eco
fintech
coop

Cooperative Ecosystem of
Financial Technologies

v2.6

0.- Abstract:

Ecofintech Coop is a cooperativeand activist work ecosystem in financial technologies (guerrilla fintech). Through this autonomous decentralized space, different participants, freelances, collectives and companies will be able to collaborate to carry out projects of application of the blockchain technology in solutions for distributed digital governance (DAO, Decentralised Autonomous Organization/DC, Decentralised Cooperatives) and the exchange on cryptographic tokens, focused on social and collaborative economy networks.

Ecofintech Coop presents a technological financial transition program for the development of sustainable and resilient local economies with three purposes:

1. Achieve **self-management** and independence of workers.

2. To offer **access to markets** liberated from corporate monopoly and over-regulation by the government.

3. Allow a channeling of financial capital towards infrastructures of the **common good** and mutual property.

To achieve such ends, we propose a tactical line of work for the participants in the ecosystem focused on education and *fintech* advice for the formation of local nodes and the deployment of infrastructure on three axes of sovereignty[i]:

1. Digital Infrastructure: Tools hardware and free software and not proprietary. Digital sovereignty and data privacy, decentralized governance.
2. Financial infrastructure: Access channels and exchange of token financial instruments and cooperative crypto-economic strategies on the block chain. Financial sovereignty.
3. Eco-industrial infrastructure: decentralized, technified and sustainable means of production on renewable energy resources as poles of attraction of collective investment capital (crowdinvesting) towards the circular economy, mutual property and the commons. Economic and productive sovereignty.

1.- Background

Ecofintech Coop was born as a conceptual idea throughout 2017 as a result of a long experience in projects and networks of alternative economy, fair trade, international cooperation and productive activities agro-ecological and artisan.

The idea that leads us to design Ecofintech Coop is the transforming potential offered by the implementation of new technologies of block chain (Internet of Value) and peer-to-peer networks distributed for use in the field of social economy, sustainable productive economy and socio-economic models that facilitate digital direct democratic governance and the development of financial sovereignty for cooperatives, associations, projects and communities. Ecofintech Coop covers a necessary space of field coordination for the different initiatives that currently exist and that will be initiated over the next few years.

"Similarly, blockchain technology has enabled the emergence of new projects and initiatives conceived around the principles of decentralization and disintermediation, offering a new platform for large-scale experimentation on the design of new economic and organizational structures.
Blockchain technology:toward a decentralized governance of digital platforms?[ii]

The Social Economy, according to CEPES[iii], generates around 8% of the EU's GDP, and in countries such as Spain up to 10%, made up of more than 43,000 companies that generate more than 2,000,000 direct and indirect jobs. The effects of the economic and environmental crisis, as well as the increase in mistrust of official control bodies, together with the progressive extension of decentralised and free access technologies, present us with a future projection of the growth potential of these alternative economic and social sectors. By increasing the expansion of these small economies interconnected in digital social networks, creating new economic spaces and displacing the old financial order, we can assume that new models of more participatory democratic institutional management will also appear around them. This change will also extend the appearance of new internal structures of digital democratic governance in the economic spaces of what are considered social movements, citizens and associations, as well as a small business sector dependent on the provision of services related to these spaces. The proliferation of digital self-employment aligned with these sectors will be especially relevant.

2.- Estruct

Ecofintech Coop is designed as a decentralized cooperative organization following the most innovative and current engineering around systems of autonomous and distributed digital governance. The main models on which the R&D work is focused (development and research) for the construction of the Ecofintech Coop structure are:

- **DAO** (Decentralized Autonomous Organization). Reference model: Bisq[iv].
- **DC** (Decentralized Cooperative). Reference model: Backfeed Economic Model[v].
- **DisCO** (Distributed Cooperative Organization). Reference model: Guerrilla Translation[vi].
- **OVN** (Open Value Network). Reference model: Sensorica[vii].

The basic structure of the ecosystem is based on a holocratic/sociocratic cooperative entrepreneurial scheme, on which an organizational protocol of own hybrid development between the previous models will be implemented. The final result will constitute an original value proposition for Ecofintech Coop, and the model that the ecosystem itself will offer and install in its applications of blockchain technology as a service for entities and clients interested in a transition towards these models (cooperatives, collectives, associations and ethical companies).

The self-administration and digital governance model put into practice by Ecofintech Coop serves as a template or reference for other cooperatives or entities, being a flexible model that allows its adaptation to the specific needs of each project. In addition, as we shall see, the different entities would in turn build a common entity in the form of a cluster, business cooperative confederation or general DAO. An integral structure is presented in the form of an organism or, as we define in the corporate identity itself, an ecosystem.
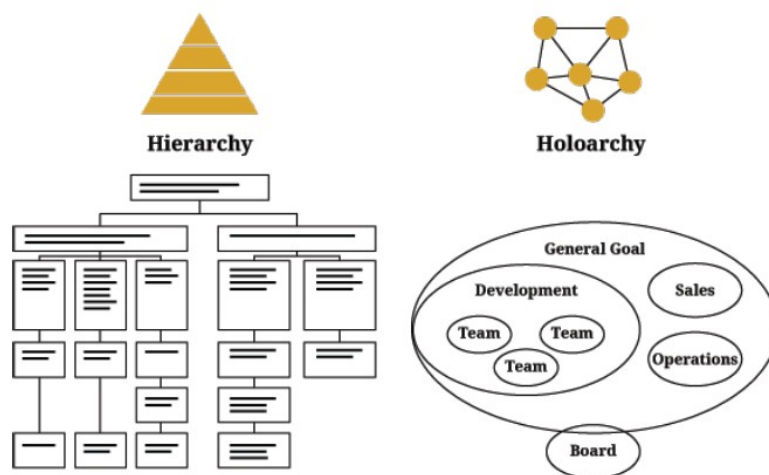
3.- Problem to solve

Small entities that carry out economic activities, whether cooperatives, associations, self-employed or artisans, entrepreneurs or small traders, face different barriers that impede the proper development and growth of their projects. This is especially accentuated in those initiatives which, instead of prioritising a commercial business logic, prioritise the pursuit of a purpose. This is, instead of being their main objective to obtain capital profits, adapting their business models to what the market or demand dictates, they seek capital solvency in order to achieve a social or cultural objective, preserve a traditional economic activity or develop an innovative idea.

Society as a whole would benefit if the main trend in business were to pursue ethical, cultural and cooperative goals. To this end, these models will have to compete with the trends marked by current markets, controlled by the influence of large monopolistic corporations that also own the advertising media and have weight on political decisions and the price of assets.
In order to contribute to the development of an alternative model, these small entities must achieve financial independence, solvency and their own channels of exchange.

We identify three problems generally faced by small social and collaborative enterprises:

- **Financial:** Due to a lack of efficiency and commercial competitiveness, projects have difficulties in accessing liquidity and solvency problems.
- **Technical:** The dependence of commercial services on intermediaries and the saturation of noise in the form of advertising of different offers at their disposal generate barriers to access to the most appropriate technologies for each particular case. The lack of an own digital infrastructure and its understanding aggravates this dependence and causes inefficiencies in the business models and their incorrect updating to the new conditions that arise in the market.
- **Organisational:** The above problems are translated into limits in the business dynamism itself and the ability to redesign more competitive management models while maintaining and expanding the collaborative nature of projects.

4.- How we solve them:

From Ecofintech Coop we offer services in the following areas:

- **Education** for the extension of blockchain technology; **consulting** in the new field of crypto-economics. Conceptualization and accompaniment for cases of use of financial technologies, use of CAD tools, p2p networks and consulting in encrypted and secure communications.
- **Facilitation** in the blockchain sector and available IT services offered by third parties and freelancers participating in the cooperative ecosystem or associates.
- Establishment of distributed and resilient hardware **infrastructure**.
- **Development** and administration of open source software for specific blockchain solutions (dapps). Development of tailor-made solutions for the formation of DAOs/DCs.

As part of the work plan around the axes of sovereignty described, the ecosystem will encourage the creation of local nodes similar to *hacklabs* and *fablabs*. These will be a local physical and permanent reference for entities and individuals interested in accessing these knowledge and services. Through the organization of workshops and meetings, training and promotion activities will be carried out, building community and generating spaces for collaboration between different entities and initiatives.

The construction of communities will be promoted following the socio-technical design SLOC [viii] (small and local but open and connected) by means of which the entities, organized according to DAO/DC models, at the same time form new entities or DAO/DC clusters among themselves. These groups, with global projection, will be able to benefit internally from collective intelligence and shared resources. From the outside, they will be able to act forming a common corporate model to compete in the market and also be able to act as political/associative pressure groups against administrations and regulatory institutions, acquiring better conditions for the development of local collaborative and social economic activities.
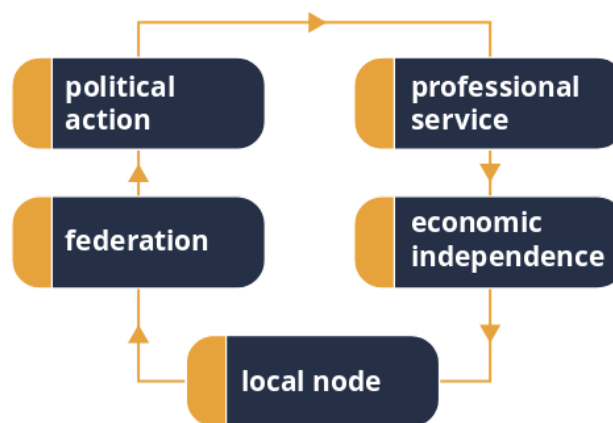
4.1.- Autonomous working sections:

The holocratic/sociocratic business model of Ecofintech Coop allows us to set up different sections on the different axes, formed by different work teams and maintaining a common distributed management. Each section organizes itself as its own DAO/DC, with members acting as liaisons for intersectoral coordination. The modular model allows new sections to be added as participants propose new conceptual ideas or specific solutions, both permanent and temporary. As we have previously analysed, Ecofintech Coop's own structure will serve us as a proposal and template on which to develop new decentralised CAD/CD cooperatives, with different sections and brands, adapting to the specific needs in each case.

4.2.- Collaborative Digital Tools:

We use a variety of collaborative digital tools for coordination and communication between participants. From Ecofintech Coop we will promote the most appropriate digital tools and resources for collaborative work, both our own and in entities receiving the services. We will pay special attention to the use of free software tools and encryption in communications, and decentralize as far as possible the infrastructure of servers on which the ecosystem is based, promoting spaces that allow participatory management and collective intelligence.

- Multi-platform community channels: Chat rooms connected by means of bridges between different platforms (Telegram messaging client, Matrix/Riot collaborative platform and the possibility of including IRC and others). The purpose is to allow the participation of users who use different servers decentralizing the dependence and vulnerability of a single server and respecting the options of anonymity or public identity of each member.

In a second phase we will have our own Matrix protocol server, compatible with other federated servers, deploying a completely independent infrastructure.

> **Telegram:** https://t.me/joinchat/Iw2hjxEoq_-vM2gB6q7EAQ
> **Matrix:** #ecofintech:matrix.org

- **Blogging, social networks and repositories:**

  -Blog: https://ecofintech.noblogs.org (noblogs.org hacktivist server)
  -Steemit: https://steemit.com/@ecofintech
  -Twitter: https://twitter.com/EcofintechC
  -Github: https://github.com/ecofintech
  -Discourse forum: (*pending*)

- **Collaborative Task Managers:**

  -Tasko (https://tasko.komun.org) Among the free tools offered, we use Tasko (Kanboard software, service offered by our partners Komun) for the management of internal tasks using the Kanban methodology of efficient organization of teamwork.
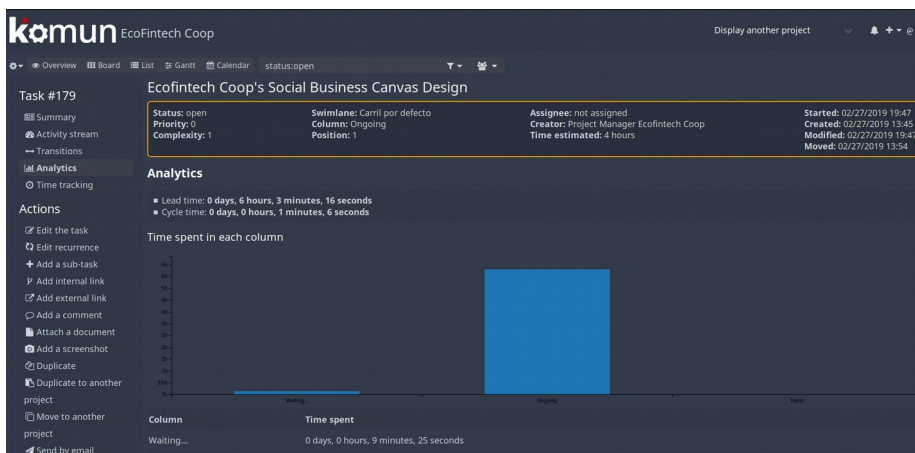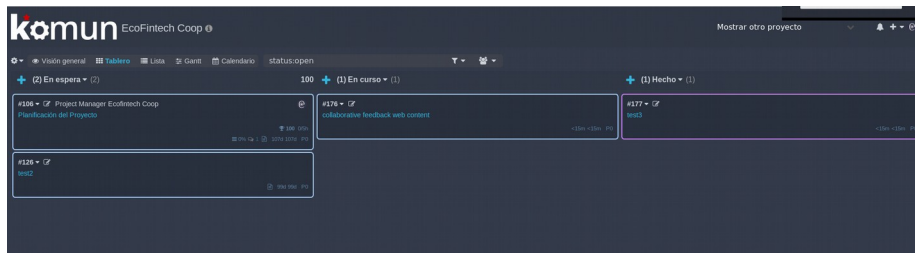
Through its control panel we can visualize analytical and other teamwork tracking functions
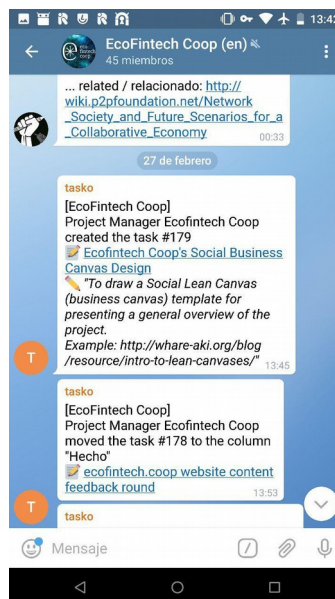
The marked tasks and their progress appear in the social channels through another bot bridge. In this way the community can follow the progress of the project, audit its correct execution and participate in the feedback.

-Paper (https://paper.komun.org): Pad through which to work texts of collective authorship, conceptual ideas and feedbacks.

-Nubo (https://nubo.komun.org): Cloud developed over Nextcloud with chat, deck, calendar and videoconferencing functions.

4.3.- Tokenomic model for Decentralised Cooperatives (DC):

With the aim of allowing the full development potential of the Ecofintech Coop project and at the same time offer a viable economic model that contributes to the launch and extension of new decentralized cooperatives and open collaborative networks, from the ecosystem we have designed a token-economic architecture that allows us the following functions:

  - Bootstrap
  - Mutual credit (open value accounting)
  - Collective financing (crowdsale)
  - Governance (DAO)
  - Circular economy (digital currency)

By means of a consensual accounting of the value contributed in work to the cooperative space we generate a mutual credit with characteristics of monetary emission. In the initial start-up phase, the participants receive cryptographic tokens in the form of credit for hours of work contributed (Proof of Value) or deposited capital. In this first phase the token has the characteristics of shares in cryptoequity.
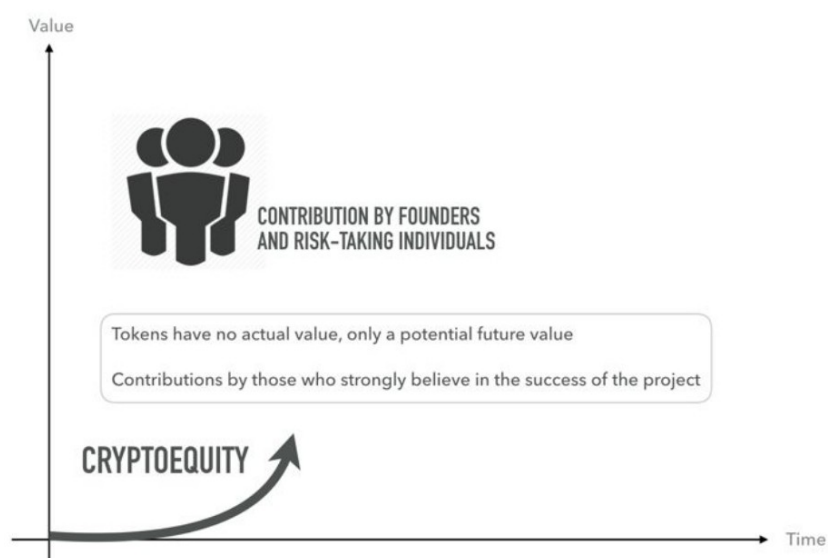

Images taken from the Backfeed Protocol white paper

Throughout a second phase, the project begins to develop and the token is used to access ecosystem services (utility) and listed in decentralized exchange houses. In this phase it acquires a commodity characteristic. It also gives rise to the appearance of an entry channel of external financing in the form of investment in currency supply (crowdsale).
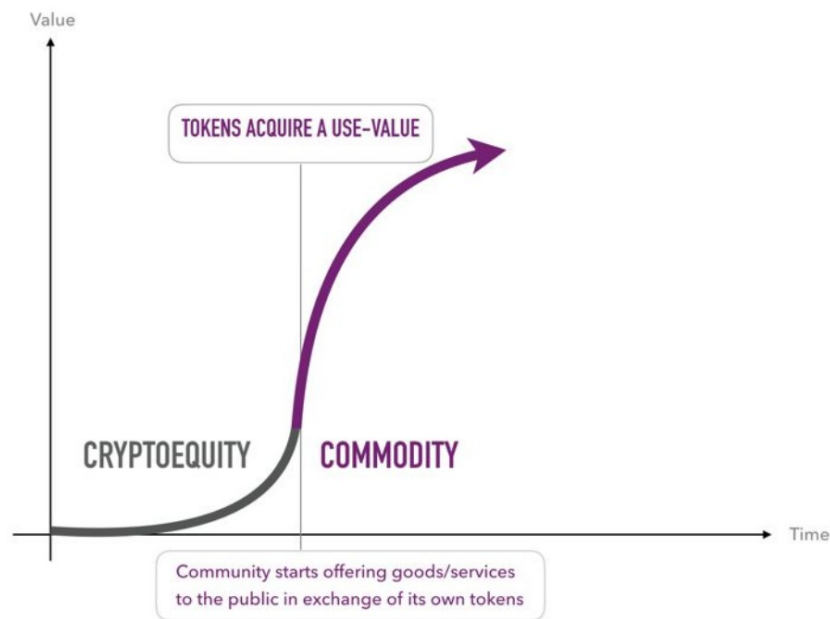
In a third phase, once the ecosystem has consolidated and generates its own liquidity reserve, the decentralized cooperative can offer an internal exchange point to redeem the token for cash. In this phase the token acquires a clearer function as a bargaining chip and begins to stabilize its value thanks to the upper and lower margins set by the ecosystem participants based on market research. Faced with speculative movements that generate a rise in the price of the token on a bubble, the ecosystem can emit more money to the market, absorbing the surplus capitalization. Faced with possible price falls, the ecosystem would mark a lower margin of repurchase. In this way decentralized cooperatives acquire sovereignty over their own currency (digital currency), being able to relate to each other using a variety of tokens issued by different entities in the same trust network, giving rise to a true circular economy.
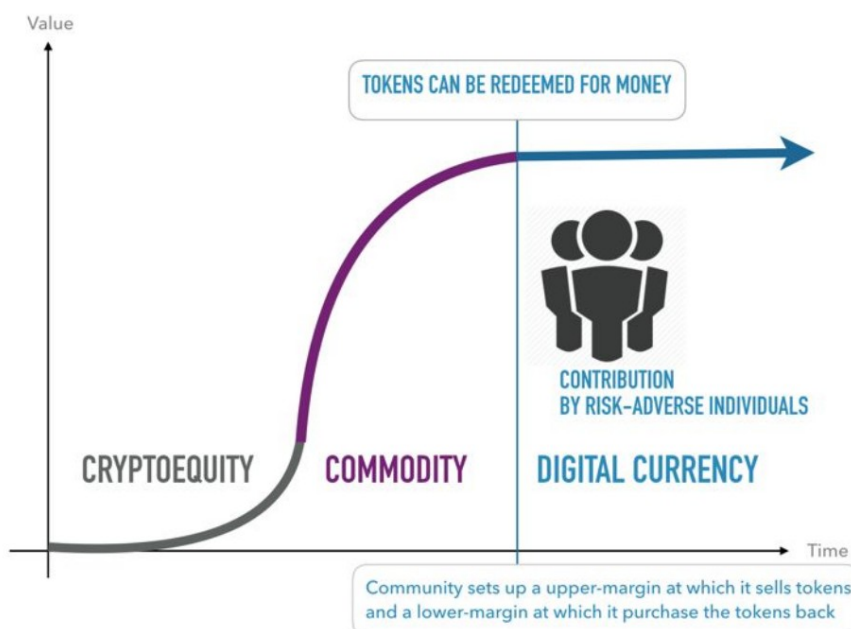
4.3.1.- Commons Oriented Distributed Governance Protocol:

The decentralised cooperative governance system allows us to adapt the corporate DAO tool to the open value accounting and mutual credit model for decentralised cooperatives (DisCO and DC). Decision-making on issues concerning jointly managed funds, as well as the minting or burning of mutual credit and reputation tokens, will be determined by the contributed working relationship and supervision of the community itself. In a distributed cooperative organization and open value network we classify work into three categories:

  - Commons oriented work .
  - Subsistence work.
  - Care or reproductive work.

Participants in the ecosystem will be able to carry out pro-common tasks on their own initiative, contributing voluntarily to the growth of the project and the extension of its services for the common good. The subsistence works will be those imperatives for the development of the economic activities of the cooperative, previously entrusted from the circle of direction. All token assignments must be approved by the participants using the DAO voting tool.

As care or reproductive work we understand those tasks that are fundamental for the reproduction and good emotional health of the project, as the Feminist Economics[ix] theory teaches us. Care work belongs to those participants in the ecosystem who are recognized as having carried out a special effort or extra work in addition to subsistence or pro-common work. This is to say, organizational tasks more based on concretions, connections and emotions that normally go unnoticed because they are difficult to measure and quantify following culturally masculine patterns such as accounting, analytical thinking and productivity.

Commons oriented and subsistence work is rewarded using a work time accounting token with monetary characteristics in the form of distributed digital accounting of mutual credit. Participants will be able to exchange their tokens among themselves for goods and services, as well as access liquidity through the decentralized cooperative's internal exchange point (tokens received redeemed by the CD are "burned", thus decreasing their amount in circulation).

The process can be carried out directly or through exchange houses. Its price, although initially determined by the co-operative's consensus, may increase as the co-operative revalues (offering a higher exchange rate per hour worked) and market demand for the token/participation increases.

The cooperative's common funds, obtained through the benefits of its economic activity, are used to offer change to participants who receive working time tokens and require cash settlement:

• 75% destined to exchange for subsistence jobs.
• 25% destined to exchange for commons oriented work.

The decentralised cooperative will design mechanisms to encourage the issued token to remain in circulation rather than being liquidated, for example by charging exchange fees or offering a token support bonus. The very loss of voting capacity due

to token liquidation will create a balance, encouraging participants to avoid liquidating all their shares for cash, thus extracting value from the circular economy.

A non-exchangeable token with functions of reputation and meritocracy will be used as a record of the care and reproductive work provided.

The relationship between both tokens, working time and care work, is equivalent to the weight of decision in the cooperative's decision-making processes, carried out using the voting DAO tool (Vote Weighting Holistic Protocol, see Tokenomic Whitepaper).

Different decentralised co-operatives acting in a trusted network within the same federation will ideally be able to use their mutual credit tokens to obtain goods and services from each other.

4.4.- Confoederatio Platform:

We set up an infrastructure blockchain of governance and exchange in order to interconnect and allow self-administration, both of the sections that make up Ecofintech Coop, as well as of the different entities that in turn give rise to the confederated groupings or clusters. This infrastructure offers the DAO+DEX (decentralized exchange) functions of its own configuration, Confoederatio Platform. (Digital Infrastructure Axis and Financial Infrastructure Axis).

It is presented as the main development work of Ecofintech Coop and as a basic pillar on which to extend the network of nodes of the cooperative fintech ecosystem and associated independent actors. Within this structure, Ecofintech Coop is yet another federated cooperative, although it will maintain its own function of administration and maintenance service of the infrastructure as the technical-financial cooperative of the system, as well as the functions of promotion and education for members of new decentralised cooperatives as described above.

The platform will promote the establishment of fair and federated trade relations by creating an alternative digital economic space based on common values of decentralisation, fair business, sustainable economy, transparency, democratic autonomy and free market. It will allow the creation of internal federated and OTC markets. At the same time it acts as a common unified corporate body for the global external market, allowing the collective issuance of a variety of tokenized financial instruments.

The operations on the platform will leave commissions in a commons oriented mutual fund (Ama-gi Token) of democratic collective management by all the participating entities. Of these common funds, under a voting mechanism as described above, a portion will be allocated to maintenance and extension budgets by Ecofintech Coop.

The Confoederatio platform will be deployed using RSK Rootstock technology in order to offer the highest standard in security, decentralization and resilience thanks to Bitcoin's mining infrastructure. The common entity issuing tokenized financial instruments to the foreign market will be carried out on Ethereum to benefit from the extension of the erc20 standard in exchange houses and its wide acceptance by investors.

More info: https://ecofintech.noblogs.org/post/2018/10/28/confoederatio-trade/

The Confoederatio platform was selected as one of the finalist projects in the 1st edition of the Ledger [The Venture Builder for Human Centric Solutions](#) competition.

4.5.- Pilot projects:

From Ecofintech Coop we will develop several pilot projects of application of the block chain technology following the described model. This will be the beginning of the activity of the cooperative ecosystem of financial technologies, and will allow us to put into practice the working model and methodology, connecting the first DC entities that will begin with the federation under the Confederative platform, accompanied by Ecofintech Coop. It will also allow us to elaborate a first leaflet showing the variety and projection of services offered by the cooperative fintech. The first pilots are ideas launched by members participating in the ecosystem that have been taking shape following our technical-financial advice and conceptual design.

Complementary services such as [Ecophone](#) (hardware marketplace) as well as complementary services offered by participants are offered in all the pilots.

See our [Projects](#) section in our blog for more.

5.- ¿Porqué Blockchain?

Block-chain technology allows us to create distributed value networks, ensuring that small entities previously isolated and absorbed by the trust money system now become nodes of a global network in their own economic space.

We observe a trend of transition from hierarchical organizational models to collective and decentralized models. Digital technologies and networks have marked a momentum in which new actors and entities can benefit from greater flexibility and organizational efficiency to undertake projects competing with and displacing conventional organizations. In this way, their value systems and the capitalist market dynamics they have developed can also be displaced.

The "internet of value" will allow us to generate these new collaborative economic spaces and establish protective membranes, carrying out an effect of value transfer from the outside, the global market, to the inside, the distributed economic space itself[x]. In this way the entities and nodes participating in the network will have new tools and digital financial instruments that will allow them new forms of economic growth and establishment of circular economy systems.

i   This strategy is part of the Economic Democracy proposal. See wikipedia:
    https://es.wikipedia.org/wiki/Democracia_econ%C3%B3mica
    Specifically, the three development axes coincide with the three main characteristics defined by Scheweickart:
            1.- Workers' self-management: Each productive company is democratically controlled by its workers.
            2.- Free Market: These companies relate to each other - and to consumers - in a system that does not normally have price control by the State. Raw materials, means of production and goods (assets) are sold and bought at prices generally determined by the law of supply and demand.
            3.- Social control of investment: funds for new investments are returned to the economy through a network of public investment banks (in this case the networks replace the banking institutions themselves proposed by this theory, although ideally the nodes could form credit cooperatives or other fiscal figures).

ii Academic research work carried out by Primavera de Filippi and Xavier Lavayssiére for the Centre d'Études et de Recherches de Science Administrative CERSA, Université Paris II and Le Centre National de la Recherche Scientifique CNRS. Full text available at: https://ecofintech.noblogs.org/post/2019/04/18/blockchain-technology-toward-a-decentralized-governance-of-digital-platforms/#more-393

iii Confederación Empresarial Española de la Economía Social https://www.cepes.es/

iv Bisq: https://bisq.network/dao/

v   Backfeed Economic Model: http://backfeed.cc/assets/docs/BackfeedEconomicModel.pdf

vi DisCO: https://wiki.guerrillamediacollective.org/index.php/Commons-Oriented_Open_Cooperative_Governance_Model_V_2.0

vii OVN: http://wiki.p2pfoundation.net/Open_Value_Network

viii *See "Ezio Manzini: Diffuse Design":* https://medium.com/@allisonyhuang/ezio-manzini-diffuse-design-85421b79490
    Also *"Small, Local, Open and Connected: Resilient Systems and Sustainable Qualities":*
    https://designobserver.com/feature/small-local-open-and-connected-resilient-systems-and-sustainable-qualities/37670

ix Feminist Economics: https://en.wikipedia.org/wiki/Feminist_economics

x   "Transvestment": https://wiki.p2pfoundation.net/Transvestment