

SMART ECOLOGIES

AN APPLIED ECONOMIC
FRAMEWORK THAT UTILIZES
THE BLOCKCHAIN TO DEVELOP
VALUABLE ALTERNATIVE ASSET
CLASSES + SUSTAINABLE
INFRASTRUCTURES

ABSTRACT

 **novena**
CAPITAL

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Introducing Smart Ecologies:

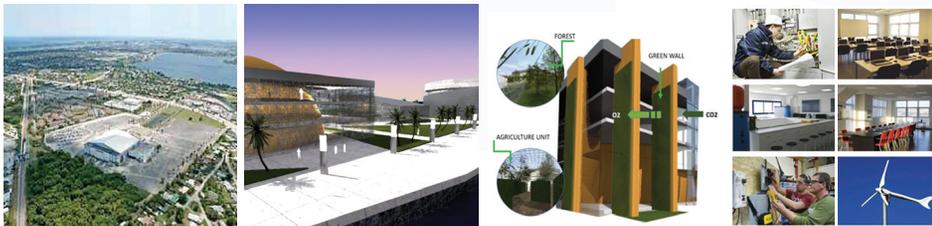
Executive Summary

Smart Ecologies is an economic framework that focuses on the development local ecosystems that can flourish at scale with the integration of blockchain technologies.

It takes assets like real estate developments, natural resources, civic utilities + technology solutions and creates viable ways for communities in partnership with institutions to innovate through highly inclusive, collaborative processes. In doing so, they can immediately improve living + working conditions as well as identify areas of critical impact.

The blockchain, and its next generation protocols, plays an important role in this evolution. While the majority of blockchain offerings focus on transactional value, Smart Ecologies enables the expansion of alternative assets such that exchanges of real, sustained value can be made.

If one considers that resource inaccessibility is the cause of substantial economic outcomes - often outcomes that tend not to benefit a wider array of stakeholders and local communities - then Smart Ecologies is an opportunity to reframe economic conditions alongside of effective operational models. It applies solutions that are necessary for economic revitalization, primarily by providing new, adaptive infrastructures. More immediately, it offers to investors the chance to make much smarter investments while greatly mitigating risk.



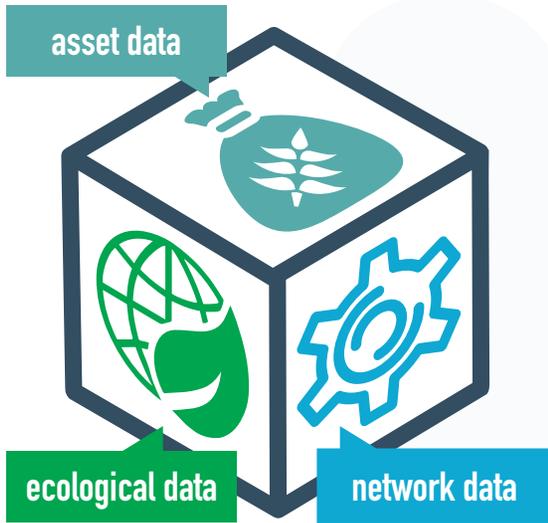
The Smart Ecologies thesis features a use case that addresses several key areas:

- The identification of a mixed use + adaptive reuse opportunity (a distressed land asset)
- The development of ecological products and services, with agricultural, renewable energy + educational components
- The strategic integration of custom blockchain technologies to develop real civic + commercial utilities
- The development of new asset-backed cryptocurrencies - complementary currencies, tokens and the like
- The ability to enable a spike in local labor force participation rates and sustained job growth
- A means to establish and measure multiple forms of value for a wider array of stakeholders
- A means to develop governance and leadership that are reflective of real socio-ecological needs
- A way to create new micromarkets out of those needs, which regenerate both value and revenue
- A way to provide institutional funds as well as private investors with transparent data so that (re)investment is highly opportunistic

Trillions of dollars are available around the world for alternative solutions to very complex economic challenges.

Novena Capital sees Smart Ecologies as a highly functional path forward to expand the global market capitalization of alternative asset classes from \$8 trillion to \$25 trillion by 2023.

As a group that designs, develops and helps capitalize infrastructural alternatives, we look forward to working with you in seizing upon the amazing possibilities this emerging space offers us.



(set of transactions)

BLOCK

A **block** is a container data structure.

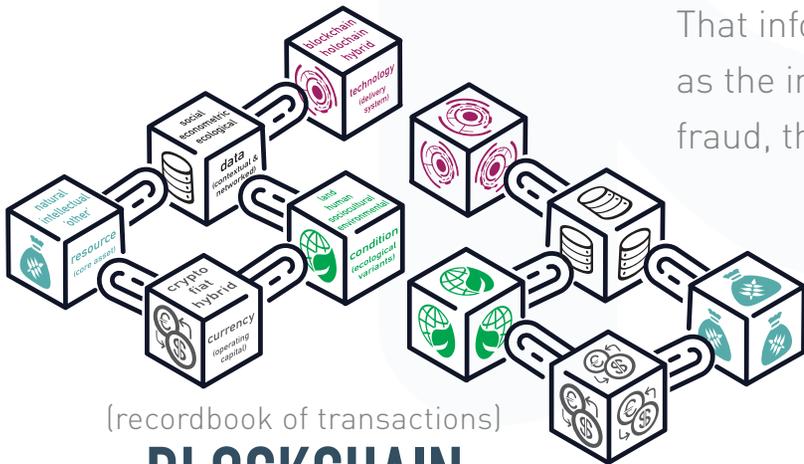
Each block stores an amount of transactions that are hashed (demarked) and recorded in a timeline.

A **blockchain** is a set of blocks which are hashed and recorded in a timeline, such that a recordbook of those transactions, along with their respective data, can be stored and (re)distributed.

Think of **blocks** as encrypted records, and **chains** as ledgers for those records.

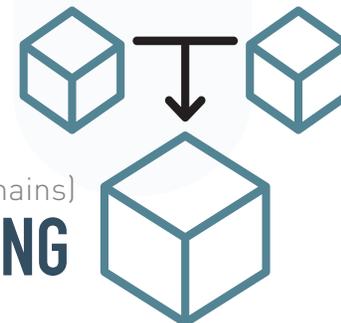
Blockchains, therefore, allow databases and the people operating alongside of them to transact or interact seamlessly. **This is novel because assets, information and people's intentions can be bundled and shared without third parties, and those interactions can provide clear value.**

That information can be shared while protecting personal identities as well as the information accompanying them. In a world of cybertheft, secrecy & fraud, this is evolutionary.



(recordbook of transactions)

BLOCKCHAIN



(formation of chains)

LEDGERING

Now think of **money** as having these attributes - **assets, information & intentions.**

Money is now more than a piece of paper, a coin, or a lending agreement.

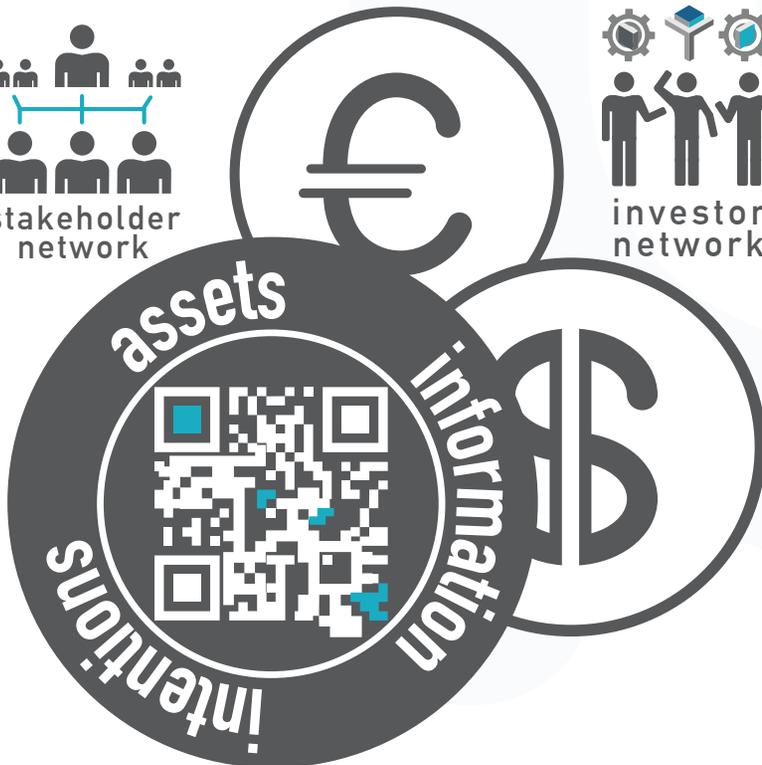
With new social & ecological agreements, money becomes something more: **real currency.**

A **current of value** that you can actually see and exchange beyond just a transaction.

So a **cryptocurrency** is a digital currency that can have multiple stores of value and mediums of exchange.

This evolution in money transforms the way we transact and invest because we can see markets, and the people operating within them, for what they really are:

living ecosystems that are constantly changing.



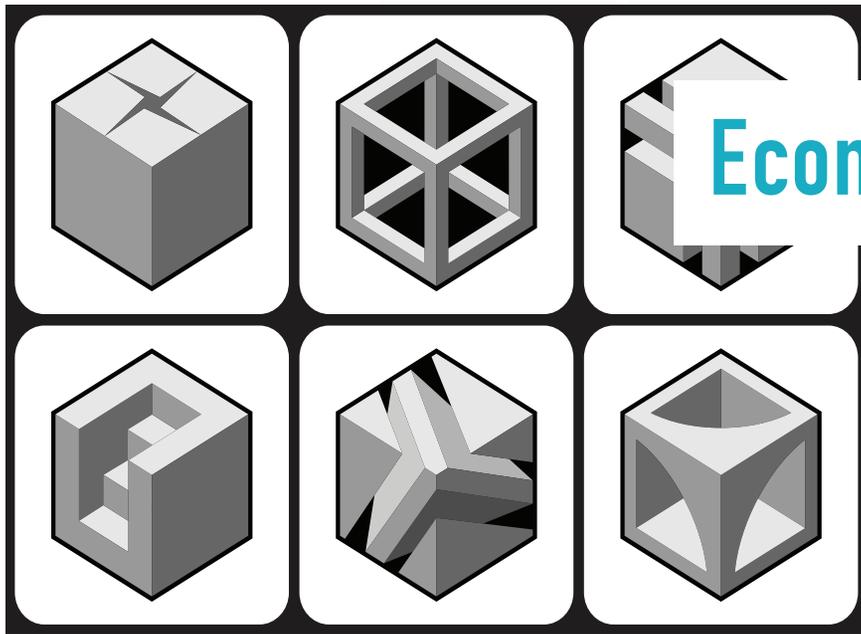


Imagine...

Basic assets like land are turned into thriving ecosystems.
Necessary resources are created & regenerated.
Jobs are created to develop & manage those resources.

In doing so, stable economic conditions are established.
Those conditions allow for integrated scale.
Revitalized local economies fuel strong national economies.

We're not far at all from this
reality with the blockchain.



Economic rationale.

Any economy, local or global, needs one primary element to flourish:

resource + investment accessibility.

We see the blockchain as an opportunity to evolve resource creation while encouraging the (re)distribution of alternative assets in order to expand economic prosperity. The blockchain can also help create a huge amount of access to, and transparency around, alternative asset classes which will ultimately mobilize trillions of investment dollars around the globe.

The great crypto opportunity gap.



most currencies are bank debt.

most digital currencies are speculative.

fiat (like the USD) is in aggregate decline.

real asset-backed currencies are needed.

local currencies can revitalize national ones.



social & ecological contracts

(civic to commercial value)

'cryptofiat'

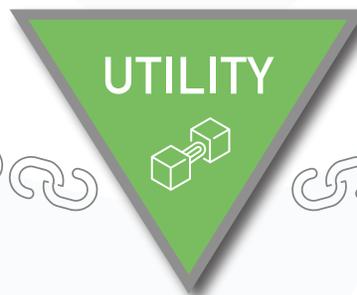
real utilities provide a balance between

currency value and hard asset value.

blockchains can bundle currencies with

assets & provide relevant data, sustaining that

value, or resetting it.



applied uses for things
people actually need

(socioecological value)

'crypto-utility'

more than 70% of known/available
resources on the planet are owned by

147 multinational corporations.

aggregate asset value is in decline.

local resource production is critical.



vital resources - food, land,
energy, water, etc.

(commercial to civic value)

'cryptoassets'



Introducing Smart Ecologies.

Smart Ecologies is an approach to the design of living + working ecosystems that sustain themselves through blockchain innovations.

Here is a preview of a use case, based on a real world project.



SMART ECOLOGIES

SMART ECOLOGIES

a regenerative economic platform (co-design & advisory)

1



2



3



4



“FLORIDA MIXED USE PROJECT”

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