Impact Report

Blockchain Technology and Housing Sector

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R&D Grant Proposal

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Project overview

This research project aims to investigate the transformative potential of blockchain technology in reshaping the housing economy. The rising interest in applying blockchain technology to real-world assets [1], particularly in the field of real estate [2], has led to the emergence of numerous startups. Two prevalent solutions have emerged: fractional ownership of real estate through the tokenization of property registrations and the utilization of blockchain's transparency and immutability to verify asset ownership [3]. Notable example such as Lofty [4] securing substantial investments from venture capitals.

Beyond the business sphere, the cryptocurrency community has been establishing physical communities and neighborhoods, exemplified by initiatives like CityDAO [5], CabinDAO [6], and Traditional Dream Factory [7]. Visionaries, such as Balaji, have proposed radical concepts like a 'networked state' enabled by blockchain technology, while public-good crypto enthusiasts and environmental advocates have called for comprehensive land reforms through blockchain technology. Initiatives Partial Common Ownership Token [8] by Ethereum community and radical change, aiming at break free from the traditional private-public property economy model creating plural property systems.

Despite these scattered efforts in the crypto field, there is a lack of comprehensive research examining the profound impact of blockchain technology on housing and land. Yet, these domains lie at the heart of every society, presenting an opportunity for blockchain technology to exert significant influence in a new domain. In this research we delve into the fundamentals of the housing, real estate and land sectors, comprehensively investigate the impact of blockchain technology, and provide insights into its potential to reshape these domains.

***Keywords*: housing economy, land ownership, real estate, sovereign land, real-world asset,**

Research work packages

In order to reach the above stated overarching research goal, we break down the work into the following three main work packages.

WP1 The system and matrix of housing

To establish a comprehensive understanding of the housing sector's structure and dynamics in a system perspective along geopolitical and time dimensions.

WP1.1 The housing policy and ownership by nation

Obj. To examine the diversity of housing policies and ownership models across different nations.

- Identify and categorize housing policies in a representative set of nations.
- Analyze the different forms of housing ownership prevalent in these nations.
- Summarize the implications of policy and ownership on the housing sector's stability and performance.

WP1.2 The housing market and economy by time dimension

Obj. To investigate how the housing market and economy have evolved over time.

Milestones

- Gather historical data on housing markets and their economic impacts.
- Identify and analyze key events and trends that have shaped the housing market's history.
- Draw conclusions about the market's resilience and adaptability in response to economic shifts.

WP2 The crypto thesis on housing

To explore the various crypto-driven approaches and ideologies that influence the housing and real estate sectors.

WP2.1 The thesis of real world asset

Obj. To investigate how blockchain technology is applied to real-world assets in the housing sector.

- Define the characteristics and implications of blockchain technology as it relates to real-world assets.
- Examine case studies of blockchain applications in the housing sector, focusing on asset tokenization and ownership verification

WP2.2 The thesis of public good

Obj. To study the role of blockchain technology in advancing the concept housing as public good.

- Define the concept of 'public good' as it pertains to housing and real estate.
- Investigate initiatives or projects in the housing sector that emphasize public benefit enabled by blockchain.

WP2.3 The thesis of radical reform

Obj. To explore radical reform ideas related to housing and land supported by blockchain technology.

- Investigate the emergence of blockchain-backed initiatives aimed at achieving radical reform.
- Assess the potential societal and policy implications of these reform efforts.

WP3 The way forward

To chart a course for the future of blockchain technology's role in housing, real estate, and land management.

WP3.1 The future demand

Obj. To identify and analyze the various forces shaping the future demand for blockchain technology in housing, real estate, and land management based on the result from **WP1**.

- Analyze market trends and economic indicators that drive the need for innovation in these sectors.
- Investigate the influence of housing policies and regulations on the adoption of blockchain solutions.
- Consider public policy and community engagement in shaping future directions.

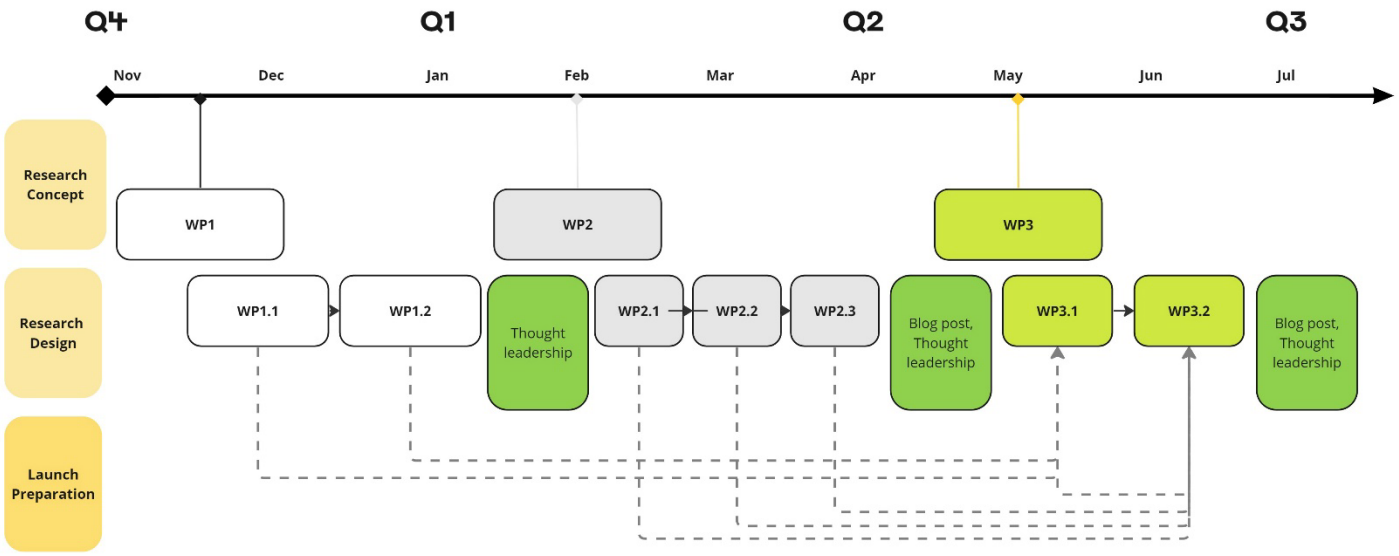
WP3.2 Blockchain levers

Obj. To define and explore the specific blockchain levers that can be utilized for transformative change in housing sector. We use the 12 system change levers by Donella Meadows [9].

- Categorize and define the key blockchain technologies and features relevant to housing, real estate, and land management based on the result of **WP2**.
- Identify levers can be harnessed to address the demands and needs identified in **WP 3.1**.
- Propose strategies for optimizing and integrating blockchain solutions within these sectors.

Timeline

The estimated research period is from November 6 to July 1st (30 working weeks)



Note: *This timeline provides a rough structure for the research project. It's essential to continuously adapt and update it as you progress. The start date varies depends on the application and grant allocation process. Depending on the complexity of the research and expected outcome, the timeframe might varies too.*

Grant budget

Title	Unit Price (CHF)	Time (hrs)	Addition	Cost (CHF)
Research Salary	80	150		12,000
Data Acquisition	200	5		1,000
Travel Expenses	-	-	Est. flat rate	1,000
Publication Fee	-	-	Est. flat rate	1,000
Overhead	-	-	Est. flat rate	1,500
Total				16,500

Note: *This table provides a clear breakdown of estimated costs for each expense category in your research budget. Please keep in mind that these are approximate figures, and actual expenses may vary depending on specific circumstances and the scope of your research project.*

References

[1] Laurent P, Chollet T, Burke M and Seers T 2018 The tokenization of assets is disrupting the financial industry 6

[2] Saari A, Vimpari J and Junnila S 2022 Blockchain in real estate: Recent developments and empirical applications *Land Use Policy* **121** 106334

[3] Deloitte 2017 Blockchain in commercial real estate: The future is here!

[4] Anon Lofty | Future of Real Estate Investing

[5] CityDAO CityDAO

[6] Anon Cabin DAO

[7] Anon Traditional Dream Factory

[8] Anon Partial Common Ownership Tokens (PCOT) *Partial Common Ownership Tokens (PCOT)*

[9] Donella M 1997 Leverage points, places to intervene in a system

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