mezzònomy Business Plan

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# Mezzònomy Value Proposition

Mezzònomy has developed a full proofed blockchain technology which is an alternative to the Bitcoin technology and can be deployed as a private blockchain in any organization which needs to deploy the blockchain to deliver breakthrough applications.

Mezzònomy provides better levels of security than the Ethereum technology which has now evolved in two competing standards since its forking.

The Mezzònomy technology is very simple to deploy as it is fully W3C compliant and thus can be mastered by widely available programming resources as it only requires W3C programming skills: XML, XSL, HTML, CSS.

# Opening the way to the blockchain democratization

Blockchain systems allow their information ecosystem to deal with time, proof and security with unique and disruptive capacities.

mezzònomy’s hypertext is a fully W3C compliant blockchain platform able bring to its customers both the capacities of blockchain and the capacities of web services. In mezzònomy’s technology,

* any blockchain node is also a web server which can be accessed by a great number of users through any web navigator. Mezzononomy is already fully usable using Chrome, Firefox or IE.
* any user feedback is a potential coin, with mezzònomy any web page permits to add theses coins to the distributed ledger according to the position and the intent of the user.
* any elaboration of contents and its associated monetization and diffusion control, both in space and time, can be addressed by the technology.

# Mezzònomy key differentiators

## Bring the power of blockchain to your web services

No expert programming skills are required when deploying a mezzònomy blockchain – contrary to blockchain applications built on top of Bitcoin, Ethereum and HyperLedger technologies.

With common resources able to deal with W3C standards used in existing web services, the power of the blockchain can be brought to any web service, with massive reuse of your existing digital assets.

## Fully W3C compliant blockchain platform

Since its foundation in 2008, the mezzònomy paradigm relies on the W3C programming: XML, XSL, HTML, CSS. The fundamental facts over this technology are:

* To give access to the blockchain world in this W3C context, mezzònomy provides a tag to manage time hyperlinks and an attribute to manage space hyperlinks – any hyperlink being bidirectional and “*can be followed from all endpoints*”.
* Any user feedback is coined as set of XML elements, with a given number of time hyperlinks and a given number of space hyperlinks.
* Any application is an XSL, managing both the blockchain verification and the dynamic HTML/CSS web page for a given user position, intention and behavior.

# The Mezzònomy technology

## A decade of research leading to a patented technology

### A decade of research

Mezzononomy is the result of a decade of research on the algebraic foundation of computing leading to an alternate graph theory extending XML to a semi-structured space-time network, the hypertext. The foundation problem addressed by the hypertext in 2008 was to allow dozens of communities of hundreds engineers, with different skills and languages, to reach consensus over the parametric definition of the complete structure of a plane, with the help of numerical simulations.

### A patented technology

In 2010, mezzònomy was granted a patent for a descriptive programming method for “*story-machines*”, a blockchain precursor, showing how these kind of machines reduce the cost of deploying and maintaining office-made “*spreadsheet applications*”. In 2011 mezzònomy developed a complete prototype called “*MIRZA*” funded by love-money. But at the time, blockchain concepts were not vulgarized, and the gap with blockchain was too high.

### A technology proofed in complex environments: the engineering sector

After several proof of concepts in the engineering sector in the interval, and prominently the “*Preferences*” wizard factory of the SCILAB v5 in 2012, mezzònomy developed in 2014 a complete “*process builder and player*” dedicated to parametric problem simulation and optimization.

In 2015, mezzònomy brings an innovative and intuitive way to deal with the *“cooperative and peer-to-peer controlled edition of an open text*” identified as the most complex everyday cooperative problem. At that stage, blockchain was adopted as the standard protocol to obtain data equilibrium over a set of nodes.

## Key technical differentiators

### Any feedback is a potential coin

Imagine now the following situation, Mr Guruhimself contributes to a specific contract clauses that is recognized as solid, strong and sound by many.

As no feedback is ever mechanically reproduced, the value of that feedback remains in time as a coin. The system guaranty that the value of that coin will be reverted to Mr Guruhimself.

The system provides a default monetization process based the Shapley value which give a number to each feedback using a linear formula based on the hypertext network.

From regular offering, the system allows to any team elaborating a content to define their own monetization process based on their strategy, their intention or any specific commercial, availability or exposure constraints.

### Liquid feedbacks and privacy control

Any feedback from any user is recorded as liquid in the hypertext – inputs, drag’n drops, clip’n views.

But these feedbacks are not all meant to embed meaning stored for eternity as coin in the *corresponding blockchain.* Many of them could be transient and/or have a more precisely controlled privacy.

Liquid can ”*become*” solid but may stay in this state as long a corresponding human consensus has not been reached. When the desired consensus is reached, the liquid will then be sealed and will become solid.

Liquids were introduced in 2015 for, and are necessary in, solving in a fluid and intuitive way the issue of the cooperative edition of open texts.

Privacy application of liquids may rise when several parties are in a negotiation process around a content, whatever its form. Some parties may need to exchange information linked to the context with a tight privacy control.

In case of anticipations for example, the privacy is essential to the value of the exchanged information.

### Independence from crypto-currency

The mezzònomy platform allow to create as many blockchain as needed, as history record of any file elaboration of the global machine. For any file of the machine, it is possible to get that history, and this file has been purchased, the repartition of the price between the contributors, based on the Shapley Value.

As all feedback shall not be eternal and world-wide, not every blockchain is expected to have global exposure. Some of them may be private (or corporate), some may concern a fixed set of instances around the globe, and some, can be public.

Any blockchain in our platform came with an “*Architect*” – Lite, Regular or Full depending on the purchased offer. This application which allows its users, called the “*engineers*” to reach peer-to-peer consensus to fix the cost parameter of a given blockchain with respect to its controlled exposure and desired availability.

The systematic usage of crypto-currency is thus not necessary.

This fluidity of the economic model has two major advantages:

* reduces the costs of operating a blockchain if its exposure does not require the crypto-currency strategy to provide security.
* Adapt the economic model to the users, not only to secure the federation perspective without third parties, but also to provide suitable offers for private sector companies and also for public sector organizations.

### Embedded invoicing capabilities

The link with crypto-currency is not a key to our platform, but the link with money and currencies remains organic to the blockchain, providing that any feedback is a potential coin.

Therefore, the mezzònomy platform includes a built-in feature to embed invoicing activities with standard currencies and common banks. This mechanism is based on the principle that a banking is very close to a drag’n drop. Using the 7 letter free code in any banking transactions, we can provide a 10⁻¹² banking oracle to monetize any activity on the hypertext.

Regular users can develop sophisticated invoicing mechanisms based upon any activity model mixing usage and access, as information being available in the hypertext – a lite revenue model based on the Shapley Value is provided.

This banking mechanism can be extended to the use with crypto-currency when it is meaningful with regard to the exposure of the considered application based upon the mezzònomy platform.

### Security, DDOS, Hacking, KYC

The mezzònomy platform is solid against the following kind of attack

* Distributed Deny Of Service (DDOS): all the nodes and any user of a given machine are known by the machine and have to be accepted by the engineers in charge of it. And even if that kind of attack succeeded, most of feedbacks needs validation by multiple peers to become solid. If fake feedbacks were submitted in mass, human consensus on this situation has very little probability to freeze them, more likely to launch an alert to engineers while they are liquids.
* Hacking of a node: the data stored as file in a node to speed-up the data equilibrium at restart are encrypted with a random deterministic method on the process launcher identification (RDM). The public key is stored on the network representation and used by other node to communicate with that node.
* Know Your Customer (KYC): in the data equilibrium representing the story of the human feedback to the machine, there might be private data. It is under the responsibility of engineer to forbid the transmission of these data when providing partial sharing of their data with third parties. This is insured by their consensus when authorizing the partial sharing. There might be errors, but they will not be the responsibility of the machine, but of the engineers who sign the authorization.

### Partial Sharing

From the data equilibrium, representing the common machine history of all feedbacks, any node can compute content, any content is the result of a partial sharing of the history.

The HTML page provided to the user are an example of that partial sharing. On the screen of the user, only a computing over that history is given, the history itself is not readable to a human.

For static contents, such as documents, the hashing of the content allows to recover the history of the document, its proof of work, which gives its value, and which makes this content opposable in court, with already a stronger value than paper. There is no possible may for a machine to mimic the human cooperative elaboration of a document.

For dynamic contents, such as applications or smart-contracts, the content itself has a value out of the system history. These dynamic contents are transmitted to third parties in an obfuscated form – a compiled tree automaton, and have an expiration date which corresponds to the time they were purchased.

### Scalability

The mezzònomy technology includes InterPlanetary File System (IPFS) capabilities meaning that all generated contents to third parties are not systematically duplicated on all the system nodes. The produced content are indeed duplicated but not on all nodes. The number of duplications is determined by the IPFS in order to ensure the blockchain resilience.

# The Mezzònomy product Line

## Offering levels

As previously said, this technique has been thoroughly checked against numerous cooperative issue since 2010.With the help of our mathematical foundations and our experience of its use, three level of application complexity have been identified, corresponding to different offer level:

* **Lite:** same complexity as today blockchain applications
* **Regular**: full implementation of smart contracts
* **Full:** extension to unstructured and complex documents (open texts, videos and images)

## Lite applications

Lite applications is the complexity level reached by today blockchain applications.

1. Each lite transaction is composed of few elements and one time hyperlink.
2. The common “*lite web page*” has the appearance and behavior of a “*wizard*”, an interactive sequence of forms.
3. The “*lite common feedback*” is composed of a click and/or an input possibly leading to the unfolding of the wizard.

Lite Applications covers mainly:

* All standard blockchain applications based on monetary transactions and compensation.
* These transactions can be expressed both in standard currencies and in complementary ones, including those representing a quantity of work power.
* This includes most of corporate data management, from human resources, inventory management, payment and accounting.

Note that the definition, test and maintenance of a lite application is not a lite application, and therefore, with the lite offer, application providers uses external means, like GitHub, to provide and bill their applications.

## Regular applications

Regular applications is the complexity level claimed by most blockchain applications trying to extend Bitcoin to ecosystems, such as Ethereum and Hyperledger. But in the field, there is matter to discussion. Our hypertext algebra gives a string and sound characterization of what a regular application is:

1. Each “*lite transaction*” is composed of few elements, two times hyperlinks and one space hyperlink.
2. The common “*regular web page*” has the appearance and behavior of a “*spreasheet*”, a set of related and dynamic formulas.
3. The “*regular common feedback*” is the “*drag’n drop*”.

Expressive power of regular applications is way ahead those of lite applications.

Regular applications concerns mainly:

* planning, evaluation and control of intricate flows of goods, commodities, money, computing and knowledge.

This encompasses most of “*smart-contracts ecosystems*”.

With the regular offer, any contract can be derived from a template, and adapted to a particular need or strategy, by the end-user. The regular system is able to unfold that smart-contract, generally this unfolding is a lite application.

Note that the test and maintenance of a regular application is a regular application and therefore, with the regular offer, application providers uses internal means, to deploy, control and bill their applications.

## Full applications

Regular applications is the complexity level claimed by most blockchain applications trying to extend Bitcoin to ecosystems, such as Ethereum and Hyperledger. *But in the field, there is matter to discussion.* Our hypertext algebra gives a string and sound characterization of what a full application is:

1. Each “*full transaction*” is composed of few elements, three times hyperlinks and up to two space hyperlinks.
2. The common “*regular full page*” has the appearance and behavior of a “*editor*”, an open space to any contribution.
3. The “*regular common feedback*” is the “*clip’n view*®”. This operation behaves exactly as “*cut’n paste*” but without any mechanical reproduction of content. mezzònomy is granted of a patent issued in 2010 over a “*Method for partial learning sharing of a software application*” exposing that mechanism.

Full applications can blockchain any cooperative and peer-to-peer controlled edition of any documentation system, both on:

* Unstructured contents include open texts, videos and images.
* Structured contents includes any kind of databases.
* And any mixture of them, called *semi-structured content*, like XML.

Hypertext applications are XSL, which is an XML dialect. Therefore, all the application providence process can, itself, embedded in a full application. With the full offer, application providers uses a mezzònomy application called “*Forge*” to any dimension of their activity – specification, design, elaboration, test, deployment, maintenance.

Full applications have also an impact on the “*smart-contracts ecosystems*”. A full application managing smart-contracts,

1. does need templates – a full application can build smart-contracts from scratch.
2. can make crossover over existing – a full application can build a smart-contracts by composing feature of two (or more) different existing contracts.

These features lead to what can be truly called an “*ecosystem*”.

# Mezzònomy RnD roadmap

## Product Roadmap

Mezzònomy plan to provide a set of:

* Development tools
* Administration & supervision

In 3 stages described as follows:

|  |  |  |
| --- | --- | --- |
| **Offering** | **Development** | **Administration & supervision** |
| Lite | **N/A** → GitHub | **Wizard** |
| Regular | **Composer** | **Architect** |
| Full | **Forge** | **–** |

## RnD Effort

The RnD team will grow from 5 to 70 RnD engineers

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **2017** | **2018** | **2019** | **2020** | **2021** |
| FTEs | 5 | 18 | 40 | 51 | 70 |
| RnD (k€) | 468 | 1 148 | 1 564 | 1 742 | 1 840 |

# Market analysis

The investment in blockchain companies had grown 232% from 2012 to 2016: the total amount of blockchain investments accounts for 497 MUS$ in 2016 (source CoinDesk).

## Areas of investment

Investments are done mainly in the financial area for applications like:

* Finance
* Crowd funding
* Mobile payments
* Money transfer
* Money flow management

## Market maturity

The two main factors slowing the growth of the blockchain development are:

1. The lack of market education both on the business side and technical side
2. The lack of market standard for the public blockchain

# Mezzònomy markets

Mezzonomy will address primarily markets which involves a lot of “reconciliation” processes and decentralized high value document sharing.

These markets are:

* The **logistic** market
* The **e-health** market
* The **audit** market
* The (co-)**engineering** market

# Mezzònomy GO TO markets

The GO TO market has to primary objective to increase the notoriety of the platform:

* Targeting the **blockchain ecosystems** in the key geographies in a **viral** approach:
  + through a collaborative web site as a demonstrator of the capacities of the platform

The key geographies are:

* **Europe and Middle-East**: France, Germany, UK, Israël, Italy, Eastern europe
* **Asia-Pacific**: Singapore, Australia, Honk-Kong
* **North America**: East Coast, West Coast

# Mezzònomy Pricing Model

Our target is to reach an economical model allowing to set a price by customer depending of its position in an acceptance process and the size of its machine.

For any phase there are three kind of costs:

* **Application**
* **Platform**
* **Infrastructure**

We focus here only on core mezzònomy revenues: **Platform**.

Our purpose is to promote Platform spreading and notoriety. Platform price should not be a barrier to advance in the acceptance process.

## Acceptance process

Any customer will pass three stages:

1. **Approach:** the customer has no experience and a fuzzy vision of the platform. He might have some not-so-good experience with our blockchain competitors. This is very tricky phase, because needs and expectations may be far from the truth. By experience, we known that the viral approach and the door-to-door approaches have pros and cons, and both legs may be needed here. Whatever the customer comes from, its achievement in this phase is a **Proof-Of-Concept**. *Product billing must be reduced here to a minimum, possibly free.*
2. **Acquisition:** The customer has has a POC and wants to deploy it. He must purchase the Regular Architect and the components (or applications) used in his applications. All these products are purchased for a given amount of time. In our economic models, we took a monthly cost, but in real life, the amount of time purchased can be less or more. Whatever customer’s past, its achievement in this phase is a **Private Application**. *Product billing climb to their value giving the cost of the applications.*
3. **Autonomy:** The customer has become an **Application Provider**, he can with Forge make his own application, and deploy it with Architect without any contact with us, except platform income revenue. These applications can be for his own needs or for its client needs. It is the responsibility of the customer to determine the exposure and availability of that application, and (possibly) its billing and economic model. Architect comes with all the tools to secure that phase with templates and procedures.

## Mezzònomy product revenue streams

To start with, the solution will provide a proprietary blockchain until it will be widely used as a public blockchain or declared a W3C standard. Applications requiring data privacy will rely on the provider of the RDM, and mezzònomy will remain a RDM provider even when the machine scheme is made public. The potential different ecosystems will be able to exchange partial sharing.

Mezzònomy billing model will be based on the invoicing of three kind of items:

* **connections**
* **components**
* **applications**

## Connections

The first item billed by mezzònomy are **connections between nodes**, through the use of the embedded billing system.

The price is set in relation with the spreading of a given machine by unit of time. The economic model is to bill in proportion of the logarithm of connections between node.

When a node is alone, they are no charges. But a single node offer a limited security on failure, and the number of simultaneous users is limited for a single node, and therefore a single node can not provide any commercial application. But for educational and “*proof of concept*” purposes, it is sufficient.

## Components

mezzònomy also provides the components needed by the application builder. All standard components known to HTML can be used without charges.

* **Lite Quantity**: An entry managing units, both for monetary and scientific purposes
* **Lite Drawer**: a parametric and dynamic chart widget
* **Regular Cell**: An “*entry*” managing drag’n drop and evaluation. Can be used for scientific, economic computing and also screen composition.
* **Regular Box**: A box system managing drag’n drop, needed for any agendas and spreadsheets applications
* **Regular Network**: a dynamic graph drawing widget
* **Full Box**: A box system managing clip’n view needed for mixing different interfaces to build your own workspace, and your own applications
* **Full Paragraph**: An text area managing clip’n view, the corner stone component to office applications.
* **Full Hypertext**: the time/space network viewer and manager needed to reach consensus on full contents

How to make component purchase free in Approach phase is still a technical issue but we are working on it.

## Applications

mezzònomy also provides applications needed by the ecosystem

* The **Regular** **Architect** to administrate a given machine both in teem of deployment, interface with existing systems (oracles), and billing and economic issues.
* The **Full Forge** to build a given machine either from scratch or by crossover and composition of existing machines.

**Acquisition** phase requires the **Regular Architect**. A Lite Architect can only manage tiny situations, for academic purposes.

**Autonomy** phase requires the **Full** **Forge**. The Regular Forge is a smart-contract builder, whose component assembly may vary to fit the needs but will be the corner stone of most regular applications.

## Mezzònomy service revenue streams

Our goal is not to become a world-wide service company with thousands of collaborators. If such a company is interested in our technology to back his service offer, it will determine the best strategy to do so in proper time.

But inevitably, providing a world-wide computing platform will necessitate services to **ease the acceptance process**.

1. The key factor of success in approach phase is **notoriety**. Notoriety comes for big and trusty names that support us or use our solutions with excited and amazed statements. In one word : *references*. To get these references, we will first target the **system integrators** in the key geographies in a **door-to-door** approach and billing the cost to develop the application at the POC stage.
2. The main pain in acquisition phase is to link the machine with existing computers with a genuine and often much more primitive representation of time and space. This is the job of **oracles**, which are set of heuristics and (may be) artificial intelligence able to reconstruct a coherent past for the exterior. Architect comes with an oracle factory, derived from an external product called *SmartBlend*, but we must dedicate part of our crew to oracle rescue mission, and have a strong community monitoring and experience sharing on these issues. The key factor of success of the global acquisition phase is here.
3. The key factor of success in autonomous phase is **formation**. At that stage the core work of R&D will be over, these teams will stay active in the ecosystems as expert, lecturers, easing the global autonomous phase.

The platform revenues are expected to be few percents of the GDP of the ecosystem.

* During global approach phase, we aim that this proportion can be high, as the platform is rare, and its capacities really out of scope of neighboring systems.
* During global acquisition phase, we aim that this amount will drop, as the platform spreads and its capacities become more and more *normal*.
* During global autonomous phase, we foresee that this amount will stabilize at a tiny proportion, but of the world GDP

At maturity, established, adopted, world-wide, the data amount managed by hypertext machines will be a thousand times the size of the bitcoin machine.

Spending a watt per bit at that scale is just out of reach. That’s why an peer-to-peer managed alternative for these revolutionary machines is needed.

*The value is in the stories, not in their end.*