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***The application of blockchain technology to create
the cryptocurrency for Women***

WOMEN'S COIN

The global women's market is worth \$17 trillion. Women have decision making power of 60-70% of household spend. Women also now have greater access to discretionary spend, as more women enter the market place with higher incomes. The women's market is one of the few markets that is expanding. Women are big business.

Women use their purchasing power differently to men they are more likely to purchase goods and services that benefit family welfare. Hence the rise in organic, sustainable, eco-friendly products. Women investors are less concerned with market share favouring investments that benefit the family.

Recognising that women are different to men in how they spend their own and the family's household's money has led to the creation of an alternative form of currency created especially for women.

Blockchain technology (a giant open ledger) and the evolution of Ethereum blockchain smart contracts create a guaranteed execution and enforcement of payment, so creating total trust and a system that is almost immune to hacking. "Why a currency for women?" Why not - there is huge untapped potential. Not just in generating hard profits from an emergent women's market but in the "value" of a currency that is based on women's values. Values that will shape a world where future generations can be proud of the legacy left by their parents.

CCEG Blockchain UN Lab

Seratio Whitepaper 8.0

WOMEN'S COIN™ CRYPTOCURRENCY

Seratio Whitepaper 8.0: Women's Coin

Women's Coin™ part of CCEG's SERATIO® family of Blockchain solutions



Preceding white papers¹

Seratio Blockchain 1.0: Currency of Intangible Non-Financial Value

Seratio Blockchain 2.0: Values Based Impact Interventions

Seratio Blockchain 3.0: Proof-of-Impact Transaction Platform

Seratio Blockchain 4.0: Platform for Non-Financial Enterprise Solutions

Seratio Blockchain 5.0 Decentralised Learning Ledger

Seratio Blockchain 6.0: Initial Coin Offering

Seratio Blockchain 7.0: The Microshare

Women's Coin: www.womenscoin.com

Seratio Coins ICO Platform: www.seratio-coins.world

CCEG Think Tank: www.cceg.org.uk

CCEG Blockchain UN Lab: <http://mypad.northampton.ac.uk/cccg>

Internet-of-Value Blockchain Alliance for Good: www.bisgit.org

5th November 2017 [version 8.11]

¹ <https://github.com/seratio/whitepaper>

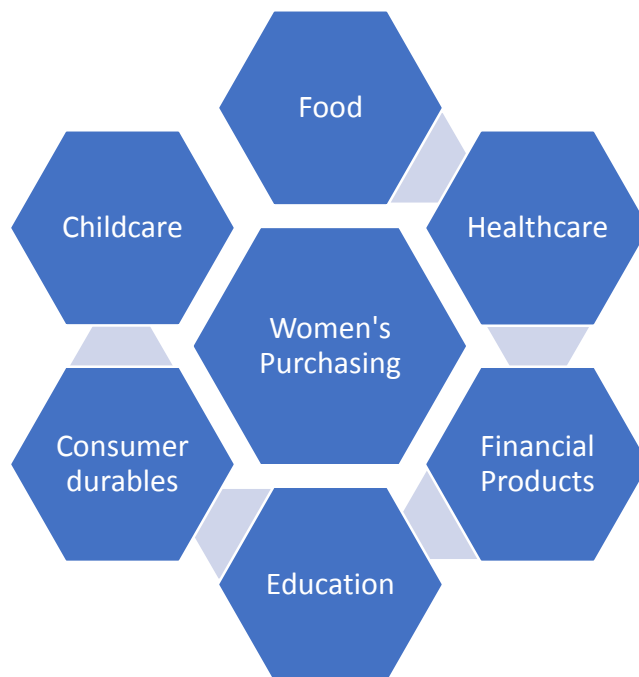
1 Vision

Women and families everywhere will benefit from the Women's Coin

1.1 Women purchase differently from men

The concept of “Women's Coin” crypto-currency is based on market intelligence and research that has provided evidence that women purchase differently to men. Women are more likely to purchase goods, service and investments that benefit family welfare. Women's value based purchasing is not just a trend in developed countries but is seen across the world and, according to Goldman Sachs intelligence, is also prevalent in the ten G20 countries: Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa and Turkey.

Goldman Sachs spotlight on G20 illustrates the power of the Women's purse in purchasing decisions.



The Power of the Purse (Goldman Sachs) Women are more likely to buy

- **Food**, especially higher-quality and protein-intensive products
- **Healthcare**, including pharmaceuticals, preventive vaccinations for children, hospital care and general health services
- **Financial products**, for savings and investment vehicles held outside the household
- **Education**, for children and women themselves
- **Childcare**, enabling women to work outside the household and allowing girls to go to school instead of caring for younger siblings
- **Consumer durables**, such as dishwashers, washing machines and apparel

The report concludes that as female labour participation rates rise, countries can reap the benefit of a “double dividend” as women are more likely than men to use their earnings and increased bargaining power to buy goods and services that improve family welfare. This has the potential to create a virtuous cycle, as women’s spending supports the development of human capital, which in turn will fuel economic growth in the years’ ahead. At the same time, economic growth should continue to bolster gender and income equality, which are critical to sustainable development.

There is no doubt that women purchase differently to men. Women’s Coin as an alternative currency for women has great appeal. Women who would normally make a single purchasing decision can now join with other women to collectively make purchasing decisions that will through the very sheer force of numbers, impact on businesses worldwide. Scale and spread of collective purchasing decisions across the world is a powerful business influencer. Women’s values translating into a currency of value. Probably the first crypto currency that has emerged to date, that seeks to support values and purchasing power as a key driver of economic growth and a sustainable world. Women’s Coin then, is not just a Fintech company - it is Fintech with a soul. A humanitarian alternative currency that supports United Nations Women - Sustainable Goal 5 Empowerment of women and girls.



1.2 Women's Purchasing Power is value based

Currently women make every day decisions on household purchasing based on word of mouth, advertising or google search. Women's Coin will help women make better informed decision through access of an on-line platform that will provide also provide information on companies ethical trading, eco-friendly products, transparent supply chains, family friendly work policies etc. The intent is for Women's Coin to create an ethical standard. Data regarding the social value of products and services will be easily accessible through the Women's Coin knowledge platform. On-line and physical trading companies will be encouraged to apply and market their achievement of the standard. Shoppers will be able to easily identify the product/services as being ethical by the Women's Coin logo standard.

Women's Coin currency, therefore will enable women individually and collectively to shape the behaviour of companies to be transparent about the ethical nature of their business, supply chain and employee welfare. A pincher movement that will create pressure from consumers and pressure in the form of standard setting by Women's Coin. The intent is to create a ground-swell movement where companies respond to consumer pressure and seek to acquire the standard, Represented as a "supplier of choice" and registered on the preferred list of suppliers for Women Coin users will in turn increase business

penetration into a hitherto untapped market. Of course, access to the Women's Coin "Supplier of Choice" platform is not just limited to women – it is open to everyone. Many men hold the same values of women in respect to ethical purchasing. Children and young people are tech and planet "savvi". They will influence their parents and peers to "check-out before you buy".



BUYING POWER GLOBAL WOMEN

WHAT IS BUYING POWER?

Buying power is defined as the total personal income that is available, after taxes, for spending on virtually everything including goods and services.¹ It is also called "discretionary income" or "disposable income."

INCREASE IN BUYING POWER²

Globally, women in 2013 controlled:



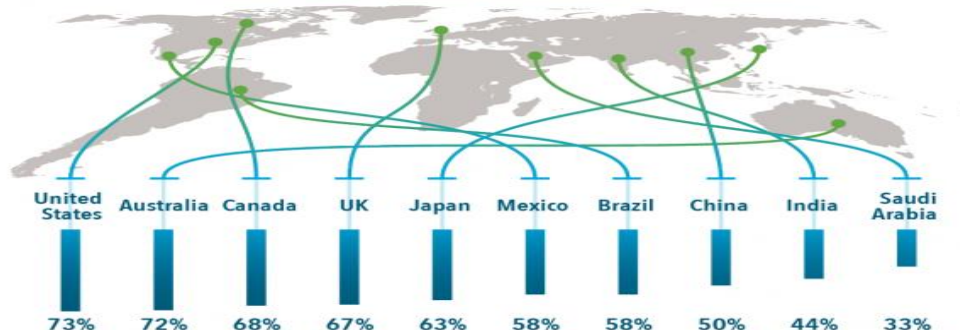
WORKING WOMEN³

By 2018, working women will experience an increase of about:

\$6 trillion
in earned income globally

HOUSEHOLD SPENDING⁴

PERCENTAGE OF HOUSEHOLD CONSUMPTION CONTROLLED OR INFLUENCED BY WOMEN



Strategic businesses stay competitive by understanding their consumer base, which is composed of women with increased earning and buying power.

NOTE

The primary drivers of the global increase of women's income and spending include: more women around the world are getting educated, more women are entering and staying in the workforce, increased wages are starting to close the gender wage gap, and women entrepreneurs are starting more small businesses.⁵

SOURCES

1. Jeffrey M. Humphreys, *The Multicultural Economy 2013* (Selig Center for Economic Growth, Terry College of Business, University of Georgia, 2013).
2. The Boston Consulting Group (BCG), "Women Want More: Updated Findings on the World's Largest, Fastest-Growing Market," Webinar Presentation, September 2013.
3. The Boston Consulting Group (BCG), "Women Want More: Updated Findings on the World's Largest, Fastest-Growing Market," Webinar Presentation, September 2013.
4. Michael J. Silverstein, Kate Sayre, and John Butman, *Women Want More: How to Capture Your Share of the World's Largest, Fastest-Growing Market* (New York: HarperBusiness, 2009).
5. The Boston Consulting Group (BCG), "Women Want More: Updated Findings on the World's Largest, Fastest-Growing Market," Webinar Presentation, September 2013.

1.3 Women's purchasing power is big business

If investors and suppliers are not persuaded by the importance of Women's Coin as a value led cryptocurrency – then consideration should be given to the strategic importance of businesses staying competitive by understanding their consumer base. Catalyst C illustration on global buying power of women – indicated that in 2013 women controlled 64% of household spending and \$29 trillion of consumer spending. This figure is projected to rise to \$40 trillion by 2018. Working women will experience an increase of about \$6 trillion in earned income globally by 2018. Know your consumer base is the message

Women's Coin cryptocurrency knows its consumer and is well placed to engage and harness women's buying power. Not only household spend but discretionary spend that the increase in working women's wages and pay parity will bring to women's purchasing power.

1.4 G20 Market

Women's Coin strategic intent to enter the G20 market - focusing on women entrepreneurs and women-led SME's.

Women-owned SME's face considerable barriers - access to finance is typically identified as the most critical constraint to business growth. Goldman Sachs report "Giving credit where it is due" (How closing the credit gap for women-owned SME's can drive global growth) highlights "The International Finance Corporation estimates that there are more than 40 million formal SME's globally with approximately two thirds in the developing world. This translates into approximately 12 million women-owned SME's worldwide of which approximately 7 million are in developing regions. IFC reported as many as 70% of women-owned SME's in the formal sector are unserved or under-served by financial institutions. A financial gap of around \$285 billion. Results suggest that closing the credit gap over the next few years could boost real income per capita growth rates in G20 countries by around 85bp and incomes per capita could be on average 12% higher by 2030". IFC categorise formal enterprises – as those that are registered with Government and tax authorities – whilst informal SME's are those that are not. It is estimated that globally there are 340 million informal enterprises. Goldman Sachs commented "Against a backdrop of a weaker growth trajectory in emerging markets, the substantial growth premium that can result from investing in women-led SMEs should matter deeply to policy-makers, corporates and asset owners around the world"

Women's Coin mission to support women-only SME's makes fiscal sense. Offering women-led SME's (formal and informal) "Women's Coin" as the currency of choice creates a women friendly coin offering. However, the intent extends further - with the creation of a Women's Coin credit agency brokering investment - either through women coin investors, funds raised from ICO or already established credit agencies.

For women in developing countries (G20) who are not in the financial system or do not have access to a bank account - Women's Coin, will offer:

- Digital identity passport (non-Government picture ID)
- Verifiable through digital signatures
- Attested by investors

Investment and credit assured through real-time smart contracts. Smart contracts using (Ethereum) blockchain delivers transparency of the payment process, on track measurement of delivery outcomes and cyber-resilient closed loop payment process, managing payments, transfer, remittance, and investment repayment. The process provides total security for investors and credit agencies.

1.5 Integrated Coin and Education offering

Enabling access to finance and credit investment is critical but there is also a need to provide women-led SME's with business education. Business planning, management, accounting, team building and critical thinking are all required to build a new generation of female SME leaders. Women's Coin subscribers will be able to access the Business Knowledge area of the learning platform. However, Women's Coin will create a network of "Business Angels" who will guide and mentor SME Women leaders through their business journey

Women's Coin crypto-currency, knowledge economy, education and learning are interlinked in the conceptual design.

Previously we have described how a "knowledge platform" will drive consumer behaviour towards better informed purchasing decisions.

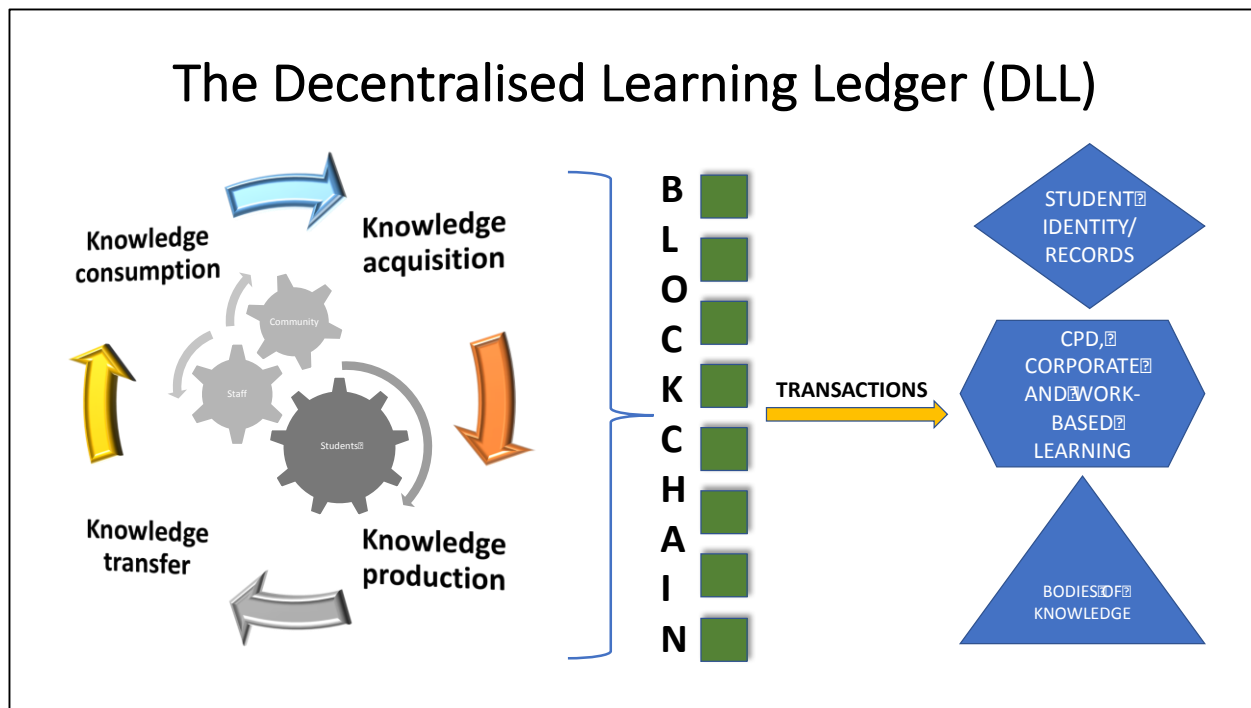
The knowledge platform will also motivate businesses to be an "accredited supplier of choice" - drives the behaviour of companies towards ethical trading. A new "Knowledge economy" therefore sits at

the heart of Women's Coin cryptocurrency offering.

Women's Coin is not content to offer just a "Knowledge platform" or SME support service it has ambition to become the first **Blockchain Business School (BBS)**

How cool is that!

BBS (Blockchain Business School) will create a new paradigm of learning. **BBS** will offer women's coin subscribers an individual DLL (decentralised learning ledger) if you like a "a global passport of learning". Utilising the same blockchain technology as the Digital identity passport - **BBS** DLL will provide learning passport that authenticates formal and informal learning.



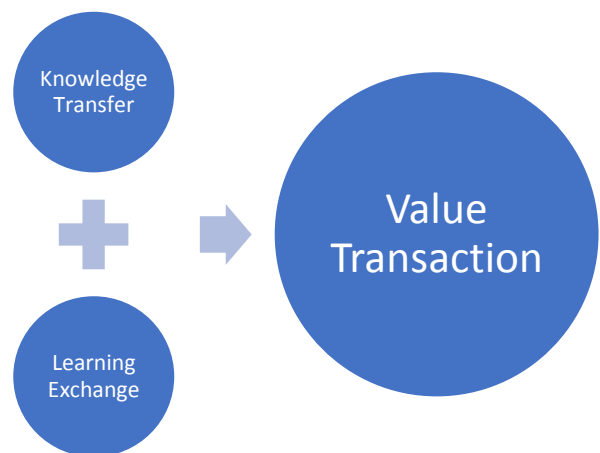
10 ways Blockchain could be used in the BBS (<https://oeb-insights.com/10-ways-blockchain-could-be-used-in-education/>), provides a more comprehensive list of ways in which blockchain can be used for education. They are:

1. Single institution for authentication of certificates
2. Groups of institutions for shared repositories of certification and achievement, as in the example of some universities have grouped together in the US already

3. National blockchain database of all certificates
4. Global assessment (Sony Global Education)
5. Blockchain and badges – open badges to evidence credentials and safe storage
6. Blockchain and MOOCs – more reliable certification of MOOCs
7. Continuing Professional Development – currently CPD, and other forms of formal and informal work-based learning are diverse, and poorly tracked
8. Corporate learning
9. Apprenticeship
10. Bodies of knowledge

Extrinsic/Intrinsic Integrated Learning Blockchain model

	HARD	SOFT
Knowledge Transfer	Extrinsic	Intrinsic
Learning Exchange	Formal	Informal and Non-Formal
VALUE TRANSACTION	TANGIBLE	INTANGIBLE



BBS will provide access to on-line education, training and skill development working in partnership with other Universities and training organisations to deliver on-line provision. **BBS** will embrace emergent technologies such as virtual reality, wearable aids, drones, robotics, artificial intelligence to prepare learners for a blockchain world that we have not yet imagined.



BBS Global certification through a verified DLL, will provide authenticated Education certification for women and girls. Particularly important for those who cannot afford academic fees, or may not have access or opportunity to education in their country or culture.

UN Women have identified Education as a key driver in delivery of Sustainable goal 5 - Empowerment for Women and girls. Whilst the Goldman Sachs report also indicate that education and training for women and girls will support economic growth.

BBS phase 2 implementation will offer a spur coin-offering “EduCoin” which will be open to all regardless of gender, diversity, sexuality, race, faith or culture. A true democratisation of education and learning

Women’s coin as a crypto-currency of value seeks to re-invest in coin subscribers proving a virtuous circle of investment and re-investment

Women’s Coin will become an exemplar in the world of alternative currencies.

2. Technology

2.1 Innovation

Technological innovation is relentlessly changing the way we work and act and will do so faster in years to come. Progressive automation, the use and application of Artificial Intelligence, robotics, the Internet of Things (IoT), and much more are already impacting our daily lives. Located within major economic and societal changes, such technologies demand new ways of relating to the reality we know, and to a virtual, augmented and progressively more global and relational hyper-reality we are constantly co-constructing and re-constructing through myriads of actions. We are experiencing the constant, challenging but also potentially fruitful shift towards a 4th industrial revolution fuelled by Blockchain.

2.2 Blockchain

What is Blockchain? “The easiest way to understand it”, says Tim Hulse author of the Blockchain effect in Business Life “is to see it as a giant, open ledger that allows things of value to be stored or transferred between individuals anonymously and with total trust. Because the ledger isn’t stored in

one single place but is shared across a huge network of personal computers, it's records are also almost immune to hacking"

"It's something that could disrupt the world in a very fundamental way"

Alex Tapscott – author 'Blockchain Revolution'

The first Blockchain was devised in 2008 by "Satoshi Nakamoto" (pseudonym) which allowed the creation of bitcoin. The world's first crypto-currency. In the years that followed blockchain and bitcoin were very much synonymous. The potential for blockchain technology focused mainly in the financial sector (Fintech) – with the potential to disrupt traditional banking systems by eliminating the middle man of the banking system.

Tapscott's view was that in 2014/5 there was a tipping point when a lot of financial services companies woke up to the potential threat and then the potential opportunity of blockchain technology. A report early this year, 2017, by Accenture and McLagan explored the potential for blockchain technology for 8 out of 10 of the world's biggest investment banks. The report concluded that the banks could reduce infrastructure costs by 30 % - with an annual saving between £6bn-£9bn. In April 2017 Bank of England Governor, Mark Carney, made similar comments saying "New technologies could transform wholesale payments, clearing and settlement – in particular the distributed ledger technology (ie blockchain) could yield significant gains in the accuracy, efficiency and security of such processes – saving tens of billions of pounds of bank capital and significantly improving the resilience of the system"

2.3 Ethereum Blockchain Evolution

In 2015 came the birth of "Ethereum" blockchain conceived by Vitalik Buterin (age 23). Ethereum a global peer to peer network of thousands of computers (known as nodes) is essentially a platform that enables anyone, anywhere to move, store and manage anything of value. Buterin's concept was that the new Blockchain would cut out the middleman not just in finance, but in any business.

Alex Tapscott, author of Blockchain Revolution commented "The game changer in the Ethereum blockchain is the introduction of so-called "smart contracts" These are essentially self-operating computer programmes that mimic logic of traditional contract, but with guaranteed execution and enforcement of payments. It means anything of value can be easily exchanged with absolute trust. The implications are immense because essentially any centralised service can be decentralised"

Smart contracts have in essence, built on Blockchain 1.0: 2.0: 3.0 and created integrated offering providing absolute surety for the investor and purchasers. Hurst in his Business Life article says the implications are immense. Artisans can control the sale of their work, people wanting to hire out their home or hire a car can do directly – instead of going through an intermediary. Individuals can buy or

sell excess solar power. The list is long. Many see Ethereum as the beginning of a new decentralised internet.

For 30 years we have had internet of information – ow we have the internet of value

Alex Tapscott – author ‘Blockchain Revolution’

2.4 The Internet of Things and Question of values

Although blockchain is envisaged by its proponents as a paradigmatic shift, it is one of the many major shifts presently occurring as part of the onset and development of a fully-fledged ‘knowledge economy’. A brief introduction to IoT is needed to pave the way for the key drivers in users’ participation and engagement with blockchain. Central to the discussion here is the changing notion of value and a redefinition of currency as not just a monetary exchange, but as a means for value generation.

The IoT is the age of platforms, or the evolution of the Internet to providing users not only with a service, but with an experience they co-create. Based on the emergent field of ‘behaviour economics’, the IoT is an ‘ecosystem of everything being connected’ (Manu², 2015: 4) and in which the traditional value chain of the industrial model of production is remodelled and transformed.

- *Spiritual* (beliefs, values)
- *Mental* (attention, inspiration)
- *Emotional* (love, hate, likes and dislikes)
- *Power* (teamwork, empowerment)
- *Passion* (desires, wants, goals, aspirations)
- *Safety and well-being*

Values – not gender specific - which may also influence purchasing decisions

3. Implementation

This whitepaper is being issued for discussion, amendment, improvement but mainly implementation. Whilst thought pieces are welcome, the reality is blockchain is full of noisy rhetoric with few proven

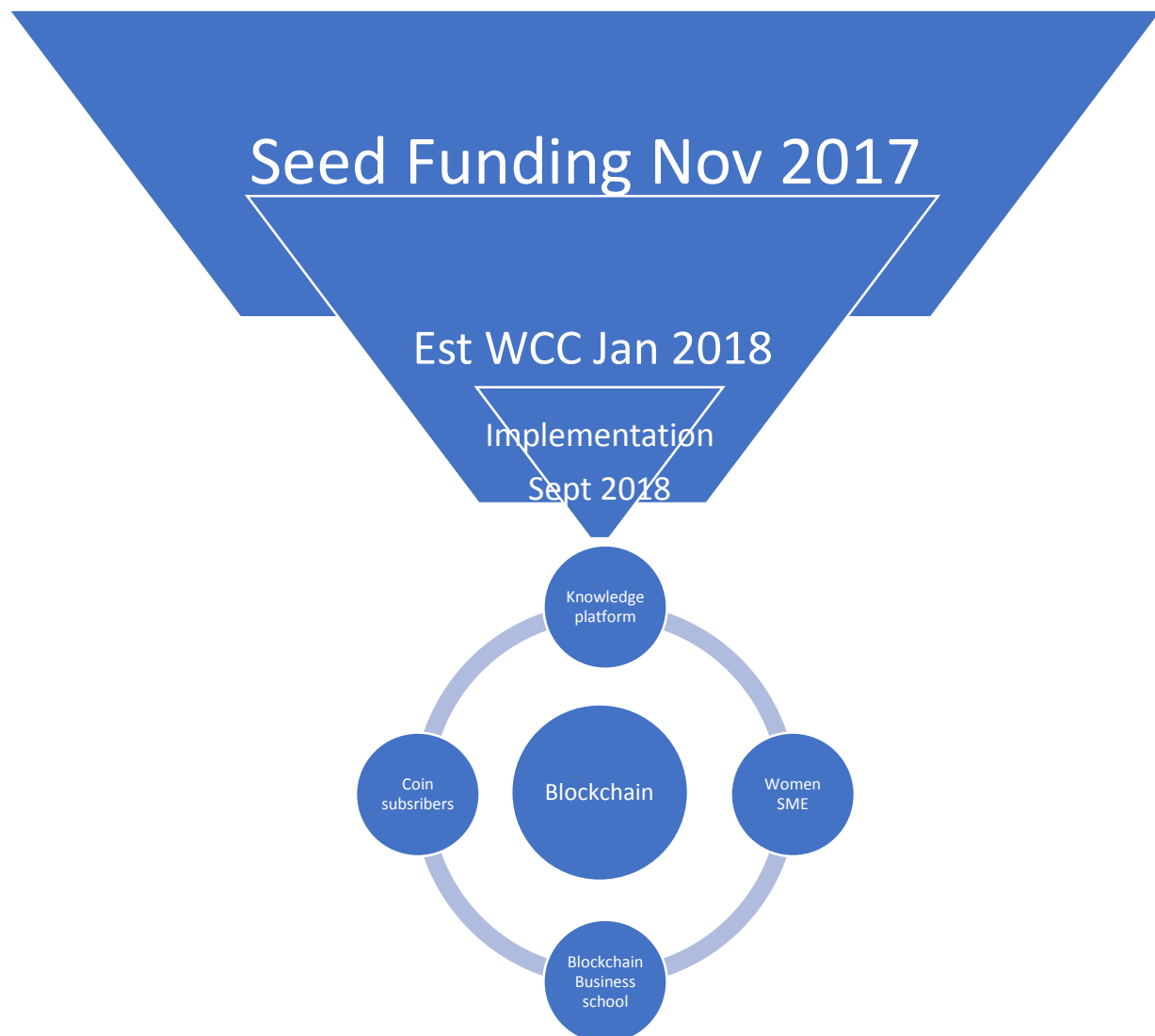
² Manu, A. (2015) *Value Creation and the Internet of Things: How the Behaviour Economy will shape the 4th Industrial Revolution*. Farnham, Surrey: Gower Publishing Ltd

working applications. If indeed blockchain is the 3rd or 4th industrial revolution, then we are duty bound to ensure Women's Coin crypto-currency embeds the latest technology to ensure a transparent and secure currency provision.

Of equal importance is the positioning of the "Coin" as a knowledge economy providing access for coin subscribers to knowledge, learning and education. A virtuous circle of investment and reinvestment And for business investors an opportunity to enter hitherto uncharted markets and growth in a world Of uncertain markets and instability

How is it possible to construct a digital currency with Women's Values? For this we advise you to read the preceding whitepapers 1.0 to 7.0 which have development and implemented since 2011.

Women's Coin offers stability and growth



4 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) which focuses on Movement of Value. CCEG has received over 100 commissions, shown at www.socialearningsratio.com and operates 10+ SaaS platforms through the trading arm Seratio Limited (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, 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) and the newly acquired Efficiency Exchange (www.efficiencyexchange.ac.uk). CCEG conducted a successful Initial Coin Offering (ICO) in September-October 2017 at www.seratio-coins.world

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)
- 8.0 Women's Coin (November 2018)

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