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IMPACT ASSESSMENT OF MONETARY INNOVATION: SUSTAINABILITY WITH EXISTING FRAMEWORKS AND INTEGRAL APPROACH

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ABSTRACT

Implementation of monetary innovation for social innovation network development may be appropriate as a reliable exchange and an incentive system for community value co-creation between stakeholders and sustainable regional development. Nevertheless, some questions remain: (1) What context and objective favour the implementation of monetary innovation? (2) How to enhance and evaluate the impacts of such innovations? To contribute to these research questions, a synthesis of 4 reference currency evaluation studies and 3 assessment frameworks standards, such as Sustainable Development Goals, Impact Reporting and Investment Standards and Global Reporting Initiative, will allow us to not only improve a previous impact assessment method of 71 indicators, by integrating an integral approach categorization, but also to qualitatively assess a recently launched currency, the Léman case study, as a first impetus with 34 indicators. Beyond policy intervention, networks of individuals and organisations may integrate an impact assessment method with an integral approach and continuous improvement process, to reach economic, social, environmental, governance and cultural impacts to evaluate the interest of supporting such initiatives. Further research is needed to develop this impact assessment framework, especially a bottom-up methodology.

KEYWORDS

Sustainable development, impact assessment, continuous improvement, integral approach.

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1. INTRODUCTION

This research paper deals with an important topic on the social and complementary currency (SCC) literature: how to assess monetary innovation and what are their impact in terms of sustainable development? Our proposition is to synthetize existing assessment frameworks to set up a new methodology of impact evaluation. To adapt the existing impact assessment method, presented in the previous publication Place et al., 2015, to the social currencies holistic movement, we will integrate an integral approach and development, finance and management impact assessment standards in addition with currency evaluation reference studies.

The purpose is to assess the Léman case study, as a first impetus, in terms of economic, social, environmental, governance and cultural impacts in order to evaluate if this initiative matches with sustainable development purposes such as local production, responsible consumption, social cohesion, open governance, plurality of socioeconomic actors, and common goods management. Further research with other initiatives is needed to build a bottom-up methodology to improve this impact assessment methodology proposition.

(1) What context and objective favour the implementation of monetary innovation? To answer this first question, we will redesign an impact assessment method based on a synthesis of existing assessment frameworks and an integral approach. (2) How to enhance and evaluate the impacts of such innovations? To answer this second question, we will evaluate a recently launched currency thanks to this new impact assessment method.

2. PURPOSE OF IMPACT EVALUATION

For the development of social and solidarity economy (SSE), a monitoring and evaluation framework (M&E) helps stakeholders to develop a shared understanding of what they are trying to accomplish though a Theory of Change, or Logic Model, such as inputs, activities, outputs, outcomes, impact. Indeed, a Theory of Change methodology results in a flow-chart diagram that illustrates what outcomes have been expected or achieved by an intervention whereas a Logic Model analyzes which outputs of a project's program will lead to some outcomes of an organization's mission (Place et al., 2015). Programs can thus respond to the stakeholders needs and measure the performance, or planet and society advantage. A good impact analysis is essential for financing institution to trust the socioenvironmental impact returned on their investment. Indeed, impact assessment and impact reports are necessary to receive financing, especially through impact philanthropy and through donation fundraising (Anderson, 2005; UNPD, 2009; The World Bank, 2009; Bindewald et al., 2015). Those donations often imply a counter-donation of qualitative and quantitative information about the impact of the project. Indeed, a study in 2008, based on data from 165 systems in 28 countries, found 74% of social and complementary currency being dependent on external financing: only 9% achieve it thanks to internal service taxes and 65% rely on voluntary institutional or individual financing (Demeulenaer, 2008).

Evaluation standards in impact assessment are not only necessary for stakeholder legitimacy and fundraising support at an external level but also for project management and tool design at an internal level (NEF et al., 2014). Impact assessment is not only the core business of innovation in sustainable finance but also the fundamental research of social and monetary innovation (Lietaer et al., 2012). For example, beyond alternative energy and carbon emission efficiency, eco-friendly behavior is a behavior which reduce the ecological footprint or environmental impact. Microcredit and digital cryptocurrency are nowadays a worldwide issue, such as mobile payment, universal dividend, endogenous finance, social and solidarity finance, prosperity without growth, and steady state economy. Nevertheless, these successful social technologies have a lack of sustainable impacts fulfillment. To go beyond this limit, the implementation of monetary innovation in a social innovation network aims to improve economic, social, environmental, governance and cultural impacts between producers and consumers. Monitoring and evaluation of these successful innovations is essential. Consequently, the improvement of currency design and impact assessment is needed for theses sustainable incentive systems. Finally, the perceived value proposition in the eye of their users are linked with this impact improvement (New Economics Foundation et al., 2015).

Monetary innovation occurs in developed region with economic stability and financial health like the Léman, Sol-Violette and WIR Bank projects in Europe; in developing region to keep locally the wealth circulation, by increasing the local Gross Domestic Product (GDP) provided by microcredit, a financial inclusion system, like Banco Palmas, C3U and UDIS in Latin America; or to incite eco-friendly behaviour and resource consumption reduction like the Nu-Spaarpas, EcoElce and Eco-Pesa. This innovation in sustainable finance is based on currency design and impact assessment of incentive systems to increase sustainable production and consumption, strengthen community empowerment, and activate value co-creation between stakeholders in a network of organizations such as transport, tourism, property international sectors.

3. SYNTHESIS OF REFERENCE ASSESSMENT FRAMEWORKS

Concerning the field of social and complementary currencies, among a global review of 406 papers, listed in the bibliography of community currency research called CC-Literature, and 105 papers, published from 1997 to May 2013 in the 17 volumes and 2 special issues of the International Journal of Community Currency, respectively 76 and 13 papers were dealing with pertinent impact analysis, which relatively means 18.7% and 12.4% (Bindewald et al., 2013). Among these various empiric analyses, which evaluate the positive, neutral or negative impact of social and complementary currencies for sustainable development with a balanced repartition and conclusion, 3 reference studies on evaluation research, all based on international literature review, should be analysed in detail (Dittmer, 2013; Seyfang et al., 2013; Michel et al., 2015). All of these studies encourage the standardisation of impact assessment methods to strengthen the legitimacy of social and complementary currency in achieving sustainability for stakeholders (Place et al., 2013a):

Impact link	Study reference	Data (period, region, type)	Used model (data sources)
Positive (impacts): High social sustainability, limited economic benefits, few environmental outcomes	A - Michel et al., 2015	1993-2013 World: Service Credits Mutual Exchange Local Currencies Barter Markets	From 1'175 to 48 studies Systematic literature review: CC-Literature CC-Library Reference searching
Neutral (objectives): Mainly economic and social goals, few pro-environmental objectives	B - Seyfang et al., 2013	1996-2011 World: Service Credits Mutual Exchange Local Currencies Barter Markets	From 3'418 projects Systematic literature review: Empirical studies Literature review Practitioner interviews Advisory panel
Negative (monetary reform): Limited by tax integration, business model and changing policy agenda	C - Dittmer, 2013	1996-2013 World: LETS-Local Exchange Trading System Time Banks HOURS Convertible Local Currencies	From 126 studies Academic literature review excluding: Barter Markets 4th Generation Scheme

Table 1: analysis of social and complementary currency evaluation research

Nevertheless, even if some frameworks exist in this field concerning its typology and categorization, there is no general framework yet concerning its impact assessment, although a currency assessment framework proposition of a matrix of performance indicators, has been made by D - Instituto Palmas and Núcleo de Economia Solidária da Universidade de São Paulo in 2013, which analyse, through a field survey, the scope of a specific social and complementary currency type called Palmas in the geographical region of Fortaleza in Brazil from June 2011 to July 2012 (Instituto Palmas et al., 2013). On the contrary to the fields of sustainable development, finance and management, with some compendium of 150 assessment methods of social impact, 35 measurement approaches in sustainable finance, 25 indexes of sustainable development of nations, and 78 social responsibility management tools (IRIS, 2015; Place, 2012; SVTG, 2008; Foundation Center, 2012; Louette, 2008; Louette, 2009). According to this non-exhaustive research on main existing and reference assessment frameworks, or impact measurement and reporting

initiatives, the ones used for this synthesis are chosen according to their field (sustainable development, finance, management), logic model (activity, output, outcome), degree of consensus and standardization (number of supporting countries or institutions), recentness (date of release), and integration of recommendations and standards (from other reference studies) (SDG, 2015a; SDG, 2015b; IRIS, 2015; IRIS, 2011; EUROSIF, 2014; GRI, 2013; AAAA, 2015; UNIATF, 2015; Royal Government of Bhutan, 2012; BGDP, 2007; SIGMA, 2010, Jackson, 2009; ISO, 2014a, ISO, 2014b):

Sustainable field	Type of assessment framework	Consensus	Recentness	Integration
Development (sustainable development and wellbeing)	1 - Sustainable Development Goals (SDG) – Outcome	193 countries	August 2015	United Nations High Level Meeting on Happiness and Well-Being (HWB), Beyond GDP: measuring progress, true wealth, and the well-being of nations (BGDP), Addis Ababa Action agenda of the Third International Conference on Finance for Development (AAAA).
Finance (sustainable finance and impact investing)	2 - Impact Reporting and Investment Standards (IRIS) – Output	2'394 organizations	March 2014	Global Reporting Initiative (GRI), International Financial Reporting Standards (IFRS), Social Return on Investment (SROI).
Management (sustainable management and corporate social responsibility)	3 - Global Reporting Initiative (GRI) – Activity	7'500 organizations	May 2013	ISO 26000 guidance on social responsibility, Organisation for Economic Co-operation and Development guidelines for multinational corporations (OECD), International Labour Organization Tripartite Declaration (ILO).

Table 2: election of sustainable assessment frameworks standards

By choosing and synthetizing some recognized international standards from sustainable fields linked with social and complementary currency, such as sustainable development (outcome, objectives), sustainable finance (output, sectors) and sustainable management (activity, stakeholders), and by comparing them with reference studies on social and complementary currency evaluation, we can provide a common, comprehensive and incremental approach that would lead to a standardization of impact evaluation of social and complementary currency for value co-creation between stakeholders. Indeed, social and complementary currencies aim to develop a territory, to improve the financing of organizations and to incite a better management for a sustainable vision, that's why integrating these impact assessment frameworks dealing with development, finance and management is pertinent. Furthermore, combining an integral approach categorization with both sustainable assessment frameworks standards and on social and complementary currency evaluation research reference studies, give us the opportunity to design an impact assessment method based on the synthesis of the various dimensions and indicators of the assessment frameworks presented above (Place, 2015). This Impact Assessment Matrix is a prototype and further research, especially by cooperating with practitioners in an action research bottom-up approach, will help to integrate the various assessment frameworks and evaluation research to design more appropriate and relevant indicators that would lead to a standardization of impact evaluation of social and complementary currency, thanks to a continuous improvement process. In comparison with the previous previous publication Place et al., 2015, we added not only the link with sustainability assessment frameworks standards and the social and complementary currency evaluation research references studies presented above but also the integral approach categorization with its four quadrants of an integral vision, or all quadrants all levels, presented below (Place, 2015; Wilber, 2014; Arnsperger, 2010):

Non-dual	Interior Views	Exterior Mechanism
Individual Individuations	I Subjective Intentional and conscious (aesthetic, expressive) Existential reflection (stages of consciousness, cognitive and self-identity)	IT Objective Behavioral and organism (empirical, positivism) Neuro-behavioral science (stages of the psychobody, organic and energetic)
Collective Institutions	WE Inter-subjective Cultural and world vision (ethics, norms) Critical reflection (stages of worldview)	ITS Inter-objective Social and environment (cybernetics, systems) Complexity economics (stages of system logic, sociopolitical and economic)

Table 3: all quadrants all levels interconnections of full-spectrum economics

Here are the various criteria of this following Impact Assessment Matrix prototype (Place, 2015):

- Integral approach: subjective or existential reflection (leadership and well-being), objective or neuro behavioural science (hardware, software or material), inter-subjective or critical reflection (ethics and education), inter-objective or complexity economics (system design).
- Dimension: linked with scientific research domains in different background such as ecology (environment), sociology (social), economics (economy), politics (governance), anthropology, philosophy and psychology (culture) to insure a cross disciplinary approach.
- Level: meta, macro, meso or micro.
- Vision goal: as presented in table 2: goals and objectives for complementary currency systems in the previous publication Place et al., 2015.
- Guideline principle: main topic, issue, subject which might be integrated, followed and respected.
- Evaluation objective: as presented in table 2: goals and objectives for complementary currency systems in the previous publication Place et al., 2015.
- Typology and category (T/C): bilateral barter (B), multilateral barter (M), mutual credit (U), issued currency (C), hybrid exchange system (I) or relating to any of these types (A).
- Logic model hierarchy (LM): measuring activities (A), outputs (P) or outcomes (C).
- Progress measurement indicators of different kinds (71): eco-socio-environmental.
- Monitoring and evaluation methodology (M&E): data collection and analysis with quantitative or qualitative research methods.
- Cost (C): estimation of the time, money and human resources needed for data collection: low (1), medium (2), high (3).
- Frequency of the data collection and analysis (F): daily (D), weekly (W), monthly (M), yearly (Y).
- Link with standards and references (L): linked with sustainability assessment frameworks standards (1 - Sustainable Development Goals; 2 - Impact Reporting and Investment Standards; 3 - Global Reporting Initiative) and social and complementary currency evaluation research reference studies (A - Michel et al., 2014; B - Seyfang et al., 2013; C - Dittmer, 2013; D - Instituto Palmas et al., 2013).

4. IMPACT ASSESSMENT METHOD ON LÉMAN CURRENCY

After a first impetus in 2010, APRÈS-GE, a social innovation network of 270 organisations called the Chamber of social and solidarity economy in Geneva, decided, by a unanimous General Assembly vote, the 29th of May 2013, to cooperate with the group Greater Geneva Currency, or Monnaie Grand Genève in French. This project began the 27th of September 2013 in the cross-border region of the Greater Geneva through collective, voluntary, open and participatory co-creation. In 2013 and 2014, as a CCIA-Community Currency in Action observer, a European Regional Development Fund project, and expert on some master thesis, results of some studies on the Greater Geneva Currency, draft project of the Léman currency, have been released. And the 18th of September 2015, during the Alternatiba Léman, a cross-border festival of local initiatives for climate and well-being, the Léman: Lemanic local currency, or Le Léman: monnaie local lémanique in French, has been launched in the Franco-Swiss conurbation of the Greater Geneva. Later, the Léman currency has integrated another local currency from the Annemasse urban conglomeration, called Eco-Annemasse and launched the 13th of September 2012 (Monnaie Léman, 2015).

Study	Sample	Results	Details
Nginamau, 2013	14 stakeholders	Favorable opinion for its implementation	Perceived benefits outweigh perceived costs
			Accelerator of wealth & innovation with high added value
Chervaz, 2014	15 potential users	Value proposition not fully in line with expressed needs and concept perception	Correlation with local exchange and consumption incentive
			Divergence with participatory governance and social and solidarity economy objective
MGG, 2014 Calderon, 2015	13 organizations	High potential of creating new transaction flows in APRES-GE	1/3 of their economic relation are made with partners sharing the social and solidarity values
			1/3 of the current transactions could be made with partners sharing the social and solidarity economy values

Table 5: Léman currency studies and results, Source: Place, 2015

These studies show that this currency has a high potential for both producers and stakeholders, as it can create new transaction flows in the existing network of social innovation organizations and it has high added value and perceived benefits for the concerned participants. Nevertheless, the governance and economics objectives of the currency do not match with the expressed needs of the potential users who mainly focus on local exchange and consumption incentive advantages of such system. Based on the impact assessment method presented above, a qualitative assessment of the impact of the Léman currency has been made, based on the observation of the case study from 2013 to 2014 as an expert and then director of two master thesis on Léman currency, after being a practitioner and action researcher from 2010 to 2012 (Place, 2015). Indeed, based on 34 of the 71 indicators, or 47.9%, of the Impact Assessment Matrix prototype presented above, we will assess the impact of the Léman with 3 more criteria, through a qualitative analysis without using the progress indicators measurement and the monitoring and evaluation methodology of the Impact Assessment Matrix:

- Scoring (S): with even number from 1 (very low), 2 (low) to 3 (high), 4 (very high) in order to represent a multifaceted matrix in a radar graphic, see below.
- Justification: comments, remarks, critics to justify the scoring (N/A for not applicable or not available).
- Recommendation: solution proposition to implement in a continuous improvement process.

In term of sustainable dimensions, the governance and social dimensions are higher than the culture and economic ones, which are higher than the environment one. As the Léman mainly promote participatory governance and social and solidarity economy objective during its pre-launch, and as it's difficult to assess the local exchange and consumption incentive results because this currency just released, this impact assessment method has also been coherent.

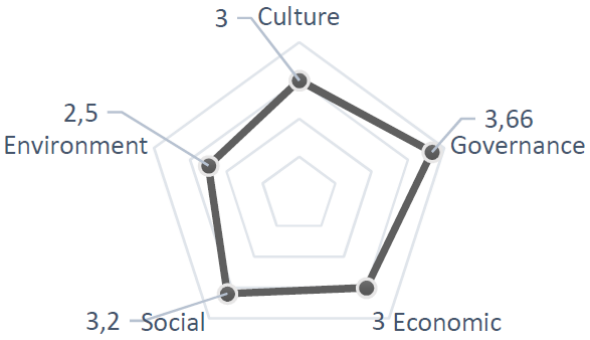

Fig. 1: Impact assessment of Léman launch on September 2015, Source: Place, 2015

5. CONCLUSION

According to most of the social and complementary currency research studies, and especially 2 recent systematic literature reviews, we need to develop a monitoring and evaluation framework to assess their impact in terms of sustainable development. (1) What context and objective favour the implementation of monetary innovation? Even if further research is needed to clearly identify these favorable context and objective to implement monetary innovation, in comparison with our previous publication Place et al., 2015, we selected and synthetized 3 reference assessment frameworks to design an impact assessment method: Sustainable Development Goals, Impact Reporting and Investment Standards, and Global Reporting Initiative dealing respectively with outcomes, outputs and activity of a Logic Model, as monetary innovation is at the junction of territorial development, organization financing and sustainable management. We also linked this impact assessment matrix with 4 reference studies on impact evaluation of monetary innovation. And we added an integral approach categorization for the economic, social, environmental, governance and cultural impacts dimensions (2) How to enhance and evaluate the impacts of such innovations? In order to build a bottom-up methodology within a continuous improvement process and in order to evaluate the interest of supporting such initiatives, we decided to start with a first qualitative assessment, through this impact assessment method, a recently launched currency, the Léman, based on 3 recent qualitative studies. This case study shows the relative pertinence of this impact assessment method.

Only one case study has been assessed with its intrinsic limitation due to its recent released. Consequently, more assessments need to be done in order to improve this impact assessment method. Indeed, further research through a global expedition to analyse innovative and traditional initiatives in both developing and developed countries would allow to not only improve this impact assessment method towards a standardization process of monetary innovation assessment framework through a bottom-up methodology with practitioners' cooperation, but also publish an atlas compendium of reference case studies and an implementation guide with key success factors.

Does this research give us a first impetus of an integral assessment method for integral monetary systems? Indeed, the purpose of a monetary innovation system, or resource and behavior management system, is to manage the production, distribution and consumption of goods and services on one side; and incite an integral practice and development of individuals on the other side.

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APPENDIX

Integral approach	Dimension	Level	Vison Goal	Guideline Principle	Evaluation Objective	T/C	L M	Progress Measurement Indicators	M&E Methodology	C	F	L
Subjective Existential reflection	**Culture**	**Macro**	**Inner Outer Sense Harmony**	**Altruism**	Other-Oriented Cooperation & Self-Oriented Competition Equilibrium	A	C	% other-oriented vs self-oriented	System database	2	M	A
	Social	**Meso**	**Needs Satisfaction**	**Well-being**	Increase self-confidence	B M I	C	% agree & strongly agree	Interview	1	Y	B
					Friendship and Trust	B M I	C	% agree & strongly agree	Interview	2	Y	B
					Improve quality of life	B M I	C	% agree & strongly agree	Interview	1	D	2
					Mindfulness and Spirituality	A	P	% agree & strongly agree	Interview	2	D	1
Objective Neuro-behavioral science	**Economic**	**Micro**	**Financial Autonomy Development**	**Risk**	Disaster mitigation	U C I	P	Backup system Frequency	System database	1	Y	D
					Currency Security features	A	P	N° security features	Best practices: 3	3	W	D
					Transaction and Data Safety	A	A	N° failure accident	System database	2	W	D
					Record keeping and statistics	A	A	Backup system Frequency	System database	1	W	D
	Environment	**Meta**	**Transition and Autonomy**	**Relocation**	GHG emission	C I	C	%CO2 & CH4 decrease	Regional database	3	M	12B
		Meso	**Ecological Footprint Reduction**	**Biodiversity**	Reforestation	C I	C	N° tree plantation	Regional database	3	Y	12B
				Eco-Friendly	Behaviour change	C I	C	% agree & strongly agree	Interview	3	W	13AB
					Waste management	C I	C	%recycling increase	Regional database	3	D	12B
					Water management	C I	C	%water consumption decrease	Regional database	2	W	12B
		Micro	**Responsible Consumption Motivation**		Green economy	C I	C	%organic & fair product increase	Regional database	2	D	12B
Inter-subjective Critical reflection	**Culture**	**Meta**	**Societal Acceptance**	**Societal**	Recognition Credibility Legitimacy from (Inter-) Governmental Institution	A	C	N° institutional support	Management database	3	M	C
					Tranverse Cross-Disciplinary Integral Holistic Collective Intteligence	A	C	N° scholar expert specialist involved	Management database	2	M	C
		Meso	**Pluralism Inclusivity Diversity**	**Creativity**	Alternative Flexible Libertarian Measure of Value	A	C	Yes / No	Best practice	1	D	C
					Soft Skills and Hard Skills Design Thinking	A	C	% soft skills vs hard skills	Management database	3	Y	D
	Economic	**Macro**	**Make Exchange Possible**	**Resilience**	Training	A	P	% trained	Interview	3	M	1D
						A	P	N° training hours per year	Management database	2	M	1D
		Meso	**Inclusive Community-Building**	**Viability**	Participation	A	C	N° active members per year	Management database	1	Y	3D
					Friendly user	U C I	C	% agree & strongly agree	Interview	2	Y	3D
					Intelligibility	A	P	% agree & strongly agree	Interview	1	D	3D
					Team Capacity	A	A	N° management team	Management database	3	Y	3D
	Social	**Meta**	**Link Share Reciprocity Solidarity**	**Cooperation**	Exchangeability	A	C	N° compensation systems	System database	2	M	3
					Co-creation	A	P	N° involved in design	Management database	3	M	3
					New skills	A	A	% agree & strongly agree	Interview	3	Y	3
		Macro	**Equity and Justice**	**Engagement**	Involvement	A	C	% agree & strongly agree	Interview	1	D	13
					Inclusion	B M I	C	N° solidarity inclusion	Management database	1	W	13
					Social service dependence	B M I	C	N° social service dependant	Management database	2	Y	13
					Cohesion	B M I	C	N° new relationship	Interview	2	D	13
		Meso	**Needs Satisfaction**	**Diversity**	Education level repartition	A	A	%High & Graduate school	Interview	3	W	3
		Micro	**Cohesion Cooperation Sharing Vector**	**Mission**	Ethic Charter	A	A	Yes / No	Best practice	1	D	3
					Conducts Code	A	A	Yes / No	Best practice	2	W	3
				Education	Enrolment	A	C	N° children enrolled in school	Interview	3	D	23
Inter-objective Complexity economics	**Culture**	**Micro**	**Innovation Confidence Humility**	**Innovation**	Open Questioning Capacity	A	C	N° yearly improvement	Management database	2	Y	23D
	Governance	**Meta**	**Participatory Democracy**	**Democracy**	Collaborative Election Decision Process: Consent Sociocracy Holacracy	A	P	N° stakeholder involved	Interview	2	Y	123D
						A	A	N° administrative person	Management database	1	Y	123D
		Macro	**Citizenship Engagement Recognition**		Effective Stakeholder Involvement Stimulation	A	P	% participation among users	Management database	1	Y	123D
		Meso	**Independent Control**	**Legal**	Independent Quality Control Process	A	P	Certification	External auditing	2	Y	12D
		Micro	**Monetary Creation as a Common Good**		National Legislation	A	P	N° legal text	System database	2	W	12D
				Transparency	Taxation	A	C	%rate (fixed & variable)	External auditing	**1**	W	13D
					Open source system	A	C	Certification	External auditing	**1**	M	13D

					Open banking	A	C	Certification	External auditing	**2**	M	13D
					Free Code and Legality	A	C	% free code	External auditing	**3**	W	13D
	Economic	**Meta**	**Crisis Resiliency**	**Resilience**	Market diversity	A	C	N° goods & services category	Classification standards	3	M	1
						A	P	N° & % users & producers	System database	3	D	1C
		Macro	**Make Exchange Possible**		Tipping Point Network Scale	U C I	C	N° users & N° business	Minimum Best practices: 500 & 100	2	Y	1C
					Interoperability	C I	A	N° systems users	System database	3	M	1C
		Micro	**Financial Autonomy Development**	**Finance**	Investment standards	U C I	P	Certification	External auditing	2	D	2D
					Loan Standards	U C I	P	Certification	External auditing	3	D	2D
				Accountancy	Accountancy standards	U C I	P	Certification	External auditing	1	D	12D
					Appropriate Socio-Environmental Accountancy Scheme	U C I	P	Certification	External auditing	2	M	12D
				Management	Monitoring and Evaluation	A	P	N° standards & tools used	Best practice	3	M	2D
				Exchange	Demurrage / Interest	A	C	%rate	Best practice	3	W	23D
					Debt levels	A	C	Minimum and maximum	Best practice	2	D	23D
					Discount rate	A	P	%discount	Best practice	2	W	23D
					Salary bonus	U C I	P	%bonus	Best practice	1	D	23D
					Exchange rates	A	A	%rate	Best practice	2	M	23D
					Backed system	A	A	%backing	Best practice	2	D	23D
	Social	**Micro**	**Cohesion Cooperation Sharing Vector**	**Poverty**	Income increase	B M I	C	%income increase	Interview	2	W	123C
						A	C	N° risen out of acute poverty	Interview	1	W	123BC
					Employment	B M I	C	%employment increase	Interview	2	D	123BC
						A	C	N° new job created	Interview	3	D	123BC
	Environment	**Meta**	**Transition and Autonomy**	**Relocation**	Local growth	U C I	C	%GDP local increase per year	Regional database	2	M	13AB
						U C I	C	N° profitable enterprise support	Interview	1	Y	13AB
						U C I	C	N° new profit & wage generated	Interview	2	Y	13AB
		Macro	**Eco-Localization Relocation**		Local consumption	U C I	C	%products locally produced	System database	2	M	13AB
					Currency exchange	A	P	%salary exchanged in SCC	Interview	1	M	13CB
						A	P	N° of SCC spent & earned	System database	2	Y	13CB

Integral approach	**Dimension**	**Vison Goal**	**Guideline Principle**	**Evaluation Objective**	**Progress Measurement Indicators**	**S**	**Justification**	**Recommendation**
Subjective Existential reflection	**Culture**	**Inner Outer Sense Harmony**	**Altruism**	Other-Oriented Cooperation & Self-Oriented Competition Equilibrium	% other-oriented vs self-oriented	3	Mutual credit system	Maximum and minimum balance account
	Social	**Needs Satisfaction**	**Well-being**	Increase self-confidence	% agree & strongly agree	3	Money appropriation	Monthly barter event
				Friendship and Trust	% agree & strongly agree	4	Feeling of community	Monthly barter event
				Improve quality of life	% agree & strongly agree	2	Sustainable services	Increase service diversity
				Mindfulness and Spirituality	% agree & strongly agree	1	No incentive	Include specific services
Objective Neuro-behavioral science	**Economic**	**Financial Autonomy Development**	**Risk**	Disaster mitigation	Backup system Frequency	-	N/A	
				Currency Security features	N° security features	3	Usual security feature	Communicate on them
				Transaction and Data Safety	N° failure accident	-	N/A	
				Record keeping and statistics	Backup system Frequency	-	N/A	
	Environment	**Transition and Autonomy**	**Relocation**	GHG emission	%CO2 & CH4 decrease	3	Local consumption	Life cycle assessment
		Ecological Footprint Reduction	**Biodiversity**	Reforestation	N° tree plantation	-	N/A	
			Eco-Friendly	Behaviour change	% agree & strongly agree	2	No incentive	Positive valuation
				Waste management	%recycling increase	-	N/A	
				Water management	%water consumption decrease	-	N/A	

		Responsible Consumption Motivation		Green economy	%organic & fair product increase	2	Sustainable consumption	Positive valuation
Inter-subjective Critical reflection	**Culture**	**Societal Acceptance**	**Societal**	Recognition Credibility Legitimacy from (Inter-) Governmental Institution	N° institutional support	4	6 institutional supports	Increase institutional and strategic partnership
				Tranverse Cross-Disciplinary Integral Holistic Collective Intteligence	N° scholar expert specialist involved	-	N/A	
		Pluralism Inclusivity Diversity	**Creativity**	Alternative Flexible Libertarian Measure of Value	Yes / No	1	Parity with euro	Create an hybrid system
				Soft Skills and Hard Skills Design Thinking	% soft skills vs hard skills	-	N/A	
	Economic	**Make Exchange Possible**	**Resilience**	Training	% trained	3	67 individuals	Increase users diversity
					N° training hours per year	-	N/A	
		Inclusive Community-Building	**Viability**	Participation	N° active members per year	3	67 individuals	Increase users diversity
				Friendly user	% agree & strongly agree	4	1, 5, 10, 20 notes	Quinquennial versions
				Intelligibility	% agree & strongly agree	4	Léman guide	English version
				Team Capacity	N° management team	4	2 committee	Election frequency
	Social	**Link Share Reciprocity Solidarity**	**Cooperation**	Exchangeability	N° compensation systems	4	Euro and Swiss Franc	Fixed rate
				Co-creation	N° involved in design	4	4 local designers	Quinquennial versions
				New skills	% agree & strongly agree	-	N/A	
		Equity and Justice	**Engagement**	Involvement	% agree & strongly agree	-	N/A	
				Inclusion	N° solidarity inclusion	3	10 SSE members	Increase service diversity
				Social service dependence	N° social service dependant	3	10 SSE members	Increase service diversity
				Cohesion	N° new relationship	-	N/A	
		Needs Satisfaction	**Diversity**	Education level repartition	%High & Graduate school	-	N/A	
		Cohesion Cooperation Sharing Vector	**Mission**	Ethic Charter	Yes / No	4	Charter of Léman	Specific index
				Conducts Code	Yes / No	4	Guide of Léman	Specific index
			Education	Enrolment	N° children enrolled in school	-	N/A	
Inter-objective Complexity economics	**Culture**	**Innovation Confidence Humility**	**Innovation**	Open Questioning Capacity	N° yearly improvement	4	Participatory governance	Election frequency
	Governance	**Participatory Democracy**	**Democracy**	Collaborative Election Decision Process: Consent Sociocracy Holacracy	N° stakeholder involved	3	67 individuals	Increase users diversity
					N° administrative person	4	2 committee	Election frequency
		Citizenship Engagement Recognition		Effective Stakeholder Involvement Stimulation	% participation among users	-	N/A	
		Independent Control	**Legal**	Independent Quality Control Process	Certification	-	N/A	
		Monetary Creation as a Common Good		National Legislation	N° legal text	4	2 legal text	Specific index
			Transparency	Taxation	%rate (fixed & variable)	-	N/A	
				Open source system	Certification	-	N/A	

				Open banking	Certification	-	N/A	
				Free Code and Legality	% free code	-	N/A	
	Economic	**Crisis Resiliency**	**Resilience**	Market diversity	N° goods & services category	3	10 different services	Increase services diversity
					N° & % users & producers	2	17 shops	Increase services diversity
		Make Exchange Possible		Tipping Point Network Scale	N° users & N° business	1	67 + 10 members	Increase services diversity
				Interoperability	N° systems users	3	Exchange counter	Specific index
		Financial Autonomy Development	**Finance**	Investment standards	Certification	-	N/A	
				Loan Standards	Certification	-	N/A	
			Accountancy	Accountancy standards	Certification	-	N/A	
				Appropriate Socio-Environmental Accountancy Scheme	Certification	-	N/A	
			Management	Monitoring and Evaluation	N° standards & tools used	2	Not specific	Continuous improvement
			Exchange	Demurrage / Interest	%rate	-	N/A	
				Debt levels	Minimum and maximum	-	N/A	
				Discount rate	%discount	-	N/A	
				Salary bonus	%bonus	-	N/A	
				Exchange rates	%rate	3	5% conversion	Specific index
				Backed system	%backing	4	Guarantee fund	Specific index
	Social	**Cohesion Cooperation Sharing Vector**	**Poverty**	Income increase	%income increase	-	N/A	
					N° risen out of acute poverty	-	N/A	
				Employment	%employment increase	-	N/A	
					N° new job created	-	N/A	
	Environment	**Transition and Autonomy**	**Relocation**	Local growth	%GDP local increase per year	-	N/A	
					N° profitable enterprise support	-	N/A	
					N° new profit & wage generated	-	N/A	
		Eco-Localization Relocation		Local consumption	%products locally produced	3	Local network	Discount on local product
				Currency exchange	%salary exchanged in SCC	-	N/A	
					N° of SCC spent & earned	-	N/A	