

# THE MICROSHARE

Seratio Whitepaper 7.0



CENTRE FOR CITIZENSHIP, ENTERPRISE AND GOVERNANCE

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# SERATIO WHITEPAPER 7.0

## The Microshare

*A valuable tool that will be used to promote positive values, and be part of the **system** change ... that will secure **structural** change*

John Ranford BA - Barbara Mellish MBA ACIB MIRM - Prof Olinga Ta'eed PhD FlOD

The SER token equals the dollar value, \$

The Microshare token equals the non-financial value token the \$<sup>+</sup>

HELP US BRING MICROSHARES TO THE WORLD AND MAKE EVERY TRANSACTION A SOCIAL IMPACT  
[WWW.SERATIO-COINS.WORLD](http://WWW.SERATIO-COINS.WORLD)

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# Centre for Citizenship Enterprise and Governance

CCEG operates as an independent, not for profit, research think tank and policy institute concerned with the development and use of social value metrics as a measure to promote a just, prosperous and sustainably secure global society.

This Whitepaper is number seven in the series of publications which charts the development of the Seratio Platform, Blockchain, SER Token and now the Microshare. All previous white papers are available at [www.github.com/seratio/whitepaper](https://www.github.com/seratio/whitepaper)

This paper is presented as a proposal of ideas and to solicit feedback from our networks and communities. We are embarking on a significant and bold endeavour to change the transparency of transactions to show true, full value, beyond the simple financial element. This powerful concept may well change the shape of how we interact together.

You are invited to participate and share your ideas with us to make this project the very best it can be.

## **Microshares are the new Currency of Non-Financial Value**

They work by capturing and recording the non-financial attribute of any action or transaction.

A non-financial token, the Microshare, represents the transaction of a non-attribute value gained through volunteering, social credits, being a care giver, buying products with positive provenance, shopping in the 'good' retailer, etc.

Microshares can be credited to an entity's Seratio-Wallet through many ways including physical loyalty cards. They can also be transferred into other reward mechanisms to gain benefit. As a store of non-financial value, they can be used as a discount or gifted in their own right.

The use of the term Microshare<sup>TM</sup> must not be confused with any other use of the same expression or combination of words Micro-Share, or Micro Share, of which there are many. The use of the term is solely limited to its use using blockchain technology combined with the Social Earnings Ratio<sup>®</sup> metric, and the ability to transact non-financial value through cryptocurrencies whether Coins or Tokens. Figuratively, it means a microshare of a person, product, process, project or organisation.

# SECTION 1: INTRODUCING THE MICROSHARE

## 1.1: THE MICROSHARE: VISION, MISSION, STRATEGY

**Vision:** CCEG predicts a world where the intangible values are recognised and transacted. Where the total transaction value rather than simple financial value is understood – where communities and the environment are flourishing.

**Microshares:** Microshares are the articulation of the non-financial value of an entity, process or product. Ownership implies alignment, giving a voice and a vote to the owner.

**Mission:** The Microshare will be a complimentary element in a suite of Seratio crypto-currency solutions which together provide the vehicle whereby anyone, anywhere can

- Transact social value
- Transact impact value
- Transact values

**Strategy:** Microshare Tokens will be issued:

- As part of the SER Token ICO as a reward for fundraising
- As part of Alt-Coin ICO launch for vibrant aligned communities, women's coin, eduCoin etc.
- Ongoing to people/organisations/projects/processes/products when they positively contribute to social impact
- As part of product sourcing and rating of supply chains - provenance

**Reward Network:**

- To provide a reward network through discounts at retail outlets, online and others

**Other Benefits**

- To provide a voice and community
- To provide a vote mechanism to influence others
- To become a source of independent value
- To become tradable in their own right non-financial markets and ultimately in the financial markets

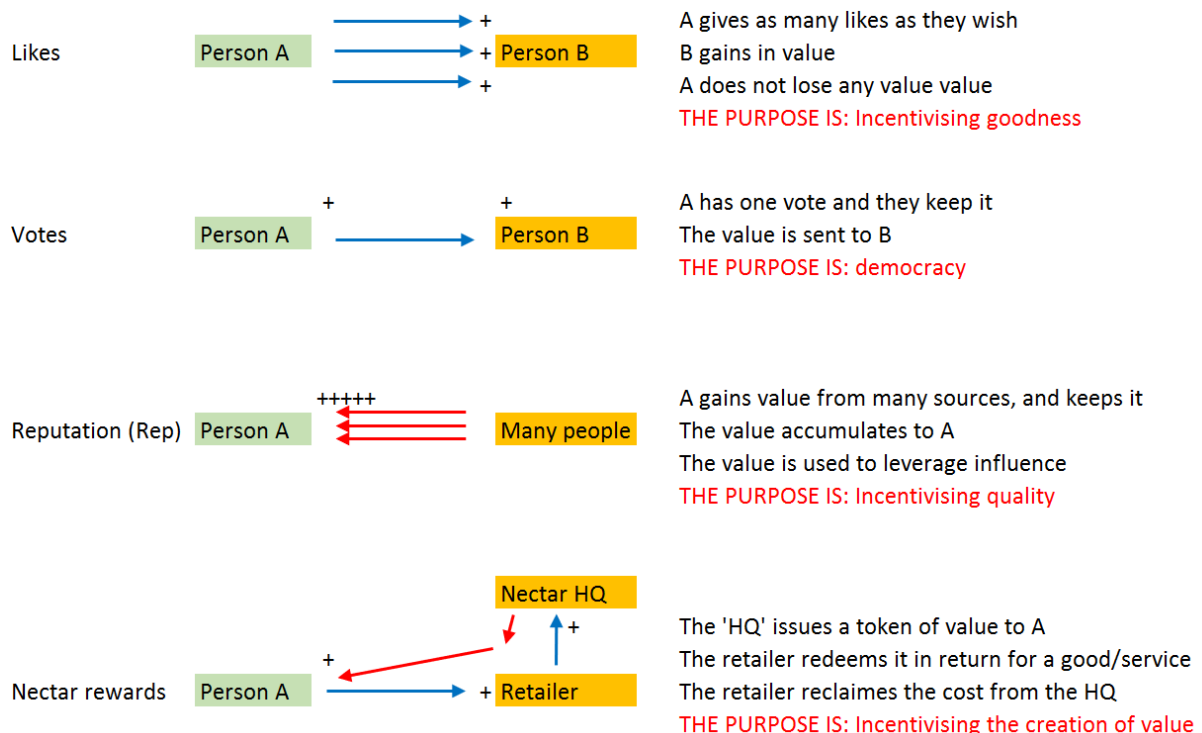
## 1.2: EXAMPLES OF MOVEMENT OF VALUE

Every time someone smiles, something intangible moves from one person to another or is shared. With every Facebook like, someone is sending an affirming message to another person. Every time we vote, we add some power to those we vote for. All these things are intangible, and there is movement. This is the movement of intangible value. We are familiar with the concept of financial value moving between people, but here we are talking about non-financial value.

Intangible values can also be created. When someone carries shopping for an elderly person, some intangible value has been created. We can more easily see the creation of intangible value when we think about the power of brands. Think of VW and Skoda – similar cars, made by companies with the same owner, but people are prepared to pay a higher price if it has the VW logo. An original Rembrandt is worth a hundred times more than a fake, though experts may not have noticed the difference for decades. This is an instance of an intangible value being recognised – and resulting in a financial value.

Here are some examples of where value moves – that is, where value is transacted:

### Devices that enable the movement of value



## 1.3: INTRODUCING THE MICROSHARE CONCEPT

### What is a Microshare?

The MICROSHARE is a term we use to describe a unit of non-financial, intangible value.

Examples are:

1. gained by **people** through

- volunteering
- social credits
- being a care giver
- buying products with positive provenance
- shopping in the 'good' retailer

2. awarded to **products and services** that have a positive impact on society and the environment through

- the materials they use
- the processes in which they are made
- the energy conserved
- the impact of the product in use
- the impact of the product post-use
- the fairness to stakeholders including employees and suppliers

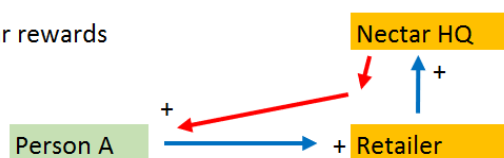
In short, any entity that creates social value and positively contributes to society (including towards the 17 UN Sustainable Development Goals) may have an associated Microshare.

### The Microshare: How it is used

The Microshare can be used in a variety of situations, for example ...

1. used as a reward like Loyalty Cards and Coupons like Nectar points to gain a discount etc:

Nectar rewards



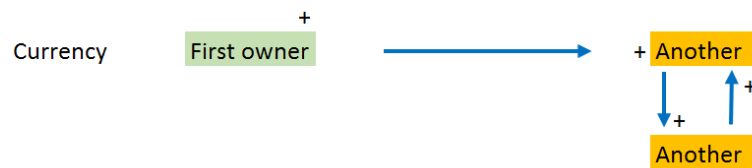
The 'HQ' issues a token of value to A

The retailer redeems it in return for a good/service

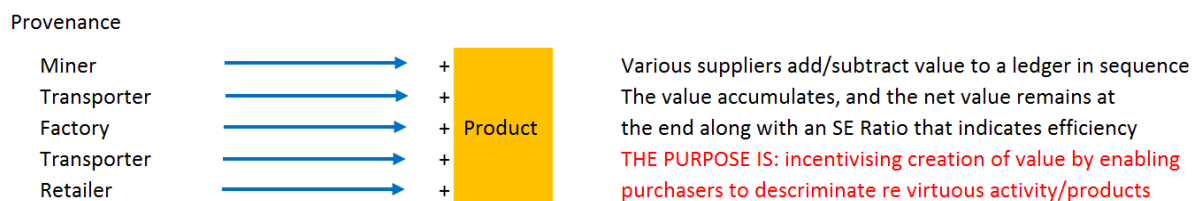
The retailer reclaims the cost from the HQ

THE PURPOSE IS: Incentivising the creation of value

2. attached to a financial transaction by being paired with a SER coin – a fully functional crypto-currency - as in this diagram:



3. attached to a record of a (QR) bar-coded product to indicate its provenance



In addition, a person can award a Microshare to another person, organization or product in the same way as a 'Like'.

We will also incorporate a 'reputation' feature to incentivize volunteers to contribute in an increasingly effective way, in building the Seratio platform, and their local community Digital Hub

### Who will use Microshares?

Microshares can be issued by different organisations or communities which are passionate and share many values and desire a better world for all of nature and humanity. Each community will decide the particular values they wish to incorporate, and CCEG will develop the metrics, perhaps structured round the 17 Sustainable Development Goals, giving extra weight to those metrics that accord with their values. They may also ask for new metrics to be devised which are specific to their cause. Examples could be volunteering acts - such as the act of shopping for an elderly person. Or the extra value that an organic carrot has over any other carrot. The Microshare can also be used to capture and represent the personal values that we hold which cause us to value one thing more than another.

### What is the purpose of the Microshare?

We all hold values. People in different communities – both geographical and 'communities of interest', are often bound together because of certain values. For instance, charity supporters will rally round a cause with great passion, or minority groups will fight together against an injustice. Similarly, faith groups will have deeply held values such as the concern for the betterment of humankind, or a love for the environment. These vibrant communities – and indeed anyone - can use the Microshare to further their causes. By designing a



Microshare in which their values are captured, these values can gain recognition. Moreover, they can be transacted, as we shall see.

In a world where there is conflict, corruption, poverty, oppression, resource depletion, pollution, and potentially catastrophic climate change, the need for tools to effect change is critical. Money plays a central role in all of these issues. The fact that we have little way of tracing what our money has been doing, means that money can be used for evil purposes with impunity. This is an astounding situation that we have tolerated the misuse of money for so long. The fact that money currently seems to flow increasingly from the poor and the poorer countries to the rich, means something is broken and we need system change. We believe, the Microshare will be a valuable tool that can be used to promote positive values, and be part of the system change we need as common citizens of this fragile planet.

In the hands of these impassioned people, it could be used to affirm billions of good deeds, reward voluntary work, give voice through a vote that – due to the blockchain software - cannot be corrupted. It can highlight the risk of corruption, money-laundering and modern-day slavery. It can identify and affirm people who have a good reputation in their communities, raising up new leaders and increasing community participation.

These are huge claims for a piece of software. But it has been the culmination of 6 years of research and testing and many aspects are in commercial operation today. This is documented in 6 preceding Whitepapers. The transaction of social value through digital means has never been possible before.

## SECTION 2: THE CONTEXT

### 2.1: THE DEVELOPMENT OF THE SER COIN AND THE MICROSHARE

#### **The early development**

The Centre for Citizenship, Enterprise and Governance 'CCEG', which span out of the University of Northampton, UK, is now the global leader in the movement of value. The SER token and the philosophy of transacting intangible value has been in development since 2011. Its early beginnings was the ability to compare and understand an organisation's impact on their communities and environment. The method has been used combine all the sustainability metrics of the UN's 17 Sustainable Development Goals into a single figure – a Social Earnings Ratio – or SE Ratio. Since then, this measure has been used to support legislation in the UK, Europe and Internationally.

Our ultimate goal, the ability to record and transact with our values has, at last, become a reality with the emergence of blockchain Digital Ledger Technology - DLT.

#### **How Microshares came about**

In 2016 CCEG discovered that these non-financial values could be transacted using blockchain technology and they began creating a two-part token - the SER token and the Microshare. This will be the first time both financial and non-financial value can be recorded and transacted on a blockchain with mass adoption. To fundraise for the development, a coin – the SER was launched in September 2017 ([www.seratio-coins.world](http://www.seratio-coins.world)).

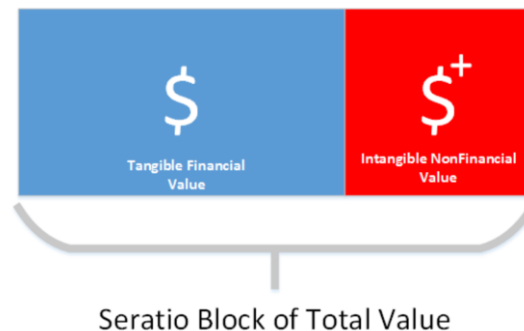
The first part of the SER token is the financial part like that used in cryptocurrencies. The second part represents the non-financial, intangible part of the token and this is the Microshare.

The Microshare concept is unique. No other technology claims to enable the digitization of a non-financial, intangible value (on a blockchain). This also means that these values can be transacted. The potential uses of this are only just beginning to be understood.

To enable the creation of the Microshare, CCEG is building a new platform, the Seratio Platform, which will interact with the Ethereum blockchain, and on which new applications can be built. CCEG has commissions for many applications on this platform such as Carers Coin, Women's Coin etc. CCEG invites other potential partners to come forward and build applications on this blockchain platform as a service.

## The SER Coin

To understand the Microshare it is important to understand its counterpart – the SER family of coins, which is the financial element. These are fully-functional cryptocurrencies and will be minted by CCEG on behalf of sponsoring organisations and their communities – like Carers Coin or Water Coin. These will be specifically formulated to the requirements of these sponsors, and the currencies will operate in different ways with different sets of rules under common standards, growing the network of users, participants and acceptance.



The SER SDG family of coins will be interchangeable at a 1:1 exchange rate. For example, 1 SER water coin = 1 SER Carers coin = 1 SER Women's coin = 1 SER coin.

- The SER token equals the dollar value, \$.
- The Microshare token equals the non-financial value token the \$+

While the financial value will be the same, the Microshare value of each coin, will be different. Microshares may attached to any coin in a new transaction and are individually calculated depending on the value being created as a result of that individual transaction. The Microshare values attached to the total family of coins however is shared. In the same way that the confidence of a currency or sovereignty affects its financial value, the growth in the circular economy of the microshare users and the values that are created within that group will positively affect the microshares values and totals.

The initial base currency is the SER coin which was issued to raise funds for the Seratio Platform. Unlike other coins which are issued by vibrant communities such as Women's Coin or Carer's Coin, owning this coin means participation in the Seratio Blockchain project, the starting foundation and initial Microshare issue.

We believe the SER Family of tokens, will become known as "The Cryptocurrencies with Values". Recognising there are different value sets, for each community group, whilst sharing overarching standards of exchange, acceptance and recognition, all of which create confidence, stability and growth. As people are a member of more than one community, so it would be normal for us to hold multiple branded tokens in our wallets. Any new minting of the SER Family tokens will create new markets and new demand. This will ensure the continued expansion and usage of Seratio Platform and Seratio Token acceptance. In time, it

is CCEG's ambition that community voting and governance will be built into the blockchain technology of Microshares, creating vibrant connected digital communities and economies.

### **The Seratio Wallet**

The Seratio Wallet allows financial and non-financial assets to be stored and transactions to be initiated. This includes

- financial coins – that is all SER family coins
- non-financial and intangible assets in the form of Microshares

Where Coins and Microshares of the same brand are owned, these will be paired.

A Wallet can be issued to any entity that carries out transactions - a person, organization (charity, business etc). Microshares can be issued regarding the non-financial data about an organisation / project / product / process / person by authorised but distributed entities and third parties and recorded on the Seratio Platform.

The Seratio Wallet allows the setting of the wallet holder's Non-Financial Preferences - "NFP's" which are stored on the Seratio Platform. Use of the Seratio Wallet enables these preferences to be enacted by a smart contract, which gives the ability to confirm or reject a transaction based on the NFP's.

The NFP's may be amended by the Seratio-Wallet holder at any time. It is important to note that the use of NFP's is optional when transacting SER tokens. It is initially available when using the Seratio-Wallet. Microshares can be transacted through the Seratio Platform but do not have to be featured in any SER token transaction as a rule, simply optional. Equally a SER token could transact together with corresponding Microshares on some occasions, with no financial value.

The recipient can choose which SER family coin or Microshare can be traded by setting the preferences on their Seratio Wallet. Otherwise all mixes of coins will be acceptable in any trade.

In practice, it is likely that most retailers will accept all SER coins and their associated Microshares. However, individuals may choose to limit the value scores they are prepared to accept – in which case, there are some instances where a transaction will be rejected.

### **The Seratio Platform**

The Seratio Platform will be a ledger for the non-financial Microshares, and will draw its data from information provided by distributed stakeholders such as Certification bodies. This will be supplemented by CCEG's own data, and all this is translated using the SE Ratio®, which enables the calculation and issuance of Microshares using multiple recognised measures and metrics already in use.

## SECTION 3: THE MICROSHARE

### 3.1: THE MICROSHARE: A 'THANK YOU' TOKEN.

When someone does an act of kindness, we might buy them a bunch of flowers. If a workman is doing some work for us, we may offer them a cup of tea. We tip the waiter or waitress to acknowledge their efforts in making our experience feel good. A Microshare is a token of expression of appreciation for something good that has happened – some social or environmental value has been created.

- It could be awarded to a **person** for an act of kindness that someone has done.
- It could also be awarded to a **product** as an acknowledgement:
  - o that some **goodness has been created**,
  - o or that something **has been created in a good way**.

Hence a product could carry a Microshare. This record is held on the Seratio Platform, indicating that it has been awarded certificates of excellence such as a Fair Trade Mark, Forestry Stewardship Council, or an Anti-Slavery accreditation. The information is held on the blockchain to provide an immutable record, tracking its provenance.

#### **It is not a currency**

Unlike a currency it is a token that is not a store of money/value. It is not like the SER Tokens or BitCoin – or any cryptocurrency tradable on an exchange. It is not backed by a physical asset. It is not an investment, and direct financial appreciation is not the primary goal. To expect it to do these things is to miss the point.

While a currency lubricates the flow of financial, tangible value between people, the Microshare lubricates the information flow of non-financial, intangible value – that is, the social and environmental goodness.

#### **It is not just a reward – it is an acknowledgement capturing goodness**

Traditional reward schemes like coffee loyalty cards, or Nectar points involve a retailer encouraging customers to purchase products in their shops so they can earn reward points. This reward is then redeemed at the same retailer. It is a purely commercial transaction. Each reward is earned and used once only.

Conversely, Microshares may be redeemed by retailers at a rate they choose, to acknowledge that someone has done something worthwhile, acknowledging the value of the non-financial element of our lives. The retailer is deliberately rewarding a good action that has benefited the environment or society.

## 3.2: DESIGNING THE MICROSHARE

### **An Exemplar of the life-cycle of a Microshare**

Microshares are initially rewarded when social or environmental benefit is created. Usually the awarding bodies are charities or organisations. The retailer then becomes involved in redeeming the voucher; in effect, paying the cost of the reward.

The next stage for the retailer is to decide what to do with the Microshares that have been received. They can either

- Sell the Microshare to another party, who will take on the cost and pay for the value that was created by the volunteer. This party might be a philanthropist, or a large company that wants to fulfil its objectives to create social value. For instance, a company in the supply chain that is not customer-facing will have little opportunities to create social value, so could choose to buy the social value this way.
- Return the Microshare back into circulation by offering it in an incentive scheme to encourage more business. (e.g. 'One Microshare given with each cup of coffee')  
Donate the Microshare back to a charity of their choice, (or to the CCEG UN Blockchain Lab) so that they can be used to encourage more social value to be created. This will result in CCEG noting this donation, and will increase the charitable giving during that financial year, hence will increase the retailer's Microshare earning capacity in that financial year.

### **Lessons from other reward schemes**

All reward schemes differ from currencies and a significant challenge is the prevention of hoarding, with a risk that an issuer will be able to redeem the token any time in future, in any quantity, at any retailer - which could cause problems. In fact, it is very advantageous to incentivise the fast flow of tokens – to improve the flow and increase the number of interactions. Other schemes have found that this has major benefits in bringing together the community, which is a real benefit in a world of increasingly isolated lives. Reward tokens can mitigate the risks of hoarding in two ways – by giving a notional value to the token, and/or giving the token a time-limit.

### **A time-limit with a difference?**

Reward tokens are usually time-limited – eg from 1- month or more. For example, one could propose one month. After this, tokens usually expire, but a growing number of successful schemes (such as Scrip Money, Worgl, Chiemgauer and Regiogeld – see appendix) introduce an opportunity for the owner to 'renew' the token for a further period – for a small fee of,

usually, 3% - which can go towards the local community/charity. The Microshare could use this approach, with a minor deduction of for Seratio's operating costs. This fee would be payable in a financial token such as fiat or SER tokens.

While on the face of it, 3% sounds a lot, it will only occur in a small minority of cases, and only at the choice of the owner. Here is how it works:

When a Microshare is transacted, the one-month period is re-set and the new owner receives the full month. The owner's Wallet will have a default setting to always spend the coins with the closest expiry dates. This means that while a month may seem a short time, any active user will rarely reach this point. The whole process can be made smooth and easy as the Wallet owner can choose to automatically renew the expiring Microshares.

The result of this process is that active users, mainly the less well-off volunteers - will never need to renew tokens. Occasional users will have a choice to let some coins expire or contribute the fee which goes to charity. When a non-user (someone who doesn't have a Seratio wallet) is given a token, it simply means the Microshare comes out of circulation. This could automatically be re-issued to the local community/charity if the balance of supply and demand allows.

The income stream for charities creates an incentive for charities to engage in the Microshare scheme, and will drive the growth. The charities will also be encouraged to recruit more retailers.

While the process in effect amounts to a negative interest charge, the token owners will be more than happy to make this 'donation' to the local charity/community, as they already believe in the cause and the evidence from previous schemes is that such practices have received wide-spread approval. The benefits to charity can be significant.

Some owners will not care too much about renewing the token, and let it lapse, coming out of circulation. This allows for more tokens to be created by CCEG – or not – to optimise supply and demand overall, and in each locality to match retailer coverage. In practice, we may find the 3% fee may not be optimal and will also need to be adjustable.

### **Providing a Voice and a Community**

Encouraging active participation will help to build the community spirit. But the use of the blockchain's ability to provide voting rights and hold reputation will also serve to raise up new leaders in the community. Stage two of the development the Microshares could include the following functionality:

The users will be able to earn voting rights and reputation, according to how active they are, to encourage people to build their reputation and influence. There could be badges awarded as follows, each with increasing privileges.

The badges could include a basic user, a volunteer with voting rights, an advanced user able to allocate Microshares to local businesses, a 'Guardian' who could mentor businesses on sustainability and even contribute to developing metrics in the Seratio platform, and a local co-ordinator, organizing offline and online activities and being responsible for maintaining their local Microshare Digital Hub.

These badges would be awarded according to their level of activity and reputation measured by frequency of transactions, number of Microshares traded, ranking among peers in terms of their Wallet's SE score, and reputation as voted by other users.

The strength of this is that the community is built round interactions of volunteers – both with charities and businesses. All this empowers the local community.

### **Keeping it local**

The blight of many communities is the flight of value out of the locality to investors elsewhere who hold on to it. Small businesses struggle in small towns – and in the UK some high streets become deserted and succumb to high crime rates. Hence the creation of local currencies like the Brixton Pound and the Bristol Pound aim to prevent capital flight and build the community.

The Microshare can contribute to the building of communities by ensuring that value remains close to the people who created it. Hence, we envisage a global 'tethered' token.

A tethered token is a new concept. Thus, Microshares spent outside the community, will benefit the original community more. It has a counter-effect to capital flight.

### **The Microshare tracks its own provenance**

The SER token family of crypto-currencies enable each coin to carry an indicator of its provenance. This means that while the face value of the coin remains the same, other recipients may or may not want to trade the coin due to its provenance. People will be able to recognise how the coin has been involved in the increase or decrease in social value throughout its journey since it was created.

The Microshare is no different.

How the provenance of Microshares is attributed in the issuance process

1. CCEG and its licensees measures the social value that an organisation helps to create. This may be a charity – which we will refer to as an Awarding Body
2. CCEG and its licensees calculates the costs incurred and the benefits created to allocate a Social Earnings Ratio – or SE Score. This acts like a reputation indicator:



the higher the score, the more effective the Awarding Body is in producing social value

3. CCEG mints Microshares and issues them to that Awarding Body, in relation to the social value created. (These Microshares may be branded with that Awarding Body's name)
4. Microshares bear the SE score of that Awarding Body, and can be branded with that Awarding Body too. While the SE score is the only immediately visible piece of information with each coin, the full information can be accessed from the Seratio Platform
5. The Awarding Body awards the Microshares, (with the accompanying SE Score) to any person (eg volunteer) or body that contributed to the creation of the social value, as the Awarding Body sees fit.

How the provenance of Microshares is tracked during circulation

6. The volunteer receives the Microshare with associated SE score into their Wallet. The Wallet will contain many Microshares issued by any other Awarding Bodies, and that have gone through many transactions. They will all have their own SE score according to their provenance.
7. The Wallet re-calculates the overall average value of the SE scores of all the Microshares in the wallet, and this becomes the 'Personal Wallet SE Score'
8. The Microshare, will now have a new SE score which combines the volunteer's SE Score, and the SE score it had when it was received.
9. The Volunteer can then spend the Microshare with the SE Score
10. So, as the Microshare circulates, each time it passes through a person's/organisation's wallet, its associated SE score increases or decreases.
11. The result is, using this SE Score, any coin can be recognised for the provenance – good or bad – of the wallets it has passed through.
12. This enables users to discriminate positively, and creates transparency around to origin of the token. Users and businesses will be keen to ensure they have higher score, creating a race to the top.

In summary, every transaction of a Microshare carries the SE score as an indicator of the goodness associated with it. This level of transparency has never been achieved before, and will make the users and businesses accountable to each other in the course of every transaction. This drives improvement as businesses start to compete in the race to the top to benefit the society and environment.

### **Why Microshares can contribute to achieving the UN 17 SDGs**

The Microshare enables any product or activity to have its value recognized – and rewarded. Indeed, people who contribute positively to society and the environment can now be recognized and rewarded. Those organisations, activities, products and services that contribute positively to the Global Goals, will have a high rating – like a 5-star rating or an

energy rating of A to E. Conversely, products that negatively impact on the environment or society, such as a high carbon footprint – or a risk of modern slavery in the supply chain, will have a low rating. This will enable customers to make better choices, which is vital in working towards the Global Goals.

There is a huge variety of excellent certification schemes that can tell us which product or Organisation meets a particular standard. But the variety has caused confusion, and prevents large-scale adaptation. The SE Ratio is the universal metric that can take all these existing metrics and translate them, bringing them together into a single rating. Using the power of the blockchain, CCEG can enable people to dig right into the detail on their smartphone too.

### 3.3: WHAT CAN A MICROSHARE BUY?

Microshares will be offered in exchange for goods or services entirely at the discretion of the retailer, and most likely it will be used as a way of increasing traffic to the retailer ie discounts, free items, or simply used as an alternative to currency.

The value of a Microshare will not be fixed to a currency. Neither is it an alternative method of paying wages. There is no fixed measure for intangible value, but we could look at these examples

1. Time. When a good deed is done, it may take an hour of someone's life, whether they are wealthy or not. Rewarding social value in using this notional benchmark has merit, especially as 'an hour' or 'a day' can be applied and easily understood in different countries, with different currencies.
2. Tips (gratuities). A common tip of 10% of the cost of a meal is a mark of appreciation for the intangible value of receiving a good service, and a thank you. A tip is an expression of intangible value.
3. Incentives for donations. Charities in the UK are allowed to give incentives, but generally speaking this cannot be for more than 20% of the value of donation.

Taking these factors together can give us a starting point which we can use as a basis for modelling the Microshare. Hence, in the UK:

- National Living wage is £7.50 per hour
- National average wage (£27,600pa) = £16.43 per hour
- And multiply this by 10%, we get
- 75p-£1.60
- This rate fluctuates regionally with local market conditions, so retailers will be asked to use prevailing local rates as benchmarks.

Retailers would use this as a 'minimum standard' when structuring discounts and offers.

Like all token schemes there would have to be rules to ensure retailers had confidence. For instance, should there be a limit on the number of Microshares tradable? This may not be a major issue as Microshares are not legal tender, so there is no obligation on a retailer to accept them. Certainly, retailers will need to be clear about the terms and conditions of their offers

In addition, care needs to be taken not to flood the market in a locality such that retailers lose confidence in that benchmark.

### 3.4: THE LAUNCH

#### **Stage 1: NGO's and major retailer 'air-drop'**

- Several major retailer chains from complementary sectors will be recruited to accept the Microshares, and will prepare special offers for their stores.
- NGO's will also be key to recruiting retailers, because charities are the major beneficiaries of the scheme, and for the scheme to work, they need to have retailers. Many charities already have retailers as sponsors, but new retailers can be recruited with Microshares in mind
- Investors in the ICO will be encouraged to select local charities and/or retailers and join in and 'air-drop' Microshares as an act of philanthropy.
- The locations and catchment areas of these outlets will be plotted
- A number of charities will act as distributors, and at a stated launch time, will 'air-drop' Microshares to the supporters in the designated locations.
- The allocation to supporters can be according to the charities own criteria, and to create the necessary initial liquidity, will be issued as 'back pay' reward for last x month's contribution. (In subsequent use of Microshares, these will be most likely issued 'as and when' people create value)
- Charities and Retailers, having a clear knowledge of the potential financial returns, will use their existing marketing budgets and Sustainability budgets to create charity communications / instore promotions.
- A centralized geotargeted advertising campaign will support the charity communications and instore promotions, focusing on geotargeted social media and ambient media.

## Stage 2: Expansion to other, smaller retailers

- To broaden the retail user base, these retailers will not be recruited centrally, but through two decentralized mechanisms

- **1. Certificate-issuing bodies**

- via their own participating business-to-consumer (B2C) businesses, which hold these certificates - eg Fair Trade, organic, vegan, sustainable towns networks?
- These certificate issuing bodies will act as awarding bodies in the same way as the charities described above, ie they will be assessed by CCEG for their creation of social value, and issued Microshares which they air-drop to the local outlets for distribution.

- **2. The new Microshare user-base**

- The user-base of charity volunteers will be able nominate and register their favourite outlets that they frequent, and reward them for actions that create positive impact – such as Fairtrade products, renewable energy, waste recycling, organic food, hygiene standards – or indeed any certification they may have that indicates social value.
  - These charity volunteers submit nominations, and are rewarded with Microshares for doing so, since they are creating value in future of Microshares, which will contribute to the SDGs in future
  - Other charity volunteers, with a level of ‘reputation’ will evaluate and verify these nominations, and award Microshares.
  - The awarded Microshare information is forwarded to CCEG to generate an SE score, and award the SE Ratio
  - The outlet (?) then becomes an awarder of Microshares with the SE Ratio it has been given.
  - The process could be ‘gamified’ whereby the first volunteer to register the outlet becomes a ‘guardian’ for a year. This means, they are rewarded for the value the newly registered outlet produces for a period of a year. This, they would receive Microshares to the value of 10% of the Microshares of those earned by the outlet in the first year. This serves to
    - Attract a particular segment of younger, possibly unemployed people who see a potential to earn more than average by recruiting outlets that will earn them a commission
    - Encourage those ‘guardians’ to nudge those outlets to ever more virtuous behaviour, enabling the shops to earn more Microshares, and become more sustainable.

### **Stage 3: Developing a thriving and sustainable model for vibrant communities**

- The Microshares will be a platform for vibrant communities to express their values and further build up their communities, increase interactions, empower them, and further their causes. In particular:
  - The communities would be able to award positive actions that they deem valuable
  - The Microshare would carry their brand
  - The Microshare could generate sustainable income stream

## **SECTION 4: CURRENT DEVELOPMENTS**

### **4.1: THE MICROSHARE IMPACT EXCHANGE**

What CCEG has developed through the S/E Ratio is a mechanism for ...

- Measuring non-financial value
- Turning Sentiment into Financial-Value
- Doing it using Fast Data (< 10 seconds)

The representation is captured in the tokenisation of intangible value - “I love you UK£ 4.50”. Since we can digitise and transact love, hope, ambition, generosity, kindness ... then we can transact it through the Seratio blockchain. And we can do that, then we can place it on any asset base platform to exchange for FIAT, Gold, commodities, land, etc and vice versa ... swapping hard assets for Health & Wellbeing, Happiness, etc. We have started discussions with platform providers like CoreLedger ([www.coreledger.net](http://www.coreledger.net)) for an April 2018 launch, as well as other trading platforms.

The tokenisation of soft intangible values means we can leave the asset where it is and commoditise the token. This shift from commodification to commoditization means that someone doesn't transact happiness, ie one person loses happiness when someone else gaining it, but the happiness can be shared and benefits both parties with zero net loss.

The natural progression for this would be an Impact Exchange for Impact Investing, Faith Investing, Corporate Social Responsibility (CSR), where Proof-of-Impact is an attribute measured using S/E Ratio (the corollary to the P/E Ratio) which through a Smart Contract determines the financial component of the transaction or the degree of it. It is important to understand that the S/E Ratio at this point is a translator of other impact metrics and attributes onto the blockchain, and not necessarily the process itself of arriving at a score.

Much of this lends itself to conventional market instruments such as derivatives, swaps, futures, based on impact not just financial outcomes. For example too long has mission led financial instruments such as Impact Investing and Faith Finance focussed on negative sentiment – where not to invest (arms, nuclear, modern slavery, etc) but failed to move forward, and thus transact, the positive values of the institutions and investors. The outcomes have been split from the finance. Microshares has the ability to unite the financial value with the social values of the mission.

#### 4.2: MICROSHARE TOKEN ATTACHED TO OTHER CURRENCIES

At present the SER coin is a financial token on the Ethereum ETH platform. Technically however it is possible to unpeg the connection to both SER and ETH, and have Microshares attach itself to any digital cryptocurrency thus broadening its use. Thus Microshare can be a tradable token in its own right attached to any digital currency (including e-Money) and any non-financial metric. In February 2018 we are planning the development of an Ethereum Classic ETC based Microshare Token to do just this, piloting a system where SER is based on ETH, and Microshares based on ETC.

Ultimately we believe that the Seratio Blockchain may well in itself become a new class of chain with its own consensus mechanism. Current funding does not allow for us to pursue this as yet which we have scheduled for 2019.

#### 4.3: NON-FINANCIAL PREFERENCES (NFP) AND AI BOT (U-BOT)

Being able to digitize our values means they can be stored remotely and operate independently from us. In the new breed of personal assistants such as Alexa, Siri, Bixby, Cortana, Echo etc the Artificial Intelligence is brought into our homes and on our mobiles to be our guide, our partner and now – with Microshares – our digital conscience. Starting November 2017 we are working on a mobile app, the U-Bot, that provides this capability for digitally capturing our Non-Financial Preferences (NFP) and making them available to us on a mobile for ...

### a) Shop with a U-Bot digital conscience guiding our retail NFP

This is not an abdication of our responsibilities but allowing U-Bot on our mobiles make NFP transactions, suggest consumer choices, and deliver a more sentient AI with a conscience.



### b) The Ethical Leadership U-Bot for Corporate Navigation

Traditionally what matters in corporate life, and what it focussed on in terms of informing Value Creation decisions, are Financial Returns for Shareholders. But now, with the Seratio Blockchain and using Microshares we can now explore the grey boxes in the usual corporate matrix. We have teamed up with Leadership experts Mission Performance ([www.missionperformance.com](http://www.missionperformance.com)) to do just that.

	Financial Benefits	Non-Financial Benefits
Quantifiable	P/E ROI ££££££££	Lower risk
Non-Quantifiable		Brand & Loyalty Reputation Competitiveness

- *What if* you were be able to model and accurately measure the impact of strategic decisions on all the forms of value - financial, non-financial including ethical - that matter to you across 4 dependant stakeholder groups, so that you optimise the *total* value your organisation creates, over time and space.
- *What if* you could also understand the impact of creating non-financial and ethical forms of value on the sustainability of traditional financial value? That is the impact of morally courageous decisions on long term financial value.
  - By making other forms of value, including ethical value, transparent we can move beyond mere compliance and make them matter or matter enough to trigger a different decision even if this is not mandated
  - *What if* you could take various forms of bias out of decision making by aligning more decisions more consistently with what matters to you
- *What if* you could bring your culture, behaviour and decisions throughout your organisation fully in line with what you and your people value most?
- *What if* you could be more competitive by demonstrating wider value
- *What if* you could transact the total financial and non-financial value you create using Blockchain
- *What if* you could further optimise future decision making by using AI to interrogate the relations between decisions and those forms of value that matter most to you

**The Leadership U-Bot leads to better alternatives – triggering Decision Making that not only considers but *acts* on a wider set of value outcomes.**

### **c) A U-Bot programmed with a Clearer Vison of Mental Health**

In November 2017 we will start developing a mobile app, a U-Bot, that you can program with your value set, or the values you want or don't want, and U-Bot will be your life companion. S/he will guide you through good times, and the bad. What would my late father advise in this situation, or are those voices real I'm hearing? U-Bot can reach out to get help, or just keep your thoughts between you private.

It can help as an intervention in mental health disorders by replacing our translator of reality or navigator through life crisis ... it replaces our consciousness with a different (possibly more accurate) reflection of what is in front of us rather than be dependent on a faulty set of internalised constructs. In psychosis, for example, it replaces the voice-hearing paradigms with a more robust and comforting aid to our thoughts.

In short, we cannot seem to be very able to reprogram our thoughts (and dreams?), but we can codify an AI-Bot to replicate, repair, aid, deny, reaffirm, etc our thoughts whether awake, in a dream, or in a psychotic event.





We have identified resources from both coders and neuropsychiatry to begin this work in November 2017 the implications of which could be far reaching.

## SECTION 5: GOVERNANCE

The Seratio platform and blockchain on which the Microshare and the Seratio cryptocurrencies are built are a powerful tool which we want to offer to the global community including our effort to achieve the 17 UN Sustainability Goals. As such, we seek to have a blockchain governance structure that:

- Is inclusive of a balanced cross-section of the global community
- Is linked to the relevant UN structures relating to sustainability
- Draws on expertise from the community of sustainability professionals
  - at UN level
  - from other peer bodies in the field of sustainability reporting
  - from businesses, large and small
- Has representatives of civil society and the NGO sector

In addition, an SDG Trust fund will be set up which will fund future development of the Seratio (SDG) Family Coins and Microshares.

These issues are currently being explored and will be the subject of a future CCEG Whitepaper.

**Looking ahead, there is a potential for local communities to further develop ways that the Microshare, and its unique features, can help to build up local communities. This is beyond the scope of this paper.**

**Here, we can only say that we do not know the future. That future is, to a large extent, in the hands of pioneers in this area – like yourselves as investors in this highly innovative blockchain project.**

**Welcome to the team.**

## SECTION 6: BACKGROUND INFORMATION



Information on the open source Social Earnings Ratio® (Creative Commons, 2011) may be found at the Open Source not-for-profit Think Tank, Centre for Citizenship, Enterprise and Governance ([www.cceg.org.uk](http://www.cceg.org.uk)) which focuses on Movement of Value. CCEG has received over 100 commissions, shown at [www.socialearningsratio.com](http://www.socialearningsratio.com) and operates 10+ SaaS platforms through the trading arm Seratio Limited ([www.seratio.com](http://www.seratio.com)). CCEG has over 92,000 members including 7,000 heads C-Suite Executives of the world's largest companies and 2000 politicians. Members receive the journal Social Value & Intangibles Review <https://issuu.com/seratio>. CCEG has founded the IoV Blockchain Alliance for Good (Bisgit.ioV) at [www.bisgit.org](http://www.bisgit.org), as well as the [CCEG Blockchain UN Lab](#). CCEG and Seratio are spin-outs from the University of Northampton both adhering to the [Blockchain Manifesto](#). Other divisions are CyberFutures ([www.cyberfutures.net](http://www.cyberfutures.net)) and the newly acquired Efficiency Exchange ([www.efficiencyexchange.ac.uk](http://www.efficiencyexchange.ac.uk)).

### 6.1: WHITEPAPER SCHEDULE

Updates are available at: <https://github.com/seratio/whitepaper>

- 1.0 Currency of Intangible Non-Financial Value (October 2016)
- 2.0 Values Based Impact Interventions (December 2016)
- 3.0 Impacting With Value: Capture-Translate-Transact-Report (February 2017)
- 4.0 Seratio Platform Architecture (March 2017)
- 5.0 The Blockchain Educational Passport (April 2017)
- 6.0 Seratio Initial Coin Offering (August 2017)
- 7.0 The Microshare (October 2017)

### 6.2: CONTACT

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# APPENDIX I: FAQ FOR INITIAL COIN OFFERING (ICO)

## What is a Microshare?

The MICROSHARE is a term we use to describe a unit of non-financial, intangible value gained by **people** through many activities including ...

- volunteering
- social credits
- being a care giver
- buying products with positive provenance
- shopping in the 'good' retailer

and awarded to **products and services** that have a positive impact on society and the environment through things like ...

- the materials they use
- the processes in which they are made
- the energy conserved
- the impact of the product in use
- the impact of the product post-use

In short, any entity that creates social value and contributes towards goodness, for example the 17 UN Sustainable Development Goals can have an associated Microshare.

This token can be used as a 'thank you' when someone does a positive action. Awarding a Microshare could be compared with giving a tip to a waiter or waitress, or like buying lunch for a volunteer giving a day's worth of their time to care for someone. But instead of that physical activity, the Microshare token can take its place.

## How many Microshares will I get, and what are they worth?

For every GBP£0.20 SER coin purchased during the ICO, we will issue a corresponding Microshare.

The aim of a Microshare is to reward activities of social value. So, your Microshares are issued to you as a reward for investing in the project which has the potential for the creation of a large but unknown amount of social value. At this early stage in the project, we can only make this decision in a completely arbitrary way.

This is not a cryptocurrency, so has no direct financial value. The intention is that it will be exchangeable for discounts on goods and services at retail outlets that we intend to recruit over time.

As a guide, we are working to ask retailers to pitch the value of the value of their discounts such that one Microshare will be worth around 10% of an average hourly wage in their particular community.

The nature of the offers will be up to the retailers, and initially will be limited. They will be likely to make these offers to suit their business objectives. For instance, a coffee shop wanting to increase footfall could offer a cup of coffee in exchange for a Microshare.

### **When will I receive my Microshares?**

On 30<sup>th</sup> April 2018, Microshares will be issued to SER coin registered owners as at 31<sup>st</sup> January 2018. As the project is only being started since the ICO, a lot of work needs to be done to build the software, and then prepare the retail network. Activity to promote awareness, acceptance and market place will begin from 1<sup>st</sup> November 2017

### **When can I spend the Microshare?**

On April 30<sup>th</sup> 2018 you will receive your Microshare, but the development of the network will still be in progress, and you will ~~only~~ be able to spend the Microshare when retailers and outlets are recruited. Online retailers and community specific retailers will be recruited to offer discounts for Microshares. The ability to transact and get value from Microshare will grow as our communities grow.

### **Can I use the Microshare as a donation?**

Yes, by giving a Microshare to someone – or to an organisation – it is a ‘thank you’. In future, when the retailer network is launched, they can then go and spend the Microshare.

### **I want to use the Microshares to do some good. How do I do that?**

Remember, anyone who owns a Microshare has created some social benefit. By owning it, you have paid the price tag of the social benefit that the Microshare will produce. We’ve awarded it to you as a thank you.

The Microshare is designed to be a great way of giving to NGO’s (non-government organisation). For example, you will be able to give Microshares to an NGO of your choice, who will use them to reward – or incentivised their volunteers. They may give them as a reward for voluntary work in achieving the changes that you and your NGO want to make. Another way they could use it is by rewarding fundraising activities – multiplying the value of your input by leveraging more funds from others.

## How does the Microshare contribute to a better world?

While the goal of a better world is ambitious, Seratio's vision is about small things happening everywhere. It's about small actions that make life better in some small way. It is about small transactions, each one contributing a little. It is about small amounts going toward charitable activity. But the secret is that the Microshare is hugely scalable, and has no limits, once it is started. Multiply these small things a hundred billion times – which it is clearly possible - and we can realise our vision and contribute significantly towards a better world.

The Microshare contributes towards the Global Goals in three ways:

1. By providing a new reward mechanism for positive environmental and social actions

The Microshare is a token representing a unit of social value. This token can be used as a universal reward token that can be used in any situation. It can be given by anyone or any organisation, to anyone.

But it is solely used to reward good things, and its creation is strictly controlled. It is only minted when positive outcomes have been verified by Seratio using information provided by hundreds of independent bodies.

It will be redeemed by any retailer who wants to contribute to social and environmental change. By making a new, and easy way to reward people for doing good, we believe that more good can be achieved for people and planet.

2. By providing a new token that can circulate, each time it changes hands it has the potential to affirm positive actions for people and planet

Our theory of change is that if we knew whether the money we receive has been used for good or bad purposes, we would choose the good. If you were offered money that was clearly identifiable as 'bad' money, you'd avoid it. You'd know that others would not want to deal with you. So, knowing the history – the provenance – of the money you are offered gives you power to choose, and we would all choose a 'good' money. The Microshare uses blockchain based tracking software that will be able to identify where the money has been. It has a simple scoring scheme, the SE Ratio. A number 1 or more is good, meaning that it has benefited society and the environment. Less than one is bad.

3. By increasing giving to charities and the community – and empowering them

The Microshare has an additional built in charity element that benefits the local community where it is first issued. Other communities have introduced such schemes and raised funds to improve local amenities such as play parks. As they meet to plan the improvements, it has also brought communities together and empowered them. People have discovered leadership qualities they had never had the chance to use.

## **What right does CCEG have to create tokens of social value out of ‘thin air’? Surely, they are worthless?**

CCEG only issues tokens to an organisation when they demonstrate that verified positive outcomes are achieved. CCEG bases these on the evidence of hundreds of independent organisations that provide certification within their expertise. Seratio adds its own evidence by sampling both solicited and non-solicited views, and combines all these data sources into a single metric, the SE Ratio®.

## **Is the Microshare a crypto-currency?**

The Microshare is a crypto token, not a currency. It is the non-financial part of the SER 2-part token. So it does not have a fixed limit to the number of tokens issued. It is not intended as a payment for work like an hourly wage. It will represent the non-financial value accumulated in transactions and currencies. In time, it may be traded against other crypto-currencies recognising the value accumulated. It may, in time, be exchanged when the value store becomes a sought-after commodity.

## **What is the purpose of the Microshare?**

We all hold values. We all believe the world can be a better place. But the reality is, it is a world where there is conflict, corruption, poverty, oppression, resource depletion, pollution, and potentially catastrophic climate change. The Microshare offers can be a valuable tool that can be used to promote the positive values that we share as inhabitants of this planet.

In the hands of ordinary people, it could be used to affirm millions of good deeds, reward voluntary work, give voice through a vote. It can identify and affirm people who have a good reputation in their communities, raising up new leaders and increasing community participation.

After 6 years of research and development, the ability to transact social value [simply this?] has been made possible. The applications of this have hardly begun to be explored.

## **How can I earn a Microshare through Volunteering?**

If you create social value by doing anything for a registered Awarding Body, they may, at their discretion, award Microshares. Some charities may publish their approach to allocating Microshares, such as ‘We issue 1 Microshare for every hour you volunteer’.

## **What is the connection between Seratio Coins and Microshares**

The Seratio coin is the financial token. The Microshare is the non-financial token. The Microshare can accompany any Coin in the Seratio family, but it can also be used on its own.

## **Will Microshares be put on an exchange?**

Yes, and we have started to negotiate with one party to launch in readiness for the Microshare distribution in April 2018.



## APPENDIX II: EXAMPLES OF COMMUNITY CURRENCIES

### (People Powered Money - Designing and Developing Community Currencies)

#### ***Scrip Money***

*Aiming to match unused productive capacity with unmet needs as the conventional money supply contracted, scrip money incorporated some form of 'demurrage', or negative interest. This required stamps to be purchased at regular intervals in order for the money to remain valid at face value, effectively decreasing the value of stamp scrip over time and thereby incentivising spending and discouraging hoarding.*

#### ***Chiemgauer***

*The Bavarian Chiemgauer is the first and largest of Germany's Regiogeld initiatives. The currency incorporates demurrage, or negative interest: in order for Chiemgauer notes to remain valid at face value, a token must be purchased and attached every three months. This incentivises spending and discourages hoarding, meaning that the Chiemgauer circulates more rapidly and frequently than the euro. The 600 SMEs in the network meet around 50% of local people's needs. Around 2500 users and 250 voluntary Organisations also use the Chiemgauer.*

## APPENDIX III: HOW WILL THIS BE DONE?

*There are many options, here is just one possible 11-step strategy:*

1. **GATHER DATA** Complete the creation of a global database of Organisations and their social and environmental impacts using the 17 Global Goals framework, drawing on the vast array of sustainability data available from third party accreditation agencies, supplemented by unique information acquired using the Seratio Platform's own powerful data gathering engine
2. **TRANSLATE, SIMPLIFY** this data into a simple 5-star rating system using the SE Ratio which is recognized and used by government agencies around the world
3. **MAKE AVAILABLE** the ratings system in the mass market worldwide in a highly visible way (digitally on smartphones, and at point of sale) on an accelerated timescale to enable people who hold values to recognize those values in Organisations, products and services and discriminate positively
4. **CREATE TRANSPARANCY** in the supply chain by enabling the simple identification of the businesses, products and services that create social value – as well as those that do not - and using this to enable the public to exert their influence among businesses and create 'a race to the top'.
5. **ENABLE TRANSACTIONS** of 'social value' through a new mechanism – the Microshare which represents a unit of social value, and can be used to reward the creation of social value and enable people to discriminate in favour of creation of positive social value
6. **FACILITATE REWARDS** by creating an extensive reward network of opportunities to spend the Microshare among retailers thus rewarding those who create value, and those who support the creation of value
7. **ENGAGE VIBRANT COMMUNITIES**, including major charities, in setting up and running the reward networks specifically tailored to promote the values they hold dear
8. **DISTRIBUTE THE MICROSHARE** through these vibrant communities who will be allocated free Microshares to 'air-drop' to their volunteer networks inviting them to download a wallet on their smartphone which contains the free Microshares. The number of Microshares each network receives will be calculated by Seratio according to the social value that their network has created in the previous year.
9. **ENGAGE RETAILERS** starting with major retail chains who will be keen to use Microshares to give discounts to volunteers in order to gain new customers, increase the foot-fall and engage their customers in shared concerns
10. **PROVIDE A DIGITAL HUB** tool to enable communities/charities to
  - Manage the reward process among volunteers to incentivise the most effective activities in achieving their goals

- *monitor the progress, make adaptations,*
- *develop ways to encourage the growth of the network and active participation in it*
- *actively promote their causes by encouraging businesses to become ever more virtuous, resulting in continuously greater social value.*
- *Provide opportunities to raise highly prized non-earmarked funds that otherwise would not be available, enabling them to build the community they want*
- *...and also, specifically for businesses, an adapted version will be provided as an enterprise tool to run Microshare promotions and customer engagement campaigns promoting their chosen charities*

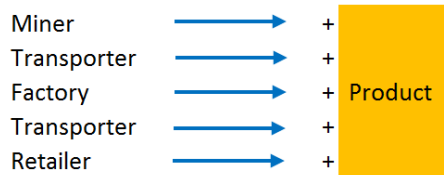
**11. SEE COMMUNITIES AND BUSINESSES THRIVE** *in a continuous upward spiral.*

- *Charitable activities will increase by engaging more volunteers, and through them the disadvantaged, the poor, and the environment are better cared for*
- *Every transaction in the circulation of Microshares prompts the buyer and seller to consider the social value they are exchanging, and discriminate in favour of the creation of higher social value.*
- *Local businesses see more footfall, and increasingly, local, virtuous businesses will become more viable*
- *Businesses and charities discover the need to improve their ratings, and begin a journey of designing their businesses from ground up to put society and the environment at the centre of their business models*
- *Local users will coalesce around the greater interactions in their locality. They will be empowered by an ongoing and increasing income stream from the Microshare system and begin to re-generate their local areas*

## APPENDIX IV: SOME EXAMPLES FOR NGO'S/CHARITIES

- **Example 1**
  - *A charity decides to award Jenny 7 Microshares for a day's voluntary work (they have decided to give out Microshares at notional value at 1 Microshare per hour, which is a reward of about 10% of local average wages.)*
  - *Jenny goes down the High Street and sees two coffee shops – both offering a Cappuccino at £2.50. One is offering '£1 off with a Microshare', and the other is offering a free coffee with 2 Microshares (pricing the value of a Microshare as £1.25).*
  - *Down the high street, the Deli is offering a £10 meal, and takes 50% of the value in Microshares at an easy-to-calculate rate of £1 per Microshare.*
  - *So, Jenny decides to get a free coffee with 2 Microshares, and a half-price meal at £5 + 5 Microshares. She feels that she has had a little something in return for her volunteering.*
  - *The next day, Jenny has no Microshares and sees that the Deli has a glut of pears normally priced at £1.50 per bag. They also have quite a lot of Microshares. There's a special offer – 'we'll give one Microshare with every bag of pears!' Jenny buys some and feels she's got something for almost nothing. The shop is glad to have been able to shift the pears before their sell-by date that evening, and recovered the cost.*
- **Example 2: Use by a charity**
  - The local hospice is having a charity auction. They've been allocated Microshares and are thinking of creative ways to use them. They announce, we're giving away 1 Microshare for every £5 for any item sold above £20. (This keeps the charity within the UK's 20% reward guidelines). It works a treat, and there is a light-hearted feel in the room. Bids quickly rise to £20 or more, with some people paying silly prices for small items, just for fun. The charity raises much more than last year.
  - For Products in a supply chain, the approach is that Microshares are added as value is added – like Value Added Tax, but adding rewards, not tax. A barcode links the product to the Seratio Platform where detailed provenance information is kept.

#### Provenance



Various suppliers add/subtract value to a ledger in sequence  
 The value accumulates, and the net value remains at the end along with an SE Ratio that indicates efficiency  
**THE PURPOSE IS: incentivising creation of value by enabling purchasers to discriminate re virtuous activity/products**

#### • **Example 3: Use in provenance**

- *The Stockport Coffee Roasting Company buys its coffee from a supplier registered with the Fair Trade Foundation.*
- *The Fair Trade Foundation has been awarded Microshares by CCEG for the extra social value their registered farms have created. CCEG has based this calculation using various published data, non-solicited online comments and solicited comments through questionnaires, as well as taking account of the future cost of the CO2 emissions that the farms generate – or offset.*
- *The Coffee company decide to pass on the Microshares to the farms – and to the Roasting Company. The Roasting Company produce 100,000 half-kilo packs a year, selling them to coffee shops at £1 each and have been awarded 10,000 Microshares. They bar-code each pack and register with CCEG that each pack carries a 0.1 Microshare. (remember from our example, the notional value of 1 Microshare is 1-hour's work at 75p-1.64 – so 0.1 Microshare is worth between 7.5p and 16.4p per pack.)*
- *The next year, they source paper packaging from a sustainable source registered with the Forest Stewardship Council and receive 2,000 Microshares. They also switch to a renewable energy supplier and receive 8,000 Microshares. Now they calculate*
  - *10,000 Microshares – Coffee*
  - *2,000 Microshares – Recycled packaging*
  - *8,000 Microshares – Renewable energy supplier*
  - *20,000 Microshares – Total*
  - *= 0.2 Microshares per pack*
- *Some packs are sold locally. Gerry runs a bicycle courier service round Stockport, and started up the Association of Sustainable Couriers. CCEG award him 3000 Microshares – and annually he makes 6,000 deliveries – so he can add 0.2 Microshares to each delivered consignment. So, when he delivers a package of 2 packs of coffee to a local coffee shop, he scans the bar-code on the delivered product, and this tells CCEG to add 0.1 Microshares to each pack. The local coffee shop also gets*

*Microshares for being registered with the Fair Trade foundation, and gets Microshares, which they give out at 0.1 per customer. When a customer buys a pack of the coffee, they tap their mobile to receive the Microshares which are calculated here:*

- *0.2 on the coffee*
- *0.1 – cycle courier*
- *0.1 – coffee shop customer*
- *0.4 – Total (worth 30p-66p using UK wage comparisons)*

The retail price is £3, so the value the customer receives for buying Fair Trade products from a local manufacturer is between 10% and 20% of the product.

On the other hand, a non-fair trade coffee shop in London having a delivery by van of the same coffee can only pass on 0.2 Microshares to their customers.