002	iCloud	\$6.00*
arweave.org	\$1.09	Google Drive	\$5.00
STORJ	\$4.00	OneDrive	\$7.00
sia	\$0.94	Dropbox	\$5.00
BitTorrent File System	\$3.01	amazon drive	\$7.00*

Capacity vs Usage

Decentralized storage capacity has increased exponentially in the past 2 years



*Total capacity data includes Arweave, Filecoin, Storj, Sia, BTFS excluded due to incomplete data

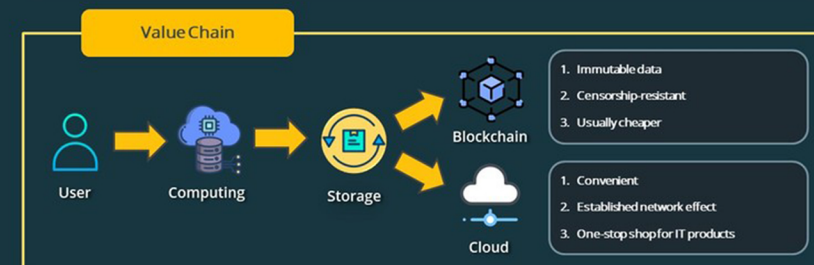
**Arweave usage is always equal to its capacity

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Looking to the future

Decentralized storage is part of the value chain of online computing

To understand where decentralized storage is headed, we must look at the bigger picture. Data storage is merely a subset of the larger **value chain of online computing**.



CoinGecko

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ETHERLAND'S SOLUTION

Like most dominant industries, real estate seeks to keep its technological edge and competitiveness at all times and all costs. However, with real estate being anchored to its traditional aspects, the room for improvement is quite narrow. Thus, every actor leans in the same direction: conquering the vast lands of technology. In real estate, this goes by integrating 3D scans, AI, Big Data, VR, and aggregating platforms, thus even more data to establish models and statistics, etc... But they don't realize that they keep adding outer layers of data onto a precarious base: unstructured centralized storage.



The real estate industry faces many challenges related to data storage, such as the risks associated with centralized storage, where data can be lost, tampered with, or not tracked properly. Unstructured data, which is stored in random places without proper labeling and routing, is also a tremendous problem.

To overcome these issues, we created our own IPFS decentralized storage infrastructure to bring persistence and content-addressing to the industry. Decentralized storage provides the redundancy and security necessary to attain persistence. At the same time, content-addressing allows easy access to every file or folder without having to know where their data is stored.

Etherland Challenges



Ownership history



Etherland guarantees a complete history of all public land data, including previous owners, transactions, and modifications brought to the data.

Transaction delays



The availability of legal documents in our storage system will drastically decrease delays by removing the hassle of finding documents we forgot we owned or the need to have them redone at legal offices.

Land double proof of ownership



All legal documents are stored in our ecosystem, only separated between public and private files. Ownership titles, for example, will be displayed in the public filesystem. Anyone can consult them, whereas construction invoices, or other more private documents, will be added by users to their private folders.

Tokenize globally



Our process is designed to maximize user adoption across the board. It was tailored to serve our intent to reach every person, business, or state. We make it possible by providing a hands-on approach where anyone can participate in building the new global register and directly benefit from the joint effort.

ETHERLAND'S FEATURES

Property acquisition

- Smoothen the process and reduces the price of property transactions with less intermediation
- Increase the value of your property thanks to extensive documentation and our grading system
- Access many opportunities easily with the interactive map and the Estatepedia

Interoperability with Professional and State actors

- Allows professional to store and keep and history of their public, business-related documents
- Enable public entities like cities or states to have more depths to their cadasters, or even provide them with our own, integrated and adapted to their needs

Decentralized storage and content-addressing

- Enables data persistence through redundancy, thus avoiding loss of critical documents
- Saves the real estate digital ecosystem from the upcoming disasters caused by enormous amounts of unstructured data

Etherland Advantages



Immutable data collection



Decentralized Autonomous Organisation (DAO)



Ease the property review process and bring transparency to industries' activities



World first solution with IPFS



Enhanced traceability



Facilitate transactions



Quantum-proof storage



Modernize the current real estate infrastructure



Ease the user onboarding process with a comprehensive hands-on utilitarian approach



Real Utility Token Ecosystem



Increase property value



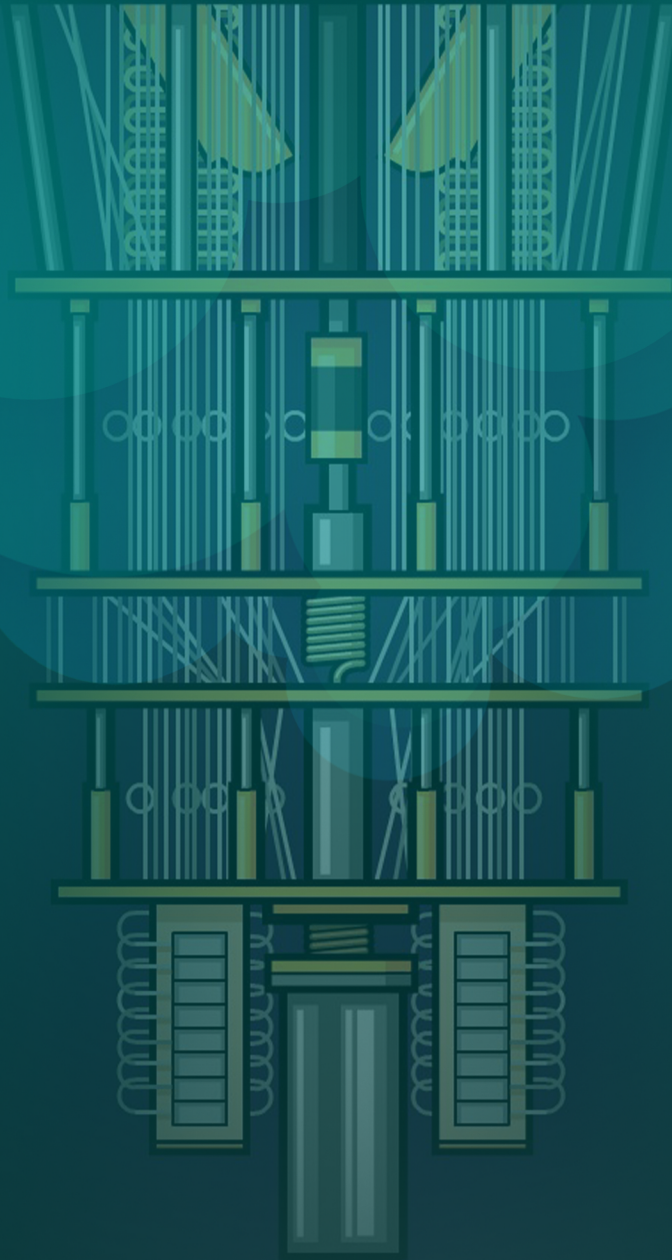
Property ownership conflicts and dispute claims are reduced

CRYPTOGRAPHIC REALITY AND QUANTUM-THREAT

In recent news, Chinese scientists claimed they had devised an algorithm for quantum computers that could crack a popular encryption protocol, 2048-bit RSA. An encryption-threatening quantum computer is around the corner if those claims are valid. It will be a disaster if the encrypted data of millions of users, including large companies, suddenly become public. It is why private companies and institutions need to accelerate their adoption of quantum-safe solutions to ensure the future of their and their user's data.

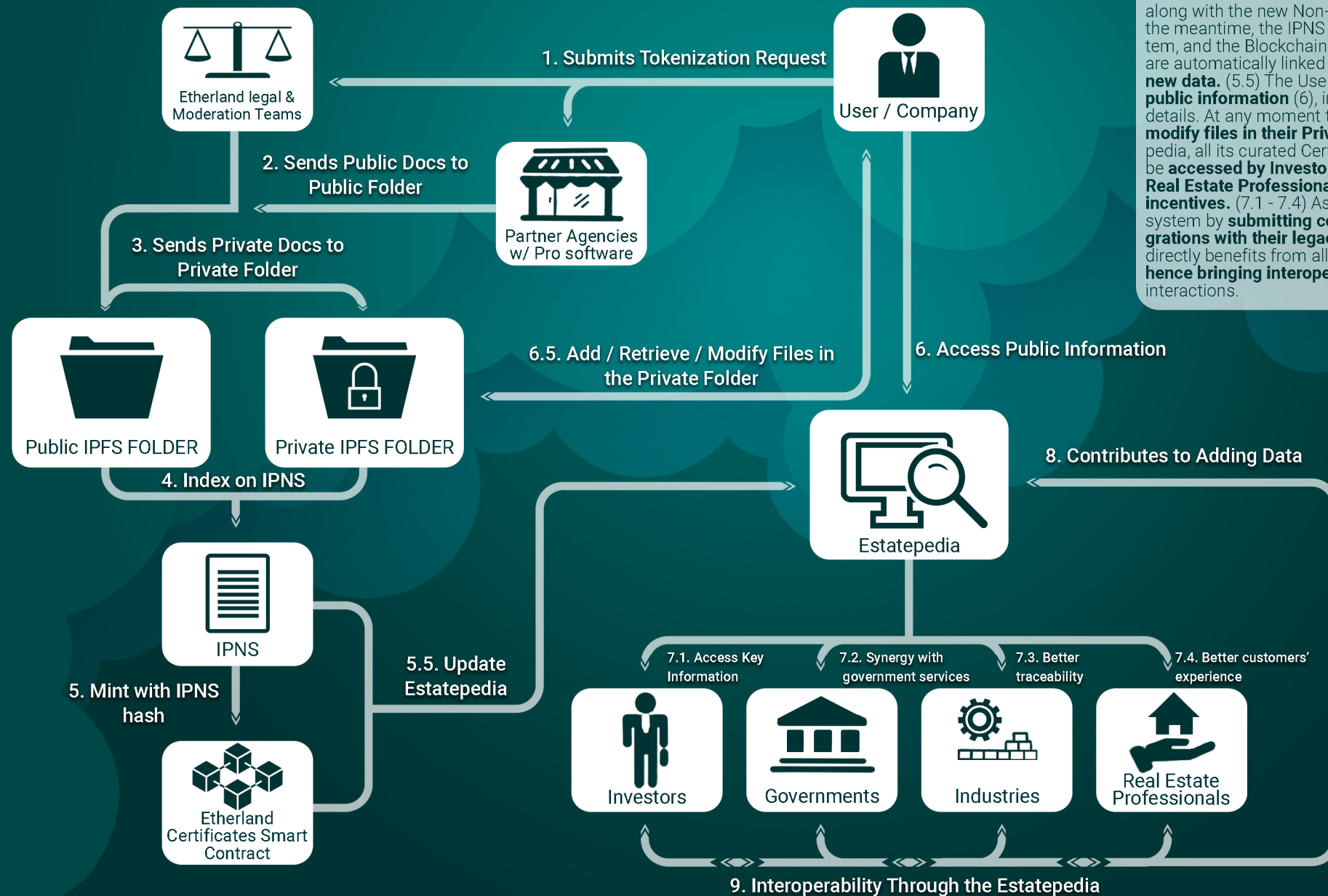
Etherland's solution to deal with this threatening technological advance is to use another just as advanced, AES 256.

AES-256 is the longest and strongest level of encryption that the AES type of encryption offers. AES-256 is believed to be quantum-resistant, like other symmetric encryption mechanisms. That means that quantum computers are not expected to be able to reduce the attack time enough to be effective if the key sizes are large enough. This is why the United States government uses AES-256 to raise encryption standards and fight off quantum computers.



ETHERLAND FUNCTIONAL DIAGRAM

A User or a Company wishes to tokenize one or multiple properties. They **submit a tokenization request** (1) to our Legal Team. Otherwise, if they went directly through one of our Tokenization Partners, they would deal directly with them through their Agencies. From there, and upon acceptance and curation, Legal Team or Partner Agencies **send out the Public** (2) **and Private** (3) docs to their respective folders. Then, an **IPNS index is created** (4), and its **hash is sent to our Certificates Smart Contract to be minted** (5) along with the new Non-Fungible Token(s)'s metadatas. In the meantime, the IPNS hash, leading to the Public filesystem, and the Blockchain data, linking to the minted NFT(s), are automatically linked to the Estatepedia, **updating it with new data.** (5.5) The User / Company can now **access public information** (6), including the grades and their details. At any moment they wish, they can **add, retrieve or modify files in their Private IPFS Folder.** (6.5) The Estatepedia, all its curated Certificates, and related data can now be **accessed by Investors, Governments, Industries, and Real Estate Professionals and used for their respective incentives.** (7.1 - 7.4) As they can also be part of the eco system by **submitting content, working with us on integrations with their legacy systems, etc.,** (8) everyone directly benefits from all actors developing the ecosystem, **hence bringing interoperability** (9) through these mutual interactions.



TARGETED USERS



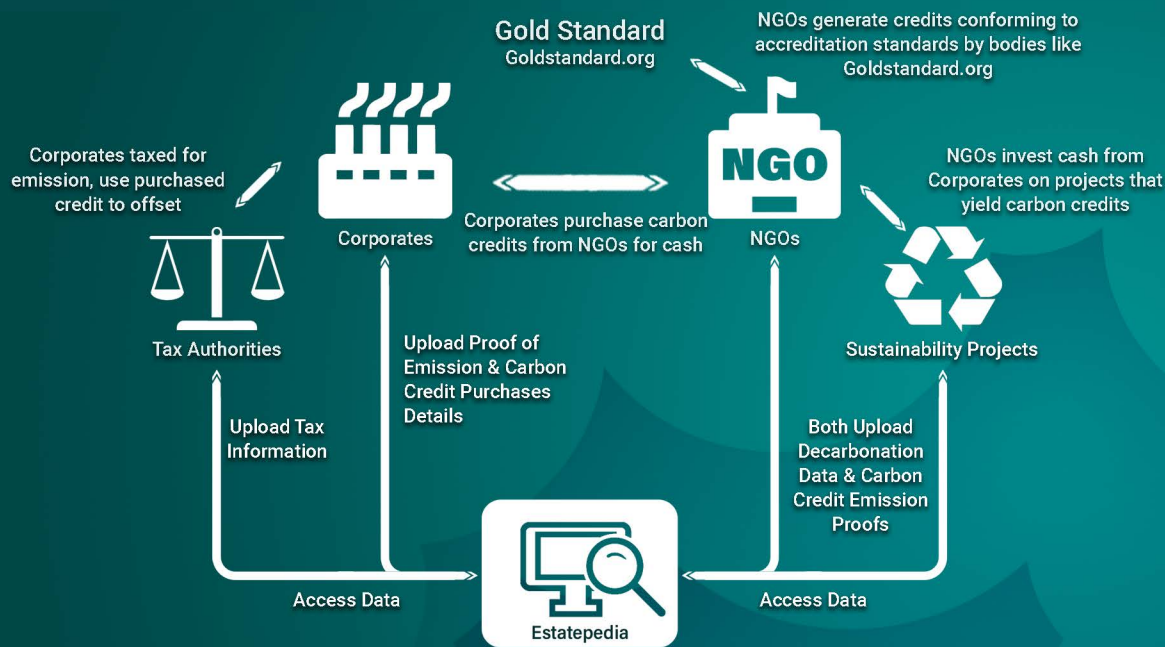
Indirect Competition

- **Real IT** : cash flows and low maintenance ownership via RealTokens.
- **Propy** : make the closing process faster, easier and more secure.
- **Digishares** : more control and flexibility over the process. Automate, reduce administrative cost, fractionalize and increase liquidity through trading.
- **SmartREALTY** : uses smart real estate contracts to enact and maintain property purchase and rental agreements.
- **StreetWire** : ensure security for vulnerable transactions from the moment they are sent to the time they are received and processed, reducing the money, clients and time lost due to wire fraud.
- **CPROP** : arranges the property acquisition process to enable purchasing real-estates across countries and continents without trouble.

The difference between all those blockchain real estate projects is that none have reliable and decentralized means of storing or tracking the property's data; they are only playing the same game as every real estate actor, building more tech on top of an unreliable base.

CARBON CREDITS INDUSTRY

A FUNCTIONAL EXAMPLE OF INDUSTRY TOKENIZATION



The Carbon Credit industry is overly complicated due to the lack of global standards on how the Credits are emitted.

That is why there is such a wide range of prices; not all Carbon Credits were emitted with the same level of certification or are coming from different fields of depollution.

The process, however, is rather straightforward. Industries emitting CO² need to pay off the state for their carbon emissions. Instead, they can purchase Carbon Credits from emitters, which will end up financing the industries where these Carbon Credits are produced: green projects with net zero emissions or actively engaging in decarbonization.

They are then free to use Carbon Credits how they want, like exchanging them for cash. It should attract many professionals thanks to the financing opportunity. Unfortunately, due to the wide nature of Credits, they have to make sure they generate credits fitting to serious accreditation standards, which is a tedious and costly process. That keeps many small producers like farmers from onboarding the Carbon Credit program.

However, there is a way to make the Credit industry more efficient: traceability.

Every actor of the Carbon Credit chain tokenized in our ecosystem can upload frequent feeds of data, proving how much carbon dioxide is produced, how much is converted, what Credits are emitted, who certifies them, where they are spent, etc ...

As this process can be automatized, it will incentivize new actors to take care of the Carbon Credit certification process and relieve the administrative and financial burden from the smaller producers.

Hence, we are forging partnerships with various industrials of this ecosystem to show the world an example of a wholly tracked supply chain in the Carbon Credit and Decarbonization industries. More to be announced.



ELAND, A RELIABLE UTILITY TOKEN

The etherland ecosystem works using a utility token called ELAND. This is the token used to pay for bounties, grades subscriptions, and every upcoming platform feature. It is fully decentralized, meaning its ownership was released, its total supply is fixed and very low, and more than 75% of ELANDs are in circulation, guaranteeing the investors' serenity.

ELAND, A SETTLED TOKEN WITH HISTORY



ELAND TOKEN IN NUMBERS

Current token price: **\$0.00364001**
Total Supply: **41 024 063 ELAND**
Number of tokens in circulation : **30 597 240**
The total market cap : **\$113,389**
Holders : **2225**

SMALL SUPPLY, EXPONENTIAL PRICE GROWTH



ROAD MAP

Certificates, Grades & Public Infra Finalization

Q1-Q2 2023

Private Infra

Q2-Q3 2023

3D Rendering Team & Estatepedia JS

Q3 2023

User Tokenization, Moderator & Legal Teams Creation

Q1 2024

Mobile App 2.0

Q1-Q2 2024

Unreal Engine Cultural Metaverse

Q3-Q4 2024

Custom Marketplace

Q2 2023

Partner Agencies & Pro App

Q3 2023

DAO & Web Bounties

Q4 2023

Mapbox GL JS

Q4 2023

Mapbox Cadaster Evolution

Q2-Q3 2024

Partnership with Legal Entities

Q2-Q3 2024



WHY IS ETHERLAND INTERESTING NOW, AND WHY WILL IT BE INCREASINGLY TRUE WITH TIME?

Will my data be safe from any threat?

Thanks to the method we have implemented that works in part with IPFS, all your data will be stored on a decentralized network. This method makes them immutable in the face of any unforeseen event (natural cause, loss, server crash, ect...) and guarantees you instant access to them.

What promises Etherland makes to its users?

Etherland will not only revolutionize real estate but will also install itself as an institution. The first user-targeted institution where every land owner will control its safely stored data and keep benefiting from the latest technological improvements.

What is the estatepedia for?

The Estatepedia is the public-facing part of all the data stored on Etherland's IPFS network. However, it is shaped to be a very instructive encyclopedia on every type of real estate. If you are interested in history and beautiful places, the Landmarks section acts as a real encyclopedia, providing quality descriptions, pictures, and videos. On the other hand, if you are a real estate owner or a professional, the other categories, such as Residential, Commercial, or Industrial, will feature Certificates NFTs and their related key information (EPCs, legal documents, business-related documents, etc...).

To sum up, the Estatepedia is a real information hub for everything occupying Earth's land.

How does etherland increase the value of my property?

When your properties are listed on the Etherland Estatepedia, they benefit from increased visibility to potential future investors. Our interface is designed to attract and create a healthy environment for investors with its sheer data profusion and availability.

Also, since our infrastructure will make your documents available, the time allocated to their search and transmission will be significantly reduced, thus increasing the property's attractability by setting it apart. Lastly, we have designed high-added value products that will attach to your real estate, such as the grading system and the extensive reviews provided by our architects and investment professionals. Not to mention the cool factor of having a tokenized property before everybody else ;)

Do innovations like quantum computers threaten the security of our encrypted data stored on your platform?

Etherland relies on state-of-the-art data encryption technology (AES 256) and hashing technology (SHA3-256), which will continue to evolve and strengthen encryption mediums. These cutting-edge encryption mechanisms are currently considered Quantum Resistant.

If the data is stored on Etherland's server, do we really own it?

We pin the data to our IPFS server infrastructure to ensure that it remains persistent across the IPFS network and Internet. If the user wants to get ahold of his data, he can run his own IPFS node by downloading IPFS Desktop and pin his house's folder to his node. He will then have the files on his computer locally and participate in decentralizing the data and ensuring its persistence.

What is the ELAND (Token) used for?

The ELAND is the utility token used by the Etherland ecosystem. You will need it to perform various actions across our applications, such as pay bounties, grade subscriptions, or obtain more details on a property. The strong point of this entirely decentralized token is that its total supply is low and fixed. The vast majority of ELANDs are available to users, and the rest owned by the project will be kept as treasury and used to reward users in future applications; all these conditions together guarantee long-term sustainability for investors.

SOURCES

(ResearchGate PDF) A comparative study on registration system of real estate between Hong Kong and Mainland China

(ResearchGate PDF) Infrastructural Real Estate Issues

(ResearchGate PDF) Constraints and benefits of the blockchain use for real estate and property rights

Global Real Estate Market Share:
<https://www.grandviewresearch.com/industry-analysis/real-estate-market>

Tokenized market as a % of global GDP :
<https://cointelegraph.com/news/tokenization-of-illiquid-assets-to-reach-16t-by-2030-report>

Savills World research Real Estate Market Comparison:
<http://www.concordiarealty.com/resources/crc029-blockchain-will-revolutionize-real-estate/>

US Stocks, bond, real estate, and gold 2004-2019:
<https://www.carolinasinvest.com/ten-a-deceptively-convenient-round-number/last-15-years/>

% of data “Unstructured”
<https://www.pcmag.com/news/90-percent-of-the-big-data-we-generate-is-an-unstructured-mess>

Cost of Decentralized Storage/ Capacity vs Usage:
<https://www.coingecko.com/research/publications/the-state-of-decentralized-storage>

Top Trend technology in Real Estate :
<https://sloboda-studio.com/blog/real-estate-trends/>

City-Level Real Estate Transparency and Transaction Volumes:

REAL ESTATE TOKENIZATION AN INDUSTRY REPORT 2022 By DigiShares (Open Source PDF)

Real Estate Software Market Size be During the Forecast Period:
<https://www.technavio.com/report/real-estate-software-market-industry-analysis>

Price of Various land Types:
<https://visual.ly/community/Infographics/environment/land-prices-around-world-infographic>

World Access to formal administration systems:
<https://ieg.worldbankgroup.org/blog/why-land-administration-matters-development>

Differences between registers and the state in the field range:
<https://www.mdpi.com/2073-445X/10/4/399>

The danger of quantum computers
<https://www.forbes.com/sites/arthurherman/2023/01/10/did-china-break-the-quantum-barrier>

SHA3-256:
https://www.theregister.com/2016/10/18/sha3256_good_for_billions_of_years_say_boffins

<https://www.makeuseof.com/what-is-aes-256-encryption-how-does-it-work/#what-is-aes>

<https://thequantuminsider.com/2020/04/30/is-aes-256-quantum-resistant/>

Graph of the Token (ELAND):

V2:
<https://www.dextools.io/app/en/ether/pair-explorer/0xc2de17008677606259569e5fc4eba1e60914a6d6>

V3:
<https://www.dextools.io/app/en/ether/pair-explorer/0x8119c00d8a02c61f813675d23d5acb98851cf274>