Trade Tokenized Real Estate
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Platform Architecture is Based on Five Basic Logic Layers

DPOS is the Best Solution for the Alt.Estate Blockchain Efficiency and Reward Distribution

The Initial Set of Applications is Designed for a “Get-Go” Start of Protocol Operations

Alt.Estate Platform Provides User-Friendly Environment for the Initial Sale and Secondary Trading of Tokenized Properties

The Platform Consists of 6 Main Modules

ALT Token Holders Will Be Assigned Roles in the Platform

ALT Token Holders Will Take Part in Platform Governance

Team and Advisors

Alt.Estate Is the First Tokenization Project With a Solid Go-to-Market Strategy

Alt.Estate Will Provide Turnkey Solution to Property Sellers

Platform User Acquisition Strategy

Our Financial Model Is One of the Most Sophisticated in the Crypto Projects Universe

The Model Is Scalable and Viable under Various Assumptions

Tokenization, Transaction and Management Fees Are the Major Sources of Income

Tokenization Fee Is Paid by Property Owners

Transaction Fee Is Paid Whenever and Wherever Property Tokenized With Alt.Estate Protocol Is Traded

Management Fee Is Paid From Income Generated by the Property

Block Forging, Marketing, Legal and Technology Are the Major Costs

Significant Part of Income Will Be Paid to Node Owners for Forging Blocks

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The ALT Token Crowdsale

Crowdsale Details

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Milestone Plan Depends on Crowdsale Proceeds

Appendix 1. Risk Factors
1. **Executive Summary**

Alt.Estate Group is a financial technology company offering a new solution for real estate tokenization: the Protocol and the Platform.

Alt.Estate Protocol covers the technology, corporate structure and legal compliance aspects of tokenization. The Protocol will be a turnkey solution for anyone who wants to tokenize real estate, from developers to individuals. The Protocol is well-positioned to become the new standard of the industry.

Alt.Estate Platform is the marketplace for primary sales and secondary trading of tokenized assets. The Platform allows users to trade real estate in fractions with higher liquidity and lower costs.

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**Working Prototype**

Alt.Estate is the first real estate tokenization project with a working prototype: you can purchase tokenized property on our Platform before participating in the ALT token crowdsale.

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**Team**

The Alt.Estate team, with $400m worth of real estate deals in 2016 includes professionals with a strong background in investments, finance, marketing and operations.

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**Advisors**

We have advisors with worldwide expertise and transactions in real estate worth more than $3bn.
Alt.Estate is the first tokenization project with a viable go-to-market strategy. Our offer to market players provides clear economic incentives to use and promote our Protocol using their marketing budgets.

This whitepaper outlines the Alt.Estate value proposition, the marketing strategy, the business model, and the token distribution details.

Alt.Estate tokens (ALT) will be distributed among buyers during the crowdsale, the dates of which will be announced later.

Why blockchain:

**Decentralization**
Alt.Estate pushes the real estate market to become truly peer-to-peer. The transition from a centralized system to a decentralized one must be smooth to mitigate implementation risks. The integrity of the Protocol can allow two parties to make a deal without the intermediation of a third party, or to use a third party when necessary.

**Faster Transactions**
Alt.Estate Protocol eliminates third-party brokers, lawyers and banks by adding them to the network or assuming their functions such as listings, document flow and payments. Standard registration of the title of deeds with notarized documents could take up to 60 days. An Alt.Estate transaction can take less than 10 minutes.

**Lower Costs**
Alt.Estate has the potential to greatly reduce transaction fees by eliminating third-party intermediaries and overhead costs for exchanging assets (up to 30% of property price). The Alt.Estate trading fee is 2% (a reduction of up to 15-fold compared to a traditional real estate transaction), which can be further reduced as the network grows.

**Liquidity**
Real estate owners get access to both fiat and cryptocurrency investors without traditional cross-country boundaries, which highly speeds up the property sales process. Property-specific token holders can trade them in the secondary market within the Alt.Estate platform or wherever they want.

**Tokenization**
Fractional ownership enables purchasing real estate with a smaller ticket. Property-specific tokens are customized for each property and jurisdiction. Sellers receive a flexible sales instrument, and buyers can choose from a wide variety of real estate opportunities without traditional cross-country boundaries.

**Transparency**
Ownership and transaction data is accessible to all peers on the network. It is stored in the distributed web and hashes are recorded to the blockchain. The distributed consensus is achieved via a proof-of-stake algorithm; buyers and sellers are empowered with control of their information and have more confidence in conducting transactions.
Advantages:

**Low Entry Ticket**
The ability to buy a 1/1,000 fraction of a property makes it accessible to anyone.

**Low Transaction costs**
Traditional costs of up to 30% of property price are eliminated with tokenization.

**Global Portfolio**
Individuals and institutions can buy or sell fractions of properties without borders.

**Strong Expertise**
The Alt.Estate team and advisors have more than $4bn worth of transaction experience in real estate. The diverse team background and expertise inspire breakthrough innovation.

**Investment Portfolio**
Even a small investor can diversify his portfolio by purchasing tokens of a Manhattan penthouse, a warehouse in Guangzhou, a coworking space in Amsterdam and villas in Bali.

**Security & Protection**
Due diligence procedures prior to the property token offering and distributed storage of all the collected information provide additional protection.
2. **Alt.Estate's Vision Is to Promote Blockchain Technology in Real Estate by Creating Clear Economic Incentives for Market Players**

We bring innovation to real estate markets by implementing blockchain technology in the real estate marketplace and crowdfunding business models. Our goal is to promote blockchain and cryptocurrencies to the mass market by solving the traditional problems of investments in real estate.

We look forward to a brilliant future where all real estate registries are based on blockchain technology and can be combined into a transparent and secure worldwide distributed ledger that allows users to trade real estate fast, without intermediaries and with low transaction costs. We are eager to partner with all government and private projects to make this future come true faster.

Although direct interaction with governments is very important in the long term, business is much faster to adopt innovations, especially when they directly affect financial results. Promotion of blockchain technologies to business leaders will increase the lobby for further steps in the adoption of blockchain registries.

We offer real estate market players our Protocol for real estate tokenization, and the Platform for exchanging tokenized real estate assets. Tokenization enables trading real estate in small fractions, and makes it accessible as a result. Sellers attract new buyers who could not afford to buy real estate before, didn’t have the opportunity to invest internationally, didn’t want to bear high transaction costs, or wanted to pay for real estate with cryptocurrency. Buyers are additionally motivated by the transparency and liquidity provided by the secondary market within the Platform and the secure transaction records stored on the blockchain.

Alt.Estate makes it possible to buy and sell tokenized real estate assets in a trusted, fast and smooth manner with instantaneous transactions and low transaction costs. Any real estate owner can list his property or any fraction of it on the Platform, and anyone can become a buyer as the entry ticket is very low.

We are the first real estate tokenization project with a viable B2B marketing strategy. We will provide our solution to real estate developers, investment companies and brokers. As they are interested in any new sales channels, we can use their marketing budgets to promote our tokenization Protocol and quickly fill our exchange with tokenized real estate from all over the world.
3. **Alt.Estate Solves the Main Problems of Traditional Real Estate Investments**

The total value of world real estate reached $217 trillion in 2015 and is worth nearly 2.7 times the global GDP.\(^1\) This number includes only developed real estate, and would have been much larger had we counted the vast amount of undeveloped land around the globe.

Although the real estate market has plenty of opportunities for making big gains, investing in real estate is a lot more complicated than investing in stocks and bonds.

**Several major problems and barriers persist in real estate markets:**

- High threshold for entry
- Lack of liquidity
- Slow and complicated process of ownership transfer
- Lack of price transparency
- Risks of fraud
- High transaction costs
- Complications of cross-border transactions

All of them have been addressed many times throughout history. New investment vehicles have been invented which solve some of those problems, but there is no perfect solution, and the real estate market is still the most inefficient one compared to other asset classes.

\(^1\) SAVILLS WORLD RESEARCH 2016. *Around the world in dollars and cents*
4. **Both Crypto and Traditional Investors Benefit From the Alt.Estate Solution**

Real estate tokenization on blockchain technology is the next step in the evolution of real estate investment. Our goal is to make our tokenization Protocol the industry standard for property tokenization.

<table>
<thead>
<tr>
<th></th>
<th>Alt.Estate</th>
<th>Direct purchase</th>
<th>Private equity</th>
<th>Public REITs</th>
<th>Crowdfunding</th>
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<td>×</td>
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<tr>
<td>Low entry ticket</td>
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<tr>
<td>Low fees</td>
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<td>×</td>
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<tr>
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<td>×</td>
<td>✓</td>
<td>×</td>
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<tr>
<td>High transaction speed</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Price transparency</td>
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<tr>
<td>Easy cross-border deals</td>
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<tr>
<td>Buyer can select property himself</td>
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<td>✓</td>
<td>×</td>
<td>×</td>
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</tbody>
</table>

**Crypto investors will benefit from:**

- Access to real estate investment directly without leaving the crypto universe
- New diversification opportunities between crypto and fiat exposure, which are especially in demand during downturns in pure crypto markets
- The opportunity to buy real estate for personal use directly with cryptocurrency without conversion costs and access to foreign markets

**Traditional investors will benefit from:**

- Access to a new class of asset previously unavailable to most of the population; the minimum investment threshold for investors is significantly decreased, democratizing the entire real estate investing market
- Higher liquidity and price transparency, as tokenized assets are easily exchangeable and property tokens can be traded on our user-friendly Platform or anywhere else
- Using jurisdiction-agnostic property tokens, enabling cross-border transactions and allowing people to purchase real estate in other regions beyond their domestic jurisdictions
- Having a public market for every real estate property, which makes market pricing transparent and reduces information asymmetry between professional and retail market participants
• Registering all transactions in single public blockchain, which will eliminate fraud and unintentional accidents related to conflicting ownership registries

• The ability to easily buy and sell properties in pieces, which will not only make the market more liquid and efficient, but will also unlock entirely new possibilities for real estate owners; for example, borrowing money on the open market using only a portion of their real estate as collateral

• The opportunity to diversify their portfolio, not only between different classes of assets but also within the real estate asset class; better diversification provides higher returns at the same level of risk
5. **Alt.Estate Solution Targets Broad Audience With Different Problems: Crypto Investors, Middle Class, Traders, Crypto Whales and Institutional Investors**

5.1 **Crypto Investors Gain Easy Access to New Assets**

The number of people using cryptocurrency today has seen significant growth and rivals the population of small countries. It is impossible to know precisely how many people use cryptocurrency but all the studies show that there are millions of unique active users and the number is expected to grow exponentially in the next years.

We see the growing demand from them for the diversification of assets to fiat exposure without leaving crypto universe. During downtrends in crypto markets protective assets are being especially needed. Real estate backed tokens are the best option to meet those needs.

5.2 **Everyone Can Invest in Real Estate (Middle Class)**

Historically, the global real estate investment market has only been available to a small subset of investors. Large investment funds, corporations and high net worth individuals had almost exclusive access to this asset class. In addition, costs in real estate transactions can be as high as 30% of the property price, with many intermediaries earning up to 100% profit margins. This is not fair, and Alt.Estate will provide unprecedented access to the global real estate market for most of the population, who could not participate in this economy before.

5.3 **Traders Identify Arbitrage Opportunities and Make Profit**

Alt.Estate makes no recommendations about any particular investment, but the Platform provides investors with tools, relevant information, market data, sponsor information, property information and third-party information.

Traders will do their own due diligence and research when making decisions to buy undervalued tokens and sell overpriced ones. Higher liquidity and price transparency enables trading real estate like shares or bonds.
5.4 Whales Buy Real Estate With Their Cryptocurrency

Many early Bitcoin and Ether miners and investors have made a fortune. In addition to the motivation of all crypto investors to reduce exposure to crypto assets and diversify their portfolio, they need a convenient and low-cost way to buy expensive real assets.

While a growing number of merchants worldwide are accepting cryptocurrency as a payment method, and there are some projects allowing customers to pay by card directly from a crypto wallet, those payments are limited in size.

The Alt.Estate Platform will provide users with the opportunity to buy real estate all over the world for personal use.

5.5 Institutional Investors Increase Their Deal Flow and Earnings, Providing Others Access to Higher Profile Deals

Institutional investors can increase their deal flow through virtually outsourcing part of their job to find lucrative real estate investment opportunities to Alt.Estate. Also, institutions can earn a higher return through negotiating special investment terms for being cornerstone investors providing a substantial part of the fundraising amount. It is a “win-win” solution as other investors are ready to give away a fraction of their return to gain access to higher profile deals. Also, the participation of institutional investors, who always carry out their own due diligence, increases the confidence of smaller investors that may lack professional investment expertise.

The share of institutional investment in the real estate crowdfunding industry varies from 25% in the UK to 73% in the USA. The focus on institutional investors will allow the Platform to grow more rapidly. We expect that institutional investors will account for more than 30% of property tokenization.

<table>
<thead>
<tr>
<th>Traditional option</th>
<th>Alt.Estate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transaction costs</strong></td>
<td>30%</td>
</tr>
<tr>
<td><strong>Transaction time</strong></td>
<td>1 month</td>
</tr>
<tr>
<td><strong>Available options</strong></td>
<td>Country of residence</td>
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<td><strong>Entry ticket</strong></td>
<td>$100,000</td>
</tr>
<tr>
<td><strong>Protection from fraud</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Ease of use</strong></td>
<td>Complicated</td>
</tr>
</tbody>
</table>

2 IPF RESEARCH NOVEMBER 2016. Real Estate Crowdfunding: Gimmick or Game Changer?
5.6 Use Case: David Buys Fractions of Several Ocean Villas With Just $25,000

David is 37. He works as a manager in an IT company and is a typical middle-class man. Currently, he is seeking to invest his savings of 25,000. David is cautious of risks because he is a father of two and rather reluctant to bet all his hard-earned capital on some opportunistic venture. He already has a broker operating on his national stock exchange. Now David is considering alternative investments to diversify his portfolio and to obtain higher returns at the same level of risk. He knows that he wants to focus on short-term rentals due to the soaring demand for Airbnb and other online marketplaces. David’s wealth is not enough to purchase such property, and he is not allowed to invest in private real estate vehicles under his country’s laws (he does not qualify as an accredited investor). The only option David can afford is REIT shares on the stock exchange. David does some research and finds out about their price volatility. Plus, in times of financial instability they’re just as vulnerable as his other equity shares, and there’s the possibility of asymmetrical pricing (the private market value of the underlying real estate can be several percent below what the trading value is). Also, he does not want to be a “blind” investor, unaware of which real property he owns.

Part of the reason Alt.Estate exists is to help David and other people struggling to access the exclusive world of real estate. With Alt.Estate, David figures out the best options available for him through the online Platform. He selects several ocean villas in Indonesia, France and the Dominican Republic, instantly purchases their tokens from the secondary market within the Platform, and now owns a diversified portfolio.

David completes this miraculous transaction within one hour without having to bother about all the paperwork and legal issues he would have definitely faced otherwise. He can sell his tokens anytime in the secondary market.

5.7 Use Case: Jin Fu Quickly Gets a Diversified Worldwide Portfolio Including a Penthouse in Miami

Jin Fu, an early Bitcoin and Ether enthusiast and investor, has accumulated considerable wealth, mostly by investing in cryptocurrencies. In order to diversify his portfolio and lock in profit from crypto asset appreciation, he wants to purchase real estate. He’s not an expert in real estate investment, and does not understand how complicated and expensive the process can be.

He considers selling crypto assets for fiat currencies (several million US dollars or Euros) and investing them in real assets. After consulting with his lawyer, he finds out that he cannot withdraw his money from the crypto exchange despite complying with all its KYC and AML procedures, as his country does not have legislation that would allow him to confirm the source of income to authorities. Even if those regulations existed, or he used some legal loopholes or gray-area scheme, it would incur transaction costs of at least 5-10%, which pales in comparison to the possible taxation, and that would still not guarantee the absence of legal problems. There would be a huge fee just to withdraw the money, and the time-consuming process of purchasing real assets,
involving new fees and other expenses, had not even started. He is reluctant to lose half of his assets’ value due to transaction costs. The only option to lock in the crypto profits he’s left with is to sell the cryptocurrencies and keep the proceeds in his account at a reliable digital asset exchange without any exposure to income-producing real assets.

Alt.Estate introduces a new way to get exposure to real estate. Jin Fu converts his cryptocurrency directly into ALT tokens in the same digital asset exchange. Essentially, he swapped his cryptocurrency for exposure to real estate located all around the world and producing income nominated in fiat currencies. Although ALT tokens are not backed by assets directly, they can be exchanged with property-backed tokens on the Platform at any moment. He reached his investment objective in a few minutes without any of the transaction costs described above. Later, he saw the apartment of his dreams in Miami listed on the Platform, and easily converted part of his Alt.Estate tokens into 100% of the penthouse’s tokens, making his dreams come true in one click.

5.8 Use Case: Recent Graduate Mengyao Finds the Way Around Structural Barriers to Invest in Lucrative Properties

Mengyao Lin, recently graduated and working as a specialist in the Financial Futures Exchange, has been there for a year now. He is a young but very ambitious investor, having already managed to build a diversified portfolio across all the channels available to him. As a financial advisor, he is aware of the fact that demand for real estate is huge in his country: the average price on the residential market in the capital has skyrocketed by 100% in just 5 years. He has accumulated just enough capital to meet the minimum 20% down payment for a mortgage set by the government last year. But even tougher new regulations have put Mengyao’s investment plan into question: now the minimum down payment has increased to 30% (if it was a second home, it would be 60-80%). He has a friend in a smaller city and considers this cheaper location. Unfortunately, the local government has made loan applications conditional on evidence of at least one year of tax returns in the city, plus evidence of residence and employment, making it impossible for non-resident buyers to invest in the market.

Totally frustrated, Mengyao approaches agents to learn about real estate opportunities overseas to get past the government’s restrictive policy. He’s offered the four most popular locations: Portugal, Australia, New Zealand and Florida. Mengyao likes everything about the idea of investing in these markets, except for three things: 10% agents’ fees, plus the bulk of other expenses which can push transaction costs up to 30%, and now he needs an even bigger loan.

With Alt.Estate, he investigates dozens of lucrative real estate opportunities at home and overseas without redundant restrictions or prohibitive transaction fees. Through Alt.Estate, he is introduced to the blockchain and crypto worlds. He’s now able to create a sophisticated high-yield portfolio. It turns out that Mengyao’s savings can get him exposure to several properties in his country’s capital, as well as all of the overseas locations mentioned by the agent, which means he has a portfolio that’s diversified on two levels: geographically, and within each territory.

6.1 Alt.Estate Tokenization Protocol Can Become Industry Standard

The Alt.Estate tokenization Protocol is a combination of smart contracts, technologies and legal structures used on the Platform and offered as a turnkey solution to the wide range of players in the real estate market. The Protocol allows developers, brokers, investment companies and other property owners to access new markets and sell their property or raise financing faster and on better terms.

6.2 Alt.Estate Real Estate Investment Structure is Straightforward

- Developers, brokers, investment companies, and any other property owners list their properties on the Alt.Estate Platform and/or their own websites for tokenized sale
- Property-specific tokens are issued and sold to the buyers
- Property-specific tokens are traded in the secondary market in the Alt.Estate Platform or any other exchange, or in peer-to-peer deals
- All tokenization, transaction, management and any other fees are payable exclusively with ALT tokens

Alt.Estate Platform Structure and ALT Token Circulation:
6.3 Use Case: Investment Company Sells Property Faster Than Ever

REIC LLC is planning on its next real estate investment project. 3 years ago it invested in the development of a prime office building in London. The building is now ready and 50% of the space was sold or leased out during the construction period.

The project is quite successful and it is expected to reach 100% occupancy at the projected rental rate in 6 months, but REIC has gone slightly beyond its budget and now lacks the liquidity to make the next promising investment. The company is limited on debt-financing opportunities by previous loans’ covenants. The CFO decides to sell out part of the project to gain the necessary liquidity. Currently, sales of such properties take at least several months, and he’s looking for new sales technologies, because the other project may be outbargained by competitors.

Alt.Estate Platform lists one floor of the building, promising to sell it within 45 days. As the platform gives access to investors all around the globe and demand for exposure on prime offices in London is high, this tokenized property is easily sold ahead of schedule. REIC not only receives the funds, but now also has a unique price discovery instrument for the building, as tokens are traded on the secondary market, and the current fair price for a square meter is determined by the market. REIC joins the community and integrates the Alt.Estate Protocol as one of the sales channels. Now, company properties are listed both on its own website and on the Platform, which makes the tokenized sales even faster and promotes the Alt.Estate Protocol.

6.4 Use Case: Pedro Gets Money for Stanford by Tokenizing His Apartment

Pedro is an employee in an office of a multinational company. In order to make the next huge move in his career, he needs an MBA degree. He has just received an acceptance letter from Stanford Graduate School of Business and is happy as ever. He would not miss such an opportunity, but tuition fees at Stanford’s MBA program are exorbitant. The first academic year alone is over 100,000.

Pedro’s initial plan was to cover part of the expenses by renting out his house with the remaining part financed by bank loans. Pedro’s calculations show that the monthly interest payments are higher than the rental income. Another option is to sell his house, but that is the least desired scenario, since Pedro is emotionally attached to this property.

Alt.Estate allows Pedro to sell a fraction of his house, gain cash instantly, and at the same time continue to benefit from exposure to this income-producing property along with other investors. His house is tokenized through the Alt.Estate Protocol and listed on the Platform. He can buy and sell any number of tokens depending on his current financial situation and cash flows. Also, the Protocol gives him the opportunity to buy back all the tokens.
7. Alt.Estate Protocol Is Based on Two-Layer Token Model

7.1 SQM Tokens: Each Property in the Platform Will Have Its Own Property-Specific Token

SQM tokens are property-specific tokens, which are created when a new property is tokenized. Each property listed on the Platform has its own SQM_{PID}, where PID stands for a unique property ID. The SQM token was engineered to be legal proof of real estate property ownership, and integrate with blockchain property rights registries as soon as the necessary technology and legislation are established. Each SQM_{PID} simulates and represents the corresponding fractional ownership of the underlying property within the existing legal framework. The number of SQM_{PID} created is equal to the area of the underlying property in square meters. One SQM_{PID} represents an ownership share equal to 1/(the total number of SQM_{PID}).

Each SQM token has its own smart contract, which is designed specifically for the jurisdiction of the property, and its type and purpose.

An SQM token smart contract can include various provisions unique to each property, but there are 4 general functions of SQM tokens:

- An SQM token is a store of value: it provides the investor with exposure to the underlying property income (allows investor to participate in rent income), expenses and price changes
- An SQM token is an instrument for raising funds by sellers tokenizing their property
- SQM tokens allow a token holder or joint group of token holders who own 100% of the SQM_{PID} to use the underlying property at their own discretion (for example, live there or work)
- SQM tokens give voting rights on property-specific decisions through a special mechanism decentralizing property governance

Some SQM tokens have traits of securities, and Alt.Estate will go through all the necessary licensing, registration or exemption procedures in the corresponding jurisdictions before any such tokens are sold or traded. Cash flows from income-generating properties and proceeds from the sale of property will be distributed through a smart contract as dividends, or through buyback tools to provide additional liquidity to the secondary market.

Other SQM tokens will be pure utility tokens and will require no licensing (for example, timeshare and coworking space access tokens).

Although the SQM token price is backed by the underlying property value, it can still fluctuate, and SQM token trading can be used to make a speculative profit.

SQM tokens can be bought or sold on the Alt.Estate Platform or any other exchange, or in peer-to-peer deals. All transaction costs are built into SQM token smart contracts and are paid exclusively with ALT tokens, irrespective of where SQM tokens are traded.
7.2 ALT Token Is a Means of Payment and a Store of Value within the Platform and the Fuel of the Protocol

The ALT token is a pure utility token used for several specific functions within the Platform. There are 3 major functions of ALT tokens:

- ALT token is the fuel of the Protocol and the Platform; all the fees (tokenization, transaction, management, etc.) are paid exclusively with ALT tokens
- ALT token is a means of payment and a store of value:
  - SQM tokens on the Alt.Estate Platform can be purchased with ALT tokens
  - ALT token holders can earn extra income for work done within their roles assigned on the Platform paid with ALT tokens
- ALT tokens give voting rights on decisions through a special mechanism decentralizing Platform governance

ALT token holders can sell their ALT tokens outside the Platform.

As the agreed ALT token price can fluctuate, we anticipate that ALT trading can be used to make a speculative profit. We emphasize that Alt.Estate is not responsible for possible losses associated with such an unauthorized speculative use of ALT tokens. The core functionality of ALT tokens within the Platform is guaranteed unconditionally at the market price of ALT tokens.

The ALT token supply is fixed: no new ALT tokens will be created after the initial crowdsale.
8. Tokenization Workflow Can Be Described in General but the Protocol Is Very Flexible and Will Change in Line With Legal Framework

8.1 Any Seller Can Tokenize Property With Alt.Estate

Any real estate seller (individual or institution) can list property on the Platform. The listing process consists of the following steps:

- a seller registers with the Platform and passes all KYC, AML and other procedures
- the seller applies to list the property on the Platform
- preliminary analysis of the property
- appraisal
- expert committee approval
- due diligence procedures
- the qualifying property is assigned a unique property ID (PID)

8.2 The Protocol Is Developed in 2 Phases

8.2.1 Phase One: Crowdfunding Business Model Is Used

Investment opportunities are detected through Alt.Estate market research, and we will leverage the experience of our team and advisors. Procedures including analysis, appraisal, expert committee and due diligence are performed to confirm the investment decision.

The first phase is the major source of the Platform’s growth within the existing legal framework. For this phase, a proven crowdfunding business model is used:

- The seller lists a qualifying property for crowdsale
- Investors submit firm commitment orders and deposit funds to a special crowd wallet
- When the funding target is reached, Alt.Estate Group sets up the legal ownership structure, including a Special Purpose Entity (SPE) to tokenize the property
- A fixed number of SQM_{PID} tokens are issued: one token per square meter of the property
- The SPE purchases the property and distributes SQM_{PID} tokens among the crowdsale participants
- The SQM_{PID} tokens are listed on the Platform

Alt.Estate can use its own funds to co-invest in crowdfunding listings to further align its own interests with the interests of investors.
8.2.2 Phase Two: Alt.Estate Protocol Transformed Into Decentralized P2P Tokenized Real Estate Market

The second phase will be launched as soon as the necessary technology and legislation are developed, jurisdiction by jurisdiction. Sellers will be motivated to tokenize their property, even without the intention to sell it immediately, as any fraction of tokenized property can later be sold, inherited, gifted, or otherwise distributed with minimal transaction costs.

Decentralization elements will be tested and added to the Platform on a step-by-step basis. Alt.Estate blockchain development, community growth, and ALT token holders’ gradually increasing role in operations and governance are the foundation for the second phase.

8.3 Alt.Estate Protocol is Based on Existing Legal Framework and Prepared for The Future

In Phase One, existing real estate crowdfunding and securitization models are intended to be used.

In some jurisdictions, the nominee trust structure is the best available solution. A trust will hold the shares of SPV, which owns the property, for the benefit of SQM token holders. Beneficial rights will be protected by the nominee agreement. In this case, the SQM token itself will represent the proof of being party to such an agreement.

In others, SQM tokens can represent the shares in SPV without any trust structure. This requires the legal possibility to keep shareholders registries and the writing of share transfers on the blockchain. For example, Delaware, which is sometimes called the “incorporation capital” of the USA, made it legal to maintain shareholder lists using blockchain technology.3

In Phase Two, SQM tokens are expected to be legal proof of ownership. At this stage no SPE structure will be needed. This can be implemented when blockchain technology will be adopted by the national laws on title registration.
9. Technology stack of ALT.Estate Protocol and Platform is Reliable and Flexible to Fit the Growing Market Requirements

9.1 Platform Architecture is Based on Five Basic Logic Layers

Our team continues to research and test the best of the technologies available on the market. The description below reflects the current state of our vision and is subject to change based on future research.

The Platform is based on the Command Query separation\(^4\) technique (write and read requests performed separately) and is divided into five basic logic layers: the Distributed Storage Layer, the Ethereum Ledger Layer, the Access Layer, the Interface Layer, and the Applications Layer.

The Distributed Storage Layer is the core layer of the Alt.Estate Platform that keeps a distributed ledger on the blockchain technology to store big amounts of data. Every element of this layer - blockchain, storage and virtual machine - are present multiple times across the network nodes and everyone can create a personal local copy.

\(^4\) Bertrand Meyer LASER 2012. *Eiffel: a language for software engineering*
- The **Blockchain Ledger** is a customized version of the Ethereum blockchain ledger.
- The **Ethereum Virtual Machine (EVM)**\(^4\) is a decentralized Turing complete virtual machine that executes scripts. To mitigate spam and allocate resources on the network, EVM uses an internal transaction pricing mechanism called "Gas". Its price is expressed and paid in ALT.
- The **InterPlanetary File System (IPFS)**\(^5\) is a peer-to-peer network connecting remote servers in a single global decentralized storage platform. It is used to store all the documents connected with real estate properties, buyers, sellers and transactions. The IPFS system is scalable and allows for the storage of all documents in a decentralized manner. Documents stored in IPFS are strictly linked by the document hash to the corresponding blockchain transactions. This makes it possible to achieve distributed data integrity.

The choice of technology stack (customized Ethereum and IPFS) is based on storage requirements and the rewarding mechanism (which is designed to reward node administrators, token holders and the Platform). The basic node structure consists of EVM and IPFS, which run in parallel. This makes it possible to achieve the proper motivation for node administrators and to provide all the necessary resources for running the Platform.

The Ethereum Ledger Layer works on the Ethereum Blockchain and is used for two primary purposes:
- It anchors key information on transactions of SQM tokens on the internal blockchain
- It gives additional capabilities and liquidity to the ALT token

The **Access Layer** is a set of distributed Witness and Public Nodes that provides data from the Distributed Storage Layer and Ethereum Ledger Layer and receives Queries and manages Commands. Creating a Public Node as an additional access point to the information stored on the blockchain is not limited and is available to everyone. Creating a witness node that can produce blocks on internal blockchain and manage Alt tokens on the Ethereum network requires registration, submission request, approval by token holders, and the guarantee of constant node availability.

The **Interface Layer** is the centralized service node providing the backend capabilities in the unified format of API to the Application Layer of the Platform. This layer receives an input and generates two types of requests to the Access Layer: Commands (write requests) and Queries (read requests).

The **Applications Layer** is a set of “Microservices” that run 24/7 and are maintained by the Alt.Estate team. At later stages, this layer may perform as an application marketplace hosting functionality developed by third-party developers, and community and real estate market players.

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\(^5\) [https://ipfs.io/](https://ipfs.io/)
9.2 DPOS is the Best Solution for the Alt.Estate Blockchain Efficiency and Reward Distribution

The Distributed Storage Layer of the Alt.Estate Platform is based on IPFS and the customized Ethereum Ledger, though with the following changes.

**Consensus** is achieved via the Delegated Proof of Stake (DPOS) algorithm. This consensus model makes it possible to perform token holder approval and rights-delegation for the key actions on the blockchain, including block generation and resolving consensus issues in a fair way. The consensus mechanism is performed via a witness who certifies that the signature and timestamp of a transaction are valid and produce blocks. Anyone can submit a witness application. All applications are screened by the Alt.Estate team and a list of witness is formulated. Token holders elect witnesses via a voting mechanism.

**Block Generation Reward.** ALT token holders select witnesses in a continuous manner. Each time the elected witness produces a block, corresponding token holders receive a reward proportional to the token amount used to vote for the witness. See the formula below.

\[ TR = (\sim 0.25 \times TxFee - WR) \times \frac{TS}{TWS} \]

where:
- \( TR \) is the token holder reward,
- \( TxFee \) is the transaction cost (Gas) in ALT tokens,
- \( WR \) is the witness node admin reward,
- \( TS \) is the token holder stake for the corresponding witness node admin,
- \( TWS \) is the total stake for the witness node admin from all the token holders.

A witness is rewarded for each produced block in the amount defined by the token holder.
**Smart Contract Deployment Process.** Any ALT token holder can upload smart contracts to the network. Such smart contracts are marked as “Under Development” until the contract validation process is passed. Quality assurance is initially performed by the Alt.Estate team and includes a legal framework compatibility check, the Platform-architecture compatibility check and a security check.

![Smart Contract Deployment Process Diagram]

**Anchoring.** To increase the security, transparency and fault tolerance, the Platform periodically duplicates key information from the Storage and Ledger layer to the Ethereum network. This process is automatic and independent, and is not controlled by the witnesses.

![Anchoring Diagram]

**9.3 The Initial Set of Applications is Designed for a “Get-Go” Start of Protocol Operations**

The Distributed Storage Layer of the Alt.Estate Platform is based on IPFS and the customized Ethereum Ledger, though with the following changes:

- The Property Marketplace is the live order book for every property listed on the Platform. Via this app, the user becomes familiar with property outlooks, costs, current statuses, locations, etc.
- The Seller Dashboard is a single endpoint for sellers that makes it possible to list and manage the property on the Platform and receive all of the relevant notifications and reporting.
• The **Investor Dashboard** is a single endpoint for investors that facilitates managing owned properties, tracking all crypto and fiat transactions, and receiving all of the relevant notifications and reporting

• The **Property Dashboard** provides detailed information on the property and its current state, access to the property-related transaction history and all the relevant legal documentation

• The **Cross-currency Payment System** is an integrated set of payment tools (payment gateways, exchanges and other pay-in/pay-out systems) that provides a way to invest and sell properties in the currency of a user’s choice

• The **Voting System** is a smart-contracts-based subsystem allowing the ALT and SQM token holders to find consensus on the main protocol-related and property-related issues (Witness Nodes admin approval, property management, future platform development, witness pay, etc.)
10. **Alt.Estate Platform Provides User-Friendly Environment for the Initial Sale and Secondary Trading of Tokenized Properties**

10.1 **The Platform Consists of 6 Main Modules**

The 6 Platform modules will be a seller dashboard, seller directory, property directory, marketplace, investor dashboard, and role manager.

Each new seller desiring to list his property on the Platform will be required to register. After registration and initial verification, he gains access to the personal seller dashboard.

Alt.Estate performs initial due diligence on the new seller and adds him to the seller directory. The seller’s page displays all the public information about each seller.

After the property is approved for listing, it is added to the property directory. The property directory is a well-structured database of all real estate objects listed on the platform.

The marketplace, where investors submit their buy/sell orders, has a live order book for every property listed on the Platform. All properties are listed under two categories: primary and secondary market. Primary market objects move to the secondary market as soon as the crowdfunding process is successfully accomplished. The Platform runs 24/7, and executes transactions on matching bid/ask orders.

The investor dashboard contains advanced features for investors, and is available for any qualifying and verified registered user. The investor dashboard is a personal portal where users can access all current and historical information about their activity on the Platform.

The role manager is available to all ALT token holders. Each token holder can be assigned one or more roles in the Platform.

**Alt.Estate Platform Module**

![Alt.Estate Platform Module Diagram]
10.2 ALT Token Holders Will Be Assigned Roles in the Platform

Each user registering on the Platform will be asked if he or she desires to execute a particular role in the Platform. If the user owns some ALT tokens and has not selected a role, he will be assigned the basic role of promoter. Other roles will include affiliate, analyst, appraiser, broker, notary, property manager, registrar, etc. A full list of roles will be available on the Platform website. Some of the roles require special skills, certificates or licenses, and will require uploading additional documents to qualify. All members of the community will have the opportunity to earn part of the fees paid for the use of the Protocol or the Platform with ALT tokens as a percentage or a fixed amount. The work offered can include attracting new investors, market analysis, property appraisal, etc.

The growth of the community and participation in the Platform workflow lay the foundation for its future decentralization and self-regulation.

10.3 ALT Token Holders Will Take Part in Platform Governance

ALT token holders are involved in the decision-making process regarding real estate listed on the Platform, selection of third party vendors, and other strategic decisions of Alt.Estate development. ALT token holders will have the opportunity to address any issue in the voting system. A vote will be held at least once a year. The results of this vote will be submitted to the Alt.Estate management.

Voting results won’t be binding, but they will be strongly considered in decision making. We will test and adjust the voting mechanism to make it perfect for future decentralization of the Platform.
11. Team and Advisors

The Alt.Estate team, with $400m worth of real estate deals in 2016 includes professionals with a strong background in investments, finance, marketing and operations. The diverse background and expertise inspire breakthrough innovation.

CEO

**Vladimir Shmidt** /fb /in

10+ years of experience in digital business. Co-founder of teamo.ru (a premium dating service), which was sold to mamba.ru (valued at $100m after closing the deal). Worked as a financial analyst at Renaissance Capital and GE Money Bank. Former commercial executive at mobile loyalty startup of Sberbank ($77bn market cap).

CTO

**Anton Lysak** /in

Founder & CTO at software development companies, including ABBYY LS (2,500 corporate clients worldwide, including 25 companies in the TOP 100 Global Brands and 35 Fortune 500 companies), developed a platform for AI commercial agreement recognition in 189 languages. Expertise in cloud systems, speech analysis, big data, Azure, C#, .Net, DevOps, Agile.

BizDev Executive

**Ivan Butenko** /fb /in

Former project leader at Urban Group. Developed marketing and sales of apartments and commercial premises worth $400m+. Founder of cloud-based document-workflow automation service for processing real estate transactions. MBA in Financial Management.

Development Team Lead

**Ivan Sidorov** /in

Participated in development and support of blockchain projects: UnitedTraders ($32m token sale), TokenStars ($5m token sale), ICOforce, etc. Experience in managing teams of 20+ developers.

Blockchain Developer

**Aler Denisov** /fb /in /github

Software engineer with 10+ years of experience in commercial development. Participated in and managed the development of software for industry leaders: Sberbank, Russian Railways, Sukhoi, MiG, Tupolev, ilyushin. Core developer of exonumbootstrap, an open-source library to construct corporate blockchains. Participated in the development and advised projects: Brat, Edem, Proof-of-Status. Key speaker on the subjects of smart contracts and DApps at Cryptoacademy.

Regional Manager. Pacific Region

**Andrés Mena Alfaro** /in

Business professional with work experience in finance for Australia’s largest site for P2P lending, with a $400m loan portfolio. Experience working for international companies in the areas of business development, sales, and analytics in Latin America, Southeast Asia, the Middle East, and Australia. Projects implemented for clients including Shell, BP, Samsung C&T, Petrofac, McDonald’s, Bose Corporation, DBS Bank, Deloitte, and AccorHotels.
Regional Manager. Asia Region
Enoch An /in
Experience representing companies in the Korean market (Karma.red, raised $10m at the ICO). Experience with Korean stock exchanges, listing, and organizing events.

Regional Manager. European Union
Guillaume Ravier-Mizelle /in
Experience working for large international companies (Total, the 4th largest company in the global oil and gas industry, with offices in 130 countries; Boeing, the 2nd largest company in the global aviation industry).

CMO
Liana Tagirova /fb /in
Former online sales and marketing director at Acronis. 5+ years of experience in digital marketing: Acronis, New Cloud Technologies, Lingualeo, Rambler & Co, NARR8, Groupon.

Head of Legal
Aleksei Ulianov /fb /in
Supported M&A and real estate transactions in companies that managed $1.9bn in assets in the energy sector, retail, and the industrial construction, woodworking, and chemical industries. Participated in development of urban policy legislation innovations.

BizDev VP
Saruul Nadbitova /fb /in
Worked for Rusnano, a private equity and venture capital fund focused on nanotechnology ($2.89bn under management). Speaker at several international academic conferences.

Business Analyst
Vitaliy Losev /fb /in
Former director of the "Corp." community (300,000 subscribers). Former COO of the Ephir clothing brand and several e-commerce projects in retail. 4+ years of trading experience in securities and cryptocurrency trading.
We have advisors with many years of experience and worldwide expertise in real estate; they’ve closed deals worth billions of dollars all over the world.

Matthew Falk /in
Senior Software Engineer at FeatureX

Research scientists and engineers at FeatureX are building a data-driven model of the global economy. Matthew has worked for Two Sigma, Palantir Technologies and Facebook. Matthew exploits weaknesses in current cryptographic techniques and designs new algorithms to replace them, works on developing new Quantum Computation algorithms through research and experimentation, and holds a Masters Degree in Computer Science from MIT.

Brian Meegan /in
Managing Member at Evergent Law LLC

Brian is an active entrepreneur and corporate transactional attorney with 20+ years of experience in U.S.-based and international mergers & acquisitions, real estate transactions, leasing and debt/equity issuances. Brian is currently the managing member of Evergent Law LLC, a corporate law firm in Denver, Colorado, and the founder and CEO of a back-office administrative support company.

Sayan Tsyrenov /in
Director at PwC, Real Estate Mergers & Acquisition Advisory

PwC is one of the leading professional services networks in the world, with over 236,000 employees and offices in 736 locations across 158 countries. Sayan knows the real estate investment market in detail. He worked for 12+ years at Colliers International and Cushman & Wakefield, and successfully closed transactions worth $3bn.

Stas Tikhonov /in
Partner at Knight Frank, angel and venture capital investor

Knight Frank is one of the largest global property agencies and consultancies with 14,000 professionals and 411 offices in 59 countries. Stas has 20+ years of experience in real estate. He is responsible for key client relations, investment deals, and project finance for residential and commercial real estate in Russia and Europe.

Alexander Shatalov /in
Partner at Savills, CEO

Savills is a global real estate services provider with 30,000 employees and 700 offices worldwide. Alexander has 20+ years of experience in real estate. He leads a team of some of the most experienced professionals in the industry. Alexander works with high-profile clients, picking real estate deals all over the world.
12. **Alt.Estate Is the First Tokenization Project With a Solid Go-to-Market Strategy**

12.1 **Alt.Estate Will Provide Turnkey Solution to Property Sellers**

Real estate developers, brokers, and investment companies will be able to offer tokenized property at their own websites. Alt.Estate will cover all the aspects of property tokenization, from technology and infrastructure to legal compliance and corporate structuring. As a result, the sales process for tokenized properties will be seamless and transparent.

Market players will use their own marketing budgets to sell tokenized properties as they do for traditional sales. The multiplicative effect of such an expansion of the Alt.Estate Protocol will be significantly larger than any tokenization project can reach by relying on its own marketing budget.

12.2 **Platform User Acquisition Strategy**

To design an acquisition funnel, we will:

- Dive deeply into customer development to define the behavior of the top-10 paying audience groups, with focused interviews to reveal their needs and values
- Create 10 landing pages and A/B test them. Launch marketing activities in several channels like SEM, SMM, Display networks, Messengers, Blogs, Email, and CPA affiliate networks to find the best traffic sources
- Constantly experiment with new channels and ad formats
- Launch remarketing campaigns and publish articles on profile sites and forums to increase the volume of branded queries. Optimize the site and landing for a better search position, and make branded contextual advertising campaigns
- To increase conversions in the registration process, we will tune the effectiveness of advertising, and redistribute the budget to better-performing channels. We will conduct A/B testing of landings weekly, collect best practices, and spread them to all landings

To strengthen the marketing force we will hire a marketing analyst, advertising manager, project manager and copywriter.

A team of front-end developers and SEO professionals will be outsourced in order to reduce staff costs during the testing process and allow the number of tasks to rapidly increase when scaling.
To build the sales force we will:

- Organize a general sales department for all countries: we’ll hire a head of sales and 7 salespeople
- Create personalized scripts for each target audience, which will form a need, accelerate decision-making, and withdraw objections. Implement scripts in CRM to improve efficiency
- Configure CRM with automatic task distribution between salespeople to increase the number of processed clients per salesperson
- Find an external call center to reduce missed calls. As a result, we will be able to answer 90% of calls in 10 seconds, and then 95% in 5 seconds. We will set up customer profiles and classify callers into groups according to the degree of profitability and urgency
- Automatically prioritize calls to reach the 30% of customers who bring 95% of the turnover. This will allow us to get through peak call periods smoothly. After reaching the planned profitability of 1 call, we will attract additional salespeople
- Use CRM to make a progressive scale of incomes and encourage the best salespeople with high-probability leads
- To increase the probability of a deal, set up CRM so that it determines which audience each salesperson is working with more effectively. Organize automatic customer redirection to salespeople who will cope better
- Create a training methodology and hire a trainer who will train beginners. After opening additional sales departments in several countries, we will hire field trainers who are familiar with the specifics of each country
- To maintain the quality of communication with customers, organize quality control of conversation records

We will hire a head of sales and 7 salespeople. After an increase in salespeople, we will hire a training manager and field trainers, as well as a quality control specialist.

The call center will be third-party so as not to overhire staff, while still maintaining but remain good quality of service at peak times. Processing calls for quality control will also be handled by third-party contractors.
To master retention we will:

- Hire a manager of the retention department and 2 assistants to organize training webinars, hire 3 expert speakers, and create a video course
- Build a system of triggers to retain customers: mailing cycles with real estate lessons, and staged recommendations for different audiences. The cycles are 0-7, 8-21, and 22-60 days
- Make a bundle of CRM client cards with a platform to keep track of interesting mailings to each user. Based on this, create triggers in CRM to automatically place tasks for sales managers to call the client
- At the first stage hire 2 analysts and 5 international experts to prepare reports on real estate markets. Then organize the process of preparing targeted offers for different strategies and types of audiences
- Organize a 24/7 user support center. At the initial stage, we’ll hire a head of Customer Care and 4 support personnel, and make a script with answers to the top 30 questions

In total, we will hire a Client Retention and Development Department team consisting of a manager, two assistants and a direct marketer; a Department of Analytics team consisting of a senior analyst, junior analyst and trainee; and a Support Department team consisting of a department head and 4 managers.

During peak hours, they will use a third-party call center.

To constantly improve results, we will:

- Perform end-to-end analytics by displaying an advertising banner at checkout in order to determine the audience that brings the maximum income from month to month. This will increase profitability, even in case of fluctuating markets
- Attract an expert and assistant to search for growth points, test hypotheses and implement changes
- Hire a department head, analyst and assistant
13. Our Financial Model Is One of the Most Sophisticated in the Crypto Projects Universe

13.1 The Model Is Scalable and Viable Under Various Assumptions

Model outputs described in this whitepaper are based on certain assumptions, including $15m in proceeds from the ALT token crowdsale. [Download our financial model](#) to get the full list of assumptions and simulate different scenarios yourself.

13.2 Tokenization, Transaction and Management Fees Are the Major Sources of Income

### 13.2.1 Tokenization Fee Is Paid by Property Owners

Real estate developers, brokers, and investment companies willing to use the Alt.Estate Protocol will be required to pay a tokenization fee. It will vary depending on the jurisdiction, type and price of the tokenized property, etc. We expect that a 5% average tokenization fee will cover the Protocol development, user acquisition and rewards for block forging. At the same time, it will be interesting to property sellers, as it is a small price to open a new previously unavailable market and sell real estate in bulk or raise funds faster.

### 13.2.2 Transaction Fee Is Paid Whenever and Wherever Property Tokenized With Alt.Estate Protocol Is Traded

All secondary market transactions with Protocol-tokenized properties will charge a transaction fee. We expect that a a 2% average transaction fee will cover the rewards for block forging and the marketing costs necessary to attract new buyers to provide liquidity to the sellers of property-specific tokens.

At the same time, such a transaction fee is much lower than in traditional real estate deals, which makes a purchase in a secondary market of interest to real estate investors.
13.2.3 Management Fee Is Paid From Income Generated by the Property

All the properties tokenized with the Protocol will be required to pay a management fee to Alt.Estate based on the amount invested. We expect that a 1% average annual management fee will cover investment and research costs which are not outsourced to third party vendors and not covered by other sources of income.

Alt.Estate token income structure for the first 3 years

\[
108 + 22 + 20 = \$150m
\]

Tokenization fee    Trading fee    Management fee    Total Token income

Turnover = \$3.2bn

13.3 Block Forging, Marketing, Legal and Technology Are the Major Costs

13.3.1 Significant Part of Income Will Be Paid to Node Owners for Forging Blocks

Every time information is recorded in the Alt.Estate blockchain (a property is tokenized, traded in the secondary market, etc.), the owner of the node that forged the corresponding block is rewarded.

As no new tokens will be created, all the rewards will come from the recycled transaction fee. We expect that on average, 1% of primary and secondary market turnover (or more than 25% of total revenue in the long term) will be distributed as rewards to node owners.

13.3.2 Alt.Estate Growth Strategy Implies Reinvestment of Net Income Into Marketing

Continuous reinvestment of profits into marketing boosts the growth of the community, turnover, and total value of tokenized assets.

Value of real estate tokenized with the Protocol and total property token turnover
14. The ALT Token Crowdsale

14.1 Crowdsale Details

- The general public will get an opportunity to participate in Alt.Estate crowdsale, where payments are rewarded with ALT tokens
- Alt.Estate will begin the onboarding on the 1st of March
- The ALT/ETH rate for the public crowdsale is 100,000 ALT per 1 ETH
- ALT tokens will be distributed on the Ethereum blockchain pursuant to a related ERC20 smart contract in exchange for the payments received
- The target crowdsale amount is $15m with a soft cap of $1m and a hard cap of $30m
- Instructions on how buyers can participate will be made available closer to the crowdsale starting date

14.2 Token Allocation

80% of all tokens will be distributed to the public. This will ensure long-term growth of the Alt.Estate Protocol:

- 60% of all tokens will be distributed during the crowdsale
- 20% of all tokens will be distributed for Alt.Estate network growth
- 20% of ALT Tokens created will be allocated to the Alt.Estate Team and Advisors

Team tokens will not be immediately tradable, further aligning team interests with focusing on the long-term goals of the company. Most of the team tokens are locked for one year (except for some advisors) and this lock-up is conditional on individual KPIs for each team member.
14.3 Milestone Plan Depends on Crowdsale Proceeds

The Alt.Estate business model is relatively capital-intensive due to the sourcing of deals, the vetting of deals, and the sourcing of capital. In order to reach each milestone, the previous milestones must be reached, and the ALT token crowdsale proceeds must exceed the indicated amount. The roadmap is drawn for proceeds equal to $30m (hard cap).
15. **Appendix 1. Risk Factors**

An acquisition of the Tokens involves a high degree of risk. Each potential purchaser of the Tokens should carefully consider the following information about these risks before he decides to buy the Tokens. If any of the following risks actually occurs, the Platform and the Protocol and the value of the Tokens could be materially adversely affected.

Risks and uncertainties described below in this Whitepaper may not be the only ones token holders face. Additional risks and uncertainties may also materially adversely affect the Project or the value of the Tokens.

### 15.1 Risks Connected To The Value Of ALT Tokens

#### 15.1.1 No Rights, Functionality or Features

The Tokens do not have any rights, uses, purpose, attributes, functionalities or features, express or implied, including, without limitation, any uses, purpose, attributes, functionalities or features on the Platform or within the Protocol. Company Parties do not guarantee and are not representing in any way to Buyer that the Tokens have any rights, uses, purpose, attributes, functionalities or features.

#### 15.1.2 Lack of Development of Market for the Tokens

Because there has been no prior public trading market for the Tokens, the Token Sale may not result in an active or liquid market for the Tokens, and their price may be highly volatile. Even if the Tokens are tradable in a secondary market, in practice, there may not be enough active buyers and sellers or the bid-ask spreads may be too wide. The Token holders may not be able to exit their token holdings easily. In the worst-case scenario where no secondary market develops, a token holder may not be able to liquidate his/her token holdings at all. The exchanges or platforms that facilitate secondary trading of the Tokens may not be regulated by the applicable laws.

#### 15.1.3 Risks Relating to Highly Speculative Traded Price

The valuation of digital tokens in a secondary market is usually not transparent, and highly speculative. The Tokens do not hold any ownership rights to Company’s assets and, therefore, are not backed by any tangible asset. Traded price of the Tokens can fluctuate greatly within a short period of time. There is a high risk that a token holder could lose his/her entire payment amount. In the worst-case scenario, the Tokens could be rendered worthless.
15.1.4 The Tokens May Have No Value

The Tokens may have no value and there is no guarantee or representation of liquidity for the Tokens. Company is not and shall not be responsible for or liable for the market value of the Tokens, the transferability and/or liquidity of the Tokens and/or the availability of any market for the Tokens through third parties or otherwise.

15.1.5 The Tokens are Non-Refundable

Company is not obliged to provide the token holders with a refund related to the Tokens for any reason, and the token holders will not receive money or other compensation in lieu of the refund. No promises of future performance or price are or will be made in respect to the Tokens, including no promise of inherent value, no promise of continuing payments, and no guarantee that the Tokens will hold any particular value. Therefore, the recovery of spent resources may be impossible or may be subject to foreign laws or regulations, which may not be the same as the private law of the token holder.

15.2 Blockchain And Software Risks

15.2.1 Blockchain Delay Risk

On the Bitcoin and Ethereum blockchains, timing of block production is determined by proof of work so block production can occur at random times. For example, the cryptocurrency transferred in the final seconds of a distribution period during the Token Presale or the Token Sale may not get included for that period. Buyer acknowledges and understands that the Bitcoin or Ethereum blockchain may not include the Buyer’s transaction at the time Buyer expects and Buyer may not receive the Tokens in this regard.

15.2.2 Blockchain Congestion Risk

The Bitcoin and Ethereum blockchains are prone to periodic congestion during which transactions can be delayed or lost. Individuals may also intentionally spam the respective network in an attempt to gain an advantage in purchasing cryptographic tokens. Buyer acknowledges and understands that Bitcoin or Ethereum block producers may not include Buyer’s transaction when Buyer wants or Buyer’s transaction may not be included at all.

15.2.3 Risk of Software Weaknesses

The concept of token smart contract which creates the mechanism of creation and distribution of the Tokens (“Tokens Smart Contracts”), the underlying software application and software platform (i.e. the Ethereum blockchain) are still in an early development stage and unproven. There is no representation and warranty that the process for creating the Tokens will be uninterrupted or error-free. There is an inherent risk that the software could
contain weaknesses, vulnerabilities or bugs causing, inter alia, the complete loss of the cryptocurrency and/or the Tokens.

15.2.4 Risk of New Technology

The Platform, the Protocol, the Tokens and all of the matters set forth in this Whitepaper are new and untested. The Platform, the Protocol and the Tokens might not be capable of completion, creation, implementation or adoption. It is possible that no blockchain utilizing the Platform or the Protocol will be ever launched. Buyer of the Tokens should not rely on the Platform, the Protocol, the Tokens Smart Contracts or the ability to receive tokens associated with the Platform or the Protocol in the future. Even if the Platform and the Protocol are completed, implemented and adopted, it might not function as intended, and any Tokens may not have functionality that is desirable or valuable. Also, technology is changing rapidly, so the Platform, the Protocol and the Tokens may become outdated.

15.3 Security Risks

15.3.1 Risk of Loss of Private Keys

The Tokens purchased by Buyer may be held by Buyer in Buyer’s digital wallet or vault, which requires a private key, or a combination of private keys, for access. Accordingly, loss of requisite private keys associated with such Buyer’s digital wallet or vault storing the Tokens will result in loss of such Tokens, access to Buyer’s token balance and/or any initial balances in blockchains created by third parties. Moreover, any third party that gains access to such private keys, including by gaining access to login credentials of a hosted wallet or vault service the buyer uses, may be able to misappropriate the Buyer’s Tokens. Company Parties are not responsible for any such losses.

15.3.2 Lack of the Tokens Security

The Tokens may be subject to expropriation and or/theft. Hackers or other malicious groups or organizations may attempt to interfere with the Tokens Smart Contracts or the Tokens in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing and spoofing. Furthermore, because the Ethereum platform rests on open source software, there is the risk that Ethereum smart contracts may contain intentional or unintentional bugs or weaknesses which may negatively affect the Tokens or result in the loss of the Tokens, the loss of ability to access or control the Tokens. In the event of such a software bug or weakness, there may be no remedy and holders of the Tokens are not guaranteed any remedy, refund or compensation.
15.3.3 Risk of Ethereum Mining Attacks

The blockchain used for the Tokens Smart Contracts is susceptible to mining attacks, including double-spend attacks, majority mining power attacks, "selfish-mining" attacks, and race condition attacks. Any successful attacks present a risk to the Tokens Smart Contracts, expected proper execution and sequencing of the Tokens transactions, and expected proper execution and sequencing of contract computations.

15.3.4 Failure to Map a Public Key to Buyer’s Account

Failure of buyer of the Tokens to map a public key to such buyer’s account may result in third parties being unable to recognize buyer’s Tokens balance on the Ethereum blockchain when and if they configure the initial balances of a new blockchain based upon the Platform and the Protocol.

15.3.5 Risk of Incompatible Wallet Service

The wallet or wallet service provider used for the acquisition and storage of the Tokens has to be technically compatible with the Tokens. The failure to assure this may have the result that buyer of the Tokens will not gain access to his Tokens.

15.4 Risks Relating To The Project Development

15.4.1 Risk Related to Reliance on Third Parties

Even if completed, the Project will rely, in whole or partly, on third parties to adopt and implement it and to continue to develop, supply, and otherwise support it. There is no assurance or guarantee that those third parties will complete their work, properly carry out their obligations, or otherwise meet anyone’s needs, all of which might have a material adverse effect on the Project.

15.4.2 Dependence of the Project on Senior Management Team

The ability of the Project team which is responsible for maintaining competitive position of the Project is dependent to a large degree on the services of a respective senior management team. The loss or diminution in the services of members of respective senior management team or an inability to attract, retain and maintain additional senior management personnel could have a material adverse effect on the Project. Competition for personnel with relevant expertise is intense due to the small number of qualified individuals, and this situation seriously affects the ability to retain its existing senior management and attract additional qualified senior management personnel, which could have a significant adverse impact on the Project.
15.4.3 Dependence of the Project on Various Factors

The development of the Project may be abandoned for a number of reasons, including lack of interest from the public, lack of funding, lack of commercial success or prospects, or departure of key personnel.

15.4.4 Lack of Interest to the Project

Even if the Project is finished and adopted and launched, the ongoing success of the Project relies on the interest and participation of third parties like developers. There can be no assurance or guarantee that there will be sufficient interest or participation in the Project.

15.4.5 Changes to the Project

The Project is still under development and may undergo significant changes over time. Although Company Parties intend for the Project to have the features and specifications set forth in this Whitepaper, changes to such features and specifications can be made for any number of reasons, any of which may mean that the Project does not meet expectations of buyer of the Tokens.

15.4.6 Risk Associated with Other Applications

The Project may give rise to other, alternative projects, promoted by unaffiliated third parties, under which the Tokens will have no intrinsic value.

15.4.7 Risk of an Unfavorable Fluctuation of Cryptocurrency Value

The proceeds of the sale of the Tokens will be denominated in cryptocurrency, and may be converted into other cryptographic and fiat currencies. If the value of cryptocurrencies fluctuates unfavorably during or after the Token Presale or the Token Sale, Company Parties may not be able to fund development, or may not be able to develop or maintain the Project in the manner that it intended.
15.5  Risks Arising In Course Of Company Parties’ Business

15.5.1 Risk of Conflicts of Interest

Any Company Party may be engaged in transactions with related parties, including respective majority shareholder, companies controlled by him or in which he owns an interest, and other affiliates, and may continue to do so in the future. Conflicts of interest may arise between any Company Party’s affiliates and respective Company Party, potentially resulting in the conclusion of transactions on terms not determined by market forces.

15.5.2 Risks Related to Invalidation of Company Parties Transactions

Company Parties have taken a variety of actions relating to its business that, if successfully challenged for not complying with applicable legal requirements, could be invalidated or could result in the imposition of liabilities on respective Company Party. Since applicable legislation may subject to many different interpretations, respective Company Party may not be able to successfully defend any challenge brought against such transactions, and the invalidation of any such transactions or imposition of any such liability may, individually or in the aggregate, have a material adverse effect on the Project.

15.5.3 Risk Arising from Emerging Markets

Company Parties or some of them may operate on emerging markets. Emerging markets are subject to greater risks than more developed markets, including significant legal, economic and political risks. Emerging markets are subject to greater risk than more developed markets, including in some cases significant legal, economic and political risks. Emerging economies are subject to rapid change and that the information set out in this Whitepaper may become outdated relatively quickly.

15.6 Governmental Risks

15.6.1 Uncertain Regulatory Framework

The regulatory status of cryptographic tokens, digital assets, and blockchain technology is unclear or unsettled in many jurisdictions. It is difficult to predict how or whether governmental authorities will regulate such technologies. It is likewise difficult to predict how or whether any governmental authority may make changes to existing laws, regulations and/or rules that will affect cryptographic tokens, digital assets, blockchain technology and its applications. Such changes could negatively impact the Tokens in various ways, including, for example, through a determination that the tokens are regulated financial instruments that require registration. Company may cease the distribution of the tokens, the development of the Project or cease operations in a jurisdiction in the event that governmental actions make it unlawful or commercially undesirable to continue to do so.
15.6.2 Failure to Obtain, Maintain or Renew Licenses and Permits

There may be various statutory requirements obliging Company to receive licenses and permits necessary for carrying out of its activity in different jurisdictions, there is the risk that new statutory requirements may be adopted in the future and may relate to any of Company Parties. Company Parties’ business depends on the continuing validity of such licenses and permits and its compliance with their terms. Regulatory authorities will exercise considerable discretion in the timing of license issuance and renewal and the monitoring of licensees’ compliance with license terms. Requirements which may be imposed by these authorities and which may require any of Company Party to comply with numerous standards, recruit qualified personnel, maintain necessary technical equipment and quality control systems, monitor our operations, maintain appropriate filings and, upon request, submit appropriate information to the licensing authorities, may be costly and time-consuming and may result in delays in the commencement or continuation of operation of the Project. Further, private individuals and the public at large possess rights to comment on and otherwise engage in the licensing process, including through intervention in courts and political pressure. Accordingly, the licenses any Company Party may need may not be issued or renewed, or if issued or renewed, may not be issued or renewed in a timely fashion, or may involve requirements which restrict any Company Party’s ability to conduct its operations or to do so profitably.

15.6.3 Risk of Government Action

The industry in which Company Parties operate is new, and may be subject to heightened oversight and scrutiny, including investigations or enforcement actions. There can be no assurance that governmental authorities will not examine the operations of Company Parties and/or pursue enforcement actions against them. All of this may subject Company Parties to judgments, settlements, fines or penalties, or cause Company Parties to restructure their operations and activities or to cease offering certain products or services, all of which could harm Company Parties’ reputation or lead to higher operational costs, which may, in turn, have a material adverse effect on the Tokens and/or the development of the Project.

15.6.4 Risk of Burdensomeness of Applicable Laws, Regulations, and Standards

Failure to comply with existing laws and regulations or the findings of government inspections or increased governmental regulation of Company Parties operations, could result in substantial additional compliance costs or various sanctions, which could materially adversely affect Company Parties business and the Project. Company Parties operations and properties are subject to regulation by various government entities and agencies, in connection with ongoing compliance with existing laws, regulations and standards. Regulatory authorities exercise considerable discretion in matters of enforcement and interpretation of applicable laws, regulations and standards. Respective authorities have the right to, and frequently do, conduct periodic inspections of any Company Party’s operations and properties throughout the year. Any such future inspections may conclude that any
Company Party has violated laws, decrees or regulations, and it may be unable to refute such conclusions or remedy the violations. Any Company Party’s failure to comply with existing laws and regulations or the findings of government inspections may result in the imposition of fines or penalties or more severe sanctions or in requirements that respective Company Party cease certain of its business activities, or in criminal and administrative penalties applicable to respective officers. Any such decisions, requirements or sanctions, or any increase in governmental regulation of our operations, could increase Company Parties costs and materially adversely affect Company Parties business and the Project.

15.6.5 Unlawful or Arbitrary Government Action

Governmental authorities may have a high degree of discretion and, at times, act selectively or arbitrarily, without hearing or prior notice, and sometimes in a manner that is contrary a law or influenced by political or commercial considerations. Moreover, the government also has the power in certain circumstances, by regulation or government act, to interfere with the performance of, nullify or terminate contracts. Unlawful, selective or arbitrary governmental actions have reportedly included the denial or withdrawal of licenses, sudden and unexpected tax audits, criminal prosecutions and civil actions. Federal and local government entities have also used common defects in matters surrounding the Token Sale as pretexts for court claims and other demands to invalidate or to void any related transaction, often for political purposes. In this environment, Company Parties competitors may receive preferential treatment from the government, potentially giving them a competitive advantage over Company Parties.