

The EcoNauts Project

@The Chiron Centre for Social Tech

A Summary



INFORMATION

TOPIC

SHORT DESCRIPTION THE PROJECT

MEMBERS OF THE TEAM

DISCIPLINES INVOLVED

HOW DO YOU FORESEE THE ROLE OF THE DIFFERENT DISCIPLINES IN THIS PROJECT?

EXECUTIVE SUMMARY

VALUE PROPOSITION – TOWARDS THE PUBLIC ADMINISTRATION

THE “SERVICE PROVIDER”: THE EXECUTIVE GROUP FOR SUPERVISION & MANAGEMENT

INCENTIVE MECHANISMS

EARLY ADOPTERS

POTENTIAL COLLABORATION

ANNEX

WORKING DOCUMENT

Information

Topic

Complementary Currencies

Short Description the Project

Financing & Funding Volos

Members of the team

Marilena Milou (minou@aueb.gr);
Kyriaki-Maria Salteri (kmsalteri@gmail.com);
Bram Naudts (bram.naudts@intec.ugent.be);
Jonas Breuer (jonas.breuer@iminds.be);
Raimondo Iemma (raimondo.iemma@polito.it);
Brett Scott (b.r.scott.06@cantab.net);
Giuseppe Littera (giuseppe.littera@sardex.net);
Chris Cook (cjenscook@googlemail.com);
Christos P. (TEM).

Disciplines Involved

Network economics; Computer Science; Business Model Innovation; “Techno Economics” (where management meets economics & networks)

How do you foresee the role of the different disciplines in this project?

The aim is to develop practical economic interventions in Volos based upon the different sources of value in Volos and its environs. The disciplines present in the group converge in the space where enterprise; markets ; and direct instantaneous communications converge.

Executive Summary

A complementary currency is a credit instrument which complements existing currencies and is typically used in a local community (e.g. [Sardex](#) in Sardinia, or [TEM](#) in Volos). A complementary currency is designed to solve specific, local problems. In the business sector, Sardex Network offers a new line of B2B credit with zero interest to small businesses which can access bank credit barely, if at all, while in the social “Third Sector” TEM credit facilitates exchange of services directly ‘C2C’ between Volos locals (without the need for euros).

The success of a complementary currency is to a large extent dependent on the number of active users, the trust in the currency, and the guarantees offered. To establish a liquid currency each of these 3 factors should be governed by an

independent organisation responsible for management, marketing, dispute resolution, and quality control.

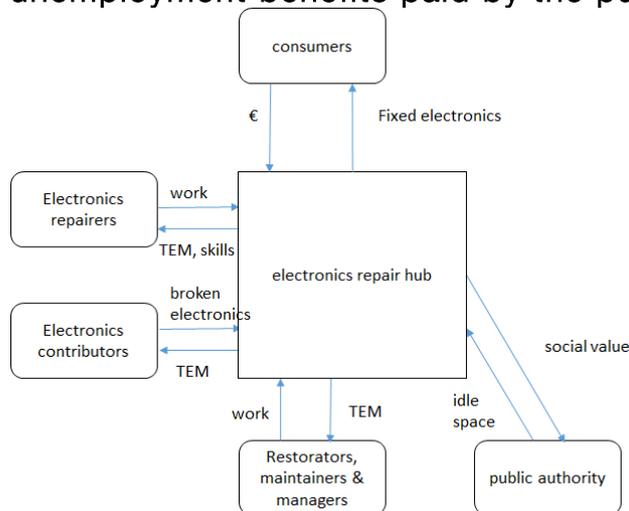
Our aim is to re-base and re-launch the existing TEM currency, through the creation of an electronic repair hub on underutilised used public land.

The concept mobilises underutilised Volos resources:

- idle workforce,
- idle land & buildings,
- potential energy supply,
- dysfunctional electronics,

to make a difference to the community.

Our key innovation in achieving our aim is for the Volos public authority either to directly provide, or to facilitate provision of idle land / buildings within a partnership framework agreement. In return for the use of land & buildings we will create an electronics repair hub on the site. The contributors scavenge for broken electronics and bring it to the repair hub while the electronics repairers fix the electronics and offer them for sales to the consumers. Contributors and repairers are initially paid fully in TEM while consumers pay in euro, TEM or even both. From this base the TEM starts rolling and has a strong foundation for future explorations. In the long term the repair hub will act to reduce unemployment by increasing the skill set of the Volos people thereby increasing the total social value of the project and reducing unemployment benefits paid by the public authority.



Value Proposition – Towards the Public Administration

- Nature of the product: A sustainable means to re-store a share of exchanging power of Volos' citizens using a public asset.

- Overall narrative: Why not? (rather than “Why?”)
- Different types of incentives/benefits
 - social
 - (internal + external) reputation
 - increased trust (towards the PA; within society)
 - reduced transaction costs
 - economic
 - competitive advantage (as a municipality / region);
 - re-booting a share of the local labour market (rectius, actually, re-storing a share of the ‘purchasing’ exchanging power of the citizens)
- Target customers
 - ideally, all interested citizens
- Key features (that make this endeavour unique):
 - replicability / scalability
 - little or no cost;
 - potentially self-sustainable

The “Service Provider”: The Executive Group for Supervision & Management

- Non-profit organisation (no surplus revenue)
- Group composition
 - Board of Councillors: 5 members: representing diverse societal groups (TRUST): no veto
 - 5 “executives”
 - group very committed to objectives
 - ideally economically independent (at least in beginning)
 - sufficient degree of independent control
- Function: “Gatekeeper role”
 - Governance: Executive power
 - enough control needs to be allocated in executive group
 - Regulation
- Roles
 1. Supervision & Management
 - a. Units (measurement) of Currency: 1TEM/1€ is easiest
 - b. Ensure stability of value: asset backing (building)
 - c. trust: supervise guarantee from municipality
 - Costs & Revenue Streams
 - marketing/outreach, partnering
 - advertising, sponsoring, donors, crowdfunding etc.
 - legal stuff
 - representation
 2. Management on Premises

- a. allocation of manpower, renovation & maintenance, mentors, repairers, learners
- b. overview of influx of broken and releasing of repaired devices
- c. TEM currency office, backing software, ideally to integrate crypto currency

Incentive Mechanisms

The success of a complementary currency system is dependent upon the participation of the issuers; trust in the currency by users; and the sustainability of the system. Apart from the current technological and other barriers to be surmounted, the design of incentive mechanisms should be carefully tailored to the specific needs of each of the participating stakeholders.

In order for the HUB to be created with minimum funding, the participation of all the stakeholders is necessary. There are two possible types of incentives: firstly, conventional economic incentives, and secondly unconventional social and other incentives. Until now, there has been a limited number of individuals willing and able to work entirely on an altruistic basis. The proposed architecture enables citizens to participate on the basis of receiving “€’s worth” of value rather several classes of participants in the proposed system listed below:

1. Consumers
2. Electronics Repairers
3. Electronic Contributors
4. Restorators, Maintainers and Managers

In order for each one of them to be an active player in the system different incentives should be considered. For what follows, we group the Electronic Repairers and Contributors in one category – since there are overlaps when considering the sentimental and societal aspect of the incentives - and refer to them as “Sellers”.

In particular:

Consumers

Eco-awareness: buying different recycled and repaired items, consumers can become more aware towards the environment and adopt ecological behaviour in different aspects of their lives.

Social contribution: supporting this complementary market, they become active part in the effort of improving the society as a whole and help members of the society, which are in need.

Reputation: participating in an ecosystem like the described one, they gain enhanced reputation, which can be interpreted as social reward of their contribution, thus laying the foundation of trust.

Reputation: participating in an ecosystem like the described one, they gain enhanced reputation, which can be interpreted as social reward of their contribution, thus laying the foundation of trust.

Vertical expansion: when entering in such a market, different opportunities are offered to extend the activities on different sectors of the economy. In addition to that, they can interact with parallel ecosystems under a similar operational structures.

Collaboration opportunities: meeting and collaborating with people from different fields, new experts with special skills and possible collaborations with them can emerge.

Sellers

Eco-awareness: they utilize by giving second chance to items that are no longer in use.

Reputation: the seller with the most transactions tends to be considered as more popular and hence trustful, which can further lead to earn more TEMs for his contribution in this ecosystem and the society in general.

Value Creation: when using an idle resource, we add value to items that until now had no significant importance and contribution to the society.

Socializing: by get involved in social activities, meeting new people and exchanging experiences and ideas in a social set.

Electronic Contributors

Space Savings: by offering items that are stored and not in use.

Money Savings: by offering items that need to be repaired in the HUB, you can save money (in euros) and reclaim the repaired item (in TEMs), thus practically avoiding the reparation cost.

Electronic Repairers: Improve Skills, Gain confidence, Gain Experience and Invest in people and business world to taste of how the latter works.

Early Adopters

Since the different incentives are now defined, we can recognise the critical mass of early adopters to address.

- Unemployed people (especially young)
- Students from different background
- New businesses that are willing to gain reputation and explore new marketing opportunities
- Public services (universities, schools etc.)
- Hotels, restaurants, bars, cafes, etc. that are used in renovations
- Internet Cafes, copy centres, photo centres, etc. that they use technology and their activities are based on it
- Everyone who owns unused or damaged technology equipment

- Electronic stores that can use the HUB as maintenance centre

Potential Collaboration

CROWDSOURCING Team

Based on the collected data, we can create users' profiles that can operate as a database. This can lead to creating the market map.

- Market Map
- New/old users
- Number of their transactions

Amount of TEMs earned/spent, etc.

DIY Networking Team: Utilising the Mesh Network model

We can create an online search engine for product catalogues (e.g. eBAY) in order to

- Check in real-time demand and supply
- New product entries, etc.

Utilising Raspberry Model:

We aim to use the motion sensors and the displays offered by the project for marketing purposes. For example, when motion is detected the beamer will display text messages of product availability, prices in TEMs, product characteristics, etc.

ANNEX

Working Document

Short term

Design of prototype > Interplay between **enforceable obligations (backing made of commitments)**

Incentives to join and Incentives to stay / What are the strategies to get in buyers / sellers / stakeholders

Critical mass > Early adopters (who should be and how to get them on board?)

Initial investment > time, people and resources basics

Functions / Role / Value Proposition of service provider

How to ensure the stable value of the currency? Asset backing? Default pool? Guarantee pool?

Unit of account > Simple (1 TEM: 1 EUR) / Advanced (1 TEM: 1 KW)

Governance model > Direct democracy vs Executive power

Agreement is basis of trust

Mid to Long term

Data > Finding data that could be used to forecast / plan from Public Authority (unmaps project)

Commitment first in terms of economic value

Rules of engagement

Rules to get credit

Volos Re-Works > Hub > Power

Mission

Repairing/refurbishing/recycling as social activity / **civic duty**
Turn any trash into a community treasure
Re-industrialized but small scale and green
DIY initiatives HUB

Backing

Repaired goods
Time
Sweat
Space (2 building available near TEM market)
Market

Revenue streams

Shop sales to eco aware outsiders (tourists, visitors) in EUR
Donations
Research

Crowdfunding

Artists in-residence
Advertisement
Sponsorship - mentors

Costs

Energy against adv / 1%
Salaries
Taxes
Operational costs

Parties involved

Collectors
Repairers
Maintainers
Mentors
Apprentices
Potential employers
University
Solar power owners
Service providers -> Quality control / Infrastructure / Contracts enforcing

Local authority / University

Q. What is your commitment to the city youth?
Q. What are the idle resources you are willing to put in the pool?

How to get TEM?

1. Get TEM for old stuff collection
2. Get TEM for repair work
3. Get TEM for mentoring / teaching
4. Get TEM for solar energy supply
5. Get TEM by participating into a social game (treasure hunt)
6. Get TEM for managing the HUB
7. Get TEM for maintenance work

Sell repaired / recycles for TEM / EUR to keep economic viability long term