

PART 1: The Innovation Bank (<500 words)

Purpose:

The purpose of the “The Innovation Bank” is to create an environment where STEM professionals and STEM practitioners may collaborate as decentralized semi-autonomous units as a means of combating viral threats and systemic risks.

Problem Statement:

STEM professionals and STEM practitioners do not have direct lines of communication with each other.

With respect to COVID-19:

- E.g., millions of plumbers, HVAC and building maintenance professionals serve millions of citizens in and around their homes and work places.
- Each environment is different, complex, and often combine multiple systems requires the ability to innovate in real time.
- The ability to access the right knowledge at the right time and the right place - fast and at scale - is required to proactively respond to COVID19 pandemic and other widespread systemic risks.

Industry Background

The “Built Environment”

- Buildings, machinery, and infrastructure for which a permanent physical manifestation exists.
- Inter-related, but distinct from the artistic, the financial, or the political environment.
- Tradeoff between economic health and public health is largely played out in the built environment.
- The Built Environment is the domain of STEM professionals and practitioners.

The Innovation Bank (Definition)

A secure, validated, and decentralized data repository and data access system regulated by the use of a blockchain and game incentives rewarding a set of intended behaviors among participants while disincentivizing trivial, irrelevant, or malicious activity.

The Innovation Bank Operations

- Knowledge assets are curated in the form of claims and corresponding validation transactions among diverse STEM professionals
- Transactions are memorialized with the distribution of cryptographic “game tokens” awarded to participants.
- The aggregate transaction records forms a network of nodes and branches that reveals important trends and business intelligence.
- The platform is funded by the trade of tokens on an open exchange.
- Third party access to valuable business intelligence requires the expenditure of game tokens.
- STEM professionals may liquidate their tokens for other items of value on an open exchange.
- The Innovation Bank draws commission on token uptakes and expires the balance of redeemed tokens, thus restraining supply to optimize pricing stability.

Current Business environment:

- STEM professionals and practitioners do not have complete access to all information required to address unique systemic threats that impact real people in novel, highly localized, and day-to-day basis.
- The STEM professionals and practitioners are mutually segmented from each other by centralized organizational structures such as competitive enterprise, bureaucratic institutions, and adversarial law.

Proposed Solution:

- STEM solutions propagate on centralized organizational structures.
- Viruses propagate on a far-more efficient structure: “Network Effects”.

Solution: reorganize STEM Professionals by more efficient “Network Effects”, i.e.,
decentralized semi-autonomous units

Achievements and milestones:

- Creation of a prototype blockchain that produces blocks and creates tokens.
- Extensive publications, Lectures, and peer-review.
- Team experience includes multiple iterations, start-ups, publications, conferences innovation awards my major societies, corporations and academics.

Conclusion:

Project is ready for alpha testing in the University Environment.

PART 2: Team:

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PART 3: Business Plan (<500 words)**Objective:**

\$50,000 dollars will be required to launch prototype Innovation Bank to select University Campuses.

Market

- STEM Products are often referred to as “soft costs” with a large financial gap that must be financed before any revenue may collected from the built asset.
- The market for STEM professionals and STEM Practitioners is constrained by the pre-requisite need for advance public or private funding.
- The formation of a “soft market” for cryptographic game tokens will help neutralize the “soft cost” period revealing a more efficient market for knowledge assets.

Marketing Plan

- Initial marketing will target campuses of universities with active research programs through the office of technology transfer (or equivalent).
- Initially, The Innovation Bank would be applied to university STEM research.
- Market readiness levels (MRL), Technology readiness levels (ITL), IP readiness level (IRL), Legal readiness levels (LRL), will be advanced through corresponding engineering school, business school, and law school curriculum, and private industry – as a web of claims and validations.
- Formation of claims and validations creates a localized map of STEM networks from which aggregate business intelligence may be monetized.

Operations:

- A simple autonomous blockchain has been developed using an efficient proof-of-stake (POS) consensus mechanism.
- Punitive controls are minimized since each participant is incentivized to gain “stake” in the system, and disincentivized to exploit the system.
- Administrative controls are minimized as the blockchain will provide immutable record of time, frequency, and distribution of validated claims.

Governance:

- The Blockchain itself will be governed by “Witnesses Nodes” comprised of select universities, institutions, or individuals based on retained “stake” as determined by their individual token holdings.
- This assures that a monopoly position cannot be attained by a single witness and thus decentralization is assured.

Management Summary: CoEngineers, PLLC

- A professional engineering firm positioned at the intersection of STEM Professions and STEM practitioners.
- Serve as lead witness node driving the creation, development, and growth of the Innovation Bank.
- Serve as a bridge between existing centralized institutional organization and the proposed decentralized organizational structure.

Revenue Model:

- Operates entirely on accounting, storage and exchange of internal game tokens.
- Monetization occurs through the free market exchange of game tokens “minted” by the STEM Community.
- Third party acquisition of tokens is required to access valuable trends, metadata, business intelligence and solutions to novel problems associated with COVID19 and systemic risks.
- The exchange rate between game tokens and other forms of value is established through the supply and demand for tokens.
- Operational funding will be taken as a commission at token uptake.

Growth Plan:

- A Blockchain is comprised of Software and thus can be scaled indefinitely at low marginal cost.
- The growth model is defined by Metcalfe’s law – the value of the network will increase exponentially as a function of the number of nodes.
- Participants self-promote on Social Media as a means of finding each other for the purpose of minting more tokens.

Financials:

\$50,000 dollars will be required to resurrect the prototype blockchain and deploy the alpha test sites to several volunteer university programs.

- \$30,000 Development costs
- \$20,000 Marketing costs