

Managed by CAKE



Executed by Sensorica

National Open Innovation Collaborative Ecosystem

A Collaborative Community-Based Social Innovation Program for Canada

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Further improvements

Introduce new developments with DAO and compare DAOs with OVN. See comparison document under development.

Executive Summary

Do more with less, a next generation approach to innovation and economic development

The National Open Innovation Collaborative Ecosystem (NOICE) builds upon the unique learning and experience of the Sensorica *Open Value Network* (OVN) and scales out this powerful model of strategic collaboration and agile innovation to enrich Quebec and Canada's capacity for integrative value-creation.

NOICE is a **Fourth Sector** (see section below called Rationale) approach to innovation and social development, and presents a valuable opportunity for the Ministry of Employment and Social Development Canada (ESDC) to build capacity and demonstrate social development leadership, internationally, while advancing its mandate for technological and social innovation.

Our **vision** is to foster a culture of participation within Canadian society, and to generate greater social and economic freedom for our fellow citizens.

Our **mission** is to inter-network and grow a variety of open and collaborative initiatives into a complementary socioeconomic system - a Fourth Sector network, building new connections and capacities across the public, private and the social sector, to effectively navigate the complexities of the post-industrial, knowledge-driven era.

The overarching **objective** of NOICE is to build capacity for open networks and communities involved in social and economic development, which are part of what we call the Fourth Sector, and to provide a safe and secure environment for these organisations to collaborate with industry, academia, the government and the social sector (nonprofits and coops).

The Fourth Sector is becoming an important source of social innovation and it plays an increasingly prominent role in the development of new technologies and in their dissemination. Gaps in services provided by the traditional sectors are now filled with offers from the Fourth Sector, providing citizens with more opportunities. Although the positive impact of these new approaches is well documented, these new types of organisations remain largely unrecognized by governments, their models are poorly understood, and therefore their ability to attract resources is weak. Moreover, these organisations are also poorly interconnected and their relations with traditional organisations are barely starting to emerge. This project will help the Fourth Sector to gain legitimacy and to claim its role in society by demonstrating its socioeconomic impact in Montreal South West, Quebec, and eventually scale these achievements to the national level.

More concretely, we will build a peer-to-peer platform to interconnect open spaces (ex. makerspaces), private companies and academic labs, to provision a full complement of collaborative innovation and social entrepreneurship resources, shared among participating contributors of all kinds. We will provide resource and project management tools, as well as services to facilitate collaborative innovation. NOICE will be the world's first *collaborative social economy cluster*.

The **impact** projected for NOICE can be summarized by the following numbers, extracted from our past activities:

- 80% financial cost reduction for initiating a new social venture, using the collaborative recipe.
- 50% financial cost reduction for social innovation in the traditional private and social sectors.

If money is a barrier to social innovation, we know how to circumvent it.

NOICE will begin with a pilot project: *LaSalle-Émard-Verdun Open Innovation Collaborative Ecosystem* (LEVOICE).

Phase one of LEVOICE has the **objective** to **build engagement** within the local community. We will map the local ecosystem, expose local individuals and organisations to the Fourth Sector, identify needs in terms of resources, activities and services, and build engagement for weaving a stronger Fourth Sector in the region.

Phase two of LEVOICE has the objective to **build capacity**. We will provide resources to local networks and open communities, help them to adopt state of the art practices, and connect them with the organisations from the private, public and social sectors.

Phase three of LEVOICE has the objective to **scale** the model. We will extrapolate the results of the pilot project to the national context, and explore the possibility of expanding this initiative across Canada, to establish NOICE.

Project Rationale

The *Fourth Sector*, new opportunities for social innovation, and social entrepreneurship

“A complex system that works is invariably found to have evolved from a simple system that worked. A complex system designed from scratch never works and cannot be patched up to make it work. You have to start over with a working simple system”

- John Gall, Systemantics: How Systems Really Work and How They Fail, 1975

When it comes to social innovation, social finance and social development, the emergence of a *Fourth Sector* is growing at a very rapid pace alongside the public (government), private (business) and the social sector (also called the third sector, composed of NGOs, non-profit organisations, and coops).

In this Fourth Sector, social issues are tackled by new forms of organisations that have exploited the potential of the interactive web, from the informal Facebook group where single mothers exchange tips and favors to the more structured community timebank, where people leverage their reputation to gain favours and to offer services in exchange of benefits. The Transition Towns movement¹ for local resiliency is another example of a global network using sophisticated tools and methodologies for collaboration.

These network-type organisations allow individuals to help others and to innovate. They are now going through their second phase of evolution with the emergence of peer to peer technologies such as Blockchain and new generations of distributed ledger technology. Some have grown in complexity and scale, thereby becoming formidable socioeconomic agents. For example, the Bitcoin network, if we consider it as a group of human beings rather than merely a network of computers, forms one of the most perplexing examples, as it is a secure exchange service offered at global scale by the crowd to the crowd. Common features among these new organisations are: openness (access to participation available to anyone), transparency (anyone can access all information), and key aspects of horizontal governance (such as consensus, flat, hybrid).

¹ Transition Towns main website <https://transitionnetwork.org/>

The Fourth Sector

This new term doesn't have a widely adopted definition, but those who use it seem to agree that the fourth sector contains elements of the three traditional sectors. Some believe that this hybridization is the result of a new attitude within the post industrial capitalist paradigm, caused by a rearrangement in values and priorities, bridging market-based approaches with public services, using profit for social benefit, leading to the notion of *social entrepreneurship*, which is in fact the application of business practices to social good. Others, including us, believe that the origin of this hybridization is orthogonal to the post industrial capitalist paradigm. The Fourth Sector, as we see it today, is an early stage manifestation of a new socioeconomic order, called peer-to-peer (p2p). This new paradigm is characterized by participatory processes within network-type organizations, based on new relations of production and on new methods of allocation and redistribution. The open source movement is a manifestation of the Fourth Sector when it comes to technological innovation. Online communities for social support and timebanks are manifestations in social development. This is far from business as usual.

Network-type organisations confuse us. They cannot be recognized by their legal structure, because they are not wrapped around a common legal shell, nor do they exhibit traditional management structures. Most proxies that we normally use to recognize an organisation are missing. Still, these networks are very real. We cannot ignore their agency and their positive impact on society when we take into consideration their most recent achievements.

In response to globalization, climate change and interconnected people and information, governments are being called on to think ahead and to create opportunities for citizens to foster innovation, creativity, and social entrepreneurship.

A recent Neilson study² found that collaboration and diversity leads to higher-impact innovations. The *Fall Economic Statement 2018*³ document, published by the *Canadian Ministry of Finance*, recognises the importance of investing in social innovation and social development. It makes reference to the *Inclusive innovation: New ideas and new partnerships for stronger communities (2017)*⁴ document from the *Ministry of Employment and Social Development Canada (ESDC)*. This report by the *Co-Creation Steering Group to guide the development of a Canadian Social Innovation and Social Finance Strategy* began with a Canada-wide public consultation; it mentions Sensorica as a contributor providing constructive insights. Sensorica's recommendations in support of the Fourth Sector come from nearly a decade of experience

² Why collaboration leads to higher-impact innovation <https://bit.ly/2NNaSQx> ; How collaboration drives innovation success <https://bit.ly/2Uk3hvc>

³ Fall Economic Statement 2018 <https://bit.ly/2S5iL4r>

⁴ Inclusive innovation: New ideas and new partnerships for stronger communities (2017) <https://bit.ly/2wL2Pwc>

operating a participatory and open innovation network⁵, formed around a leading-edge open innovation lab located in Montreal, Québec. Our unique perspective ensures valuable new approaches pertinent to the social innovation and social finance challenges facing a rapidly evolving Canadian society.

Let's Do It!

On the 3d of May 2008 over 50,000 people came out of their homes to clean up Estonia, that's 4% out of a population of 1,3 million. This was a vast network of individuals organised spontaneously using social media and cleaned the entire country in a single day. Estonia was suffering from decaying social services after its transition from communism to the market economy and democratic governance. This was not an NGO-lead effort, not a government-lead effort, it was the effort of a grassroots open, transparent and decentralized network.

By the end of 2011 more than 2.5 million people have participated in Let's Do It! cleanup actions in 16 countries – Estonia, India, Slovenia, Serbia, Finland, Romania, Latvia, Lithuania, Portugal, Bulgaria, Moldova, Ukraine, Cambodia, Russia, Hungary and Brazil. In some of these countries, this action is now repeated every year. This global movement is now called *Let's Do It! World* and it is an accredited member of the United Nations Environment Programme (UNEP).



At the local level, Sensorica contributed to the *Plan d'action du sport et du plein air urbains 2018-2028*⁶ public consultation, organized by City of Montreal's *Commission sur la culture, le patrimoine et les sports*. Our memo⁷ presented two examples of participatory projects with social impact that illustrate the Fourth Sector's potential, how it is organized and how it operates: one about amateur sports in the digital age, and the second one about connected and smart public furniture for smart cities. As a result, and aligned with a growing number of similar initiatives internationally, we recommended a more *participatory city*. We proposed a *city-as-partner* model, as opposed to the *city-as-service* model that currently dominates.

⁵ Sensorica's consultation document <https://bit.ly/2tNTlcg>

⁶ *Plan d'action du sport et du plein air urbains 2018-2028* <https://bit.ly/2IsWTeT>

⁷ Sensorica's consultation document for City of Montreal's *Plan d'action du sport et du plein air urbains 2018-2028* <https://bit.ly/2UmBKt6>

Development of new p2p (peer-to-peer) approaches to social development pertain to social innovation. Once implemented, these new forms of services can address social issues unattainable by public and private offerings. They are usually well-rooted in local realities, as are most non-profit offerings, except they tend to be more dynamic and more resilient than typical offerings structured within the social (third) sector. The Fourth Sector has the potential to address marginal social issues in almost real time, saving national and regional governments millions of dollars.

“ Government must level the playing field by broadening its understanding of innovation beyond business and technology. It must acknowledge the important contribution that charities, non-profits and co-operatives and mutuals make to Canadian society, including through innovation. It must breach the perceived walls between the structures and motivations of the charitable and non-profit, private, and public sectors. Cross-sectoral partnerships are essential for the type of systems change we hope to create.

ESDC, 2018: *Inclusive innovation: New ideas and new partnerships for stronger communities*

“

The Economy of the Fourth Sector

It should be noted that the Fourth Sector today goes well beyond mere coordination of people collaborating in gratuitous and purely altruistic gestures with spare time and resources. It has developed its own economy.

In the spring of 2017, Quebec's *Ministry of Economy, Science and Innovation* formed the *Groupe de Travail sur l'Économie Collaborative*⁸, to conduct a public consultation and produce a report⁹ about this new economic phenomena. Sensorica contributed a memo¹⁰ about the economic foundation of the Fourth Sector to this public consultation. The Fourth Sector is well on its way to becoming a self-sustainable movement operating on a new set of economic principles and models, summed up under the theme of the *collaborative and p2p economy*.

“ ... the fourth sector can do more with less, at large scale. “

There is tremendous latent potential in our society that doesn't get channeled efficiently through governmental institutions, private companies or non-profit associations. The Fourth Sector offers an approach to realizing this potential for social good. Based on the collaborative economy (a set of relations among peer individuals and organizations that allow both to mutualize resources and utilize each other's excess capacity), the Fourth Sector can do more with less, at large scale. p2p collaborative practices reduce the cost of coordination among peer individuals and organisations.

⁸ *Groupe de Travail sur l'Économie Collaborative* <https://bit.ly/2HvREet>

⁹ Report of the *Groupe de Travail sur l'Économie Collaborative* <https://bit.ly/2I3Q7SU>

¹⁰ Sensorica's memo to MESI <http://bit.ly/2Hkt7eL>

Network and *ecosystem* have become widely used buzzwords. They are gradually replacing the machine metaphor of the industrial era. Governments ambitiously invest in creating open innovation networks and super-clusters, yet they often lack the understanding and experience required to sustain such complex and dynamic organizational structures. Traditional organisations struggle to achieve wide scale collaboration. Network failure and/or ecosystem collapse are very common as complexity increases, due to a mismatch in culture, to inappropriate governance, confusing contractual relations, complicated legal structures, and inadequate understanding, experience, tools and methodologies required for this work. The tools and methodologies developed by the Forth Sector are almost directly applicable to networks of traditional organisations.

Sensorica leverages nearly a decade of hard-won learning and problem-solving for the Fourth Sector. These experiences, as well as the broad network of relationships that we've forged, worldwide, with numerous animators and innovators of the peer-to-peer, decentralized web and Open Value Network communities, equip Sensorica to serve *as a catalytic platform* - providing crucial support services, infrastructure and governance guidance and funding toward important local initiatives. In this way Sensorica can bolster and reinforce the growth and sustainability of the national ecosystem, fostering the creation of linking structures embedded in the local community where knowledge of key leverage points in social and economic development resides.

Project Governance and Leadership

Open by design

“Organizations which design systems ... are constrained to produce designs which are copies of the communication structures of these organizations” - Melvin Conway – “Conway’s Law”

Legal Form

The LEVOICE pilot project will be operated by the *Canadian Academy for the Knowledge Economy* (CAKE), an established nonprofit organisation, and will be supported and resourced through the Sensorica network. CAKE / Sensorica is well connected locally, regionally and internationally. People composing the Sensorica network are experienced in formulating and implementing open innovation policies, organizing sensibilization events, growing connections between local projects, and incubating collaborative ventures.

CAKE will be the recipient of the grant and will be responsible for the management and the deliverables of the project. This nonprofit will be administered by the main members of Sensorica, supported by representatives of other important local actors (see section titled Collaborators). CAKE was created by Sensorica members to manage all the legal and financial aspects of the network. The governance of CAKE, mixed with the governance of Sensorica has been tested and proven to be effective since 2014.

Following the culture of transparency from its funding organization, CAKE will fully document the decision making process and the budget allocations.

Collaborators

“Many ideas grow better when transplanted into another mind than the one where they sprang up.”
- Oliver Wendell Holmes

Hatching a plan for LEVOICE / NOICE has itself been a collaborative effort. Because of the momentum behind the global collaborative movement, achieving buy-in and willingness to collaborate on a vision for this project has evolved naturally.

Project execution

Sensorica – A peer-to-peer network of collaborative entrepreneurs that use a pioneering IT infrastructure for network resource planning, new work methodologies, and new governance to structure and regulate the network’s activities. Sensorica and their partners offer established expertise in the creation of internationally connected

collaborative ecosystems. Its approach is based on a study of key success factors of collaborative structures currently in place in Montreal and an assessment of these projects by users and citizens.

Collaborators to date include

- *Développement Économique Canada (DEC)*
- *Arrondissement Verdun* - Jean-François Parenteau – Mayor, Pierre L'Heureux, Borough Councillor, Diane Vallée, Director, Verdun Collaborative Project
- *City of Montreal* - Nicole Ollivier, Director of Culture, Sports, Leisure and Social Development, City of Montreal
- *Province of Quebec* - We met with the Quebec's former minister of Economy, Science and Innovation, Dominique Anglade, in December 2016, and we have the support of Isabelle Melançon, MNA for Verdun.
- *Private Foundations* - We have the support of private foundations that encourage social innovation projects. We have met with the Trottier Foundation and with the McConnell Foundation in December 2016. We also met with the Fondation Mirella et Lino Saputo in December 2016.
- *Société de Développement Commercial Wellington* – A non-profit organization with the mandate to promote the development of businesses on Wellington Street in Verdun and to contribute to a dynamic local economy.
- *Neil Squire Society* - A nonprofit which works towards the accessibility of technology.

Industry collaborators

Robco Inc. - A centenary manufacturer serving the heavy industry, with plants in LaSalle (Montreal, QC), Trois Rivières (QC), and Mississauga (ON). Robco is adopting open innovation and collaborative practices, and it is willing to host a TechShop / Makerspace, while providing access to its own manufacturing equipment to the local community.

Partner support letters

- [*P2P Foundation*](#) - Think-tank, helping people, organizations and governments to move towards commons-based peer-to-peer.
- [*Le Chantier de l'économie sociale*](#) - Promotes the social economy as an integral part of Quebec's pluralistic economy and thereby contribute to the democratization of the economy and the emergence of a development model based on the values of solidarity, equity and transparency.
- [*Techno Culture Club*](#) - Invent the cultural practices of the 21st century with institutions and their audience.
- [*Growing Without Borders*](#) - A charity with the mission to improve access to technology for all, and promotes digital literacy.
- [*Helios*](#) - Makerspace in Montreal
- [*Food Lab*](#) - A new initiative to create an open space focused on innovation and food education
- [*BricoBio*](#) - Biohacking laboratory in Montreal

- [Esplanade](#) - An accelerator and collaborative space dedicated to entrepreneurship and social innovation in Montreal.
- [Breathing Games](#) - An open international network developing therapeutic devices open source for respiratory problems.
- [Robco Inc.](#) - Private Company, designs, manufactures and distributes sealants, insulation and lubrication for heavy industry. A century-old manufacturer, with plants in LaSalle (Montreal, QC), Trois-Rivieres (QC) and Mississauga (ON). Robco has adopted an open innovation and collaborative practices and is willing to host a TechShop or makerspace while allowing access to its own manufacturing equipment to the local community.
- [The Hive](#) - sociofinancement platform with Assistance contractors.

LEVOICE draws its human power from Sensorica

Sensorica is an *Open Value Network* (OVN) of social and collaborative entrepreneurs, started in February 2011, in Montreal, Quebec, as an independent grassroots initiative.

The OVN model refers to a self-organizing mode of social assembly, affiliation, coordination, collaboration, creation and commerce wherein individuals - operating as peers, free of any formally imposed artificial hierarchy of power relations - convene themselves for the purpose of productive effort. They share a common pool of equipment, material and financial resources and, to their best collective estimation, distribute fairly and equitably the rewards and recognition derived from their joint efforts. To sustain the integrity and efficacy of this mode of social assembly, production, sharing and fair distribution, Sensorica provisions a platform of key collaborative coordination mechanisms and fosters a set of essential policies and social norms within the network.

Sensorica participants use a Montreal-based open innovation lab (a physical space under the custodianship of CAKE), a pioneering IT infrastructure for process and resource planning (called the *network resource planning and contribution accounting system*, or NRP-CAS for short, also under the custodianship of CAKE), adapted work methodologies, and governance to structure and regulate the network's activities. These organisational tools developed over almost a decade, along with the experience accumulated, will be the starting point of LEVOICE.

The network harbors collaborative projects and initiatives with social and economic impact, from urban agriculture, to the design of new open source scientific instruments and therapeutic devices, to industrial and consumer electronics and software applications. Sensorica can be seen as an incubator and accelerator of collaborative ventures, using a new collaborative entrepreneurship model.



Activities at the Sensorica Montreal lab

Traditional economic paradigms can't explain how the Sensorica network could have sustained almost a decade of ground-breaking work with minimal financial resources. Not only have we developed a strong organisational structure and a *commons-based peer production* economic model, but we have also led social and technological innovation, all with an average operational cost of only \$2000 per month. That is actually typical for Fourth Sector organisations, who exploit non-monetary ways to carry out social and economic activities.

For lay people, this feels almost like magic. They felt similar emotions when first learning about Linux, the most performing operating system produced by an open source community instead of a company, or about Wikipedia, an open encyclopedia created by millions of readers. People are perplexed that such great things can be created without money. In fact, these things aren't created out of thin air. Millions of individuals across the world invest their time and other tangible resources in Linux, Wikipedia and many other similar initiatives. They are driven by a variety of intrinsic and extrinsic motivation. The secret to creating these types of collaborative initiatives is incorporating a diverse system of incentives that attract a critical number of contributors. It is clear that we can now enlist people in great projects with or without money, which offers new possibilities to do great things. The Fourth Sector has shattered the financial barrier.

Sensorica has proven expertise in this domain and can also leverage its international reputation to attract top talent for LEVOICE. After almost a decade of development in the Canadian context, Sensorica has created an arsenal of tools to enrich the Fourth Sector.

Moreover, Sensorica has demonstrated strong commitment for integrating the social collaborative economy in Montreal. In early 2014, Sensorica spearheaded the Open Alliance¹¹ initiative to federate fablabs, makerspaces, hackerspaces and other types of open spaces and grassroots communities under a unique infrastructure, to become the basis of a new social and collaborative economy. This project was conducted in collaboration with the CDEC Rosemont (today absorbed into PME Montreal¹²) and Mai Thi Thanh Thai, a professor from HEC Montreal. Sensorica's Open Alliance initiative failed for lack of funding. Meanwhile, numerous similar projects to federate collaborative initiatives into a coherent, formal socioeconomic model were developed around the world. Today, the most advanced one is Fab City, a new urban model for self-sufficient cities, with local innovation connected globally. The Fab City has been initiated by the Institute for Advanced Architecture of Catalonia, MIT's Center for Bits and Atoms and the Fab Foundation; it operates within the Fab Lab network, using it as a global infrastructure and knowledge source for the radical transformation on how we work, live and play in cities.

LEVOICE and its successor NOICE are following the same trend, building on our previous Open Alliance experience, which evolved within the Canadian context, and borrowing from new developments across the world.

Recognition

Presentations

- [Canadian Science Policy Center conference / 2017](#)
- [World Forum for a Responsible Economy, Lile / 2017](#)
- [Deep Dive: Rethinking value, Berlin / 2016](#)
- [p2pValue International conference, Amsterdam / 2016](#)
- Presentation to the [Ministry of Innovation Science and Economic Development](#) / 2016
- Invitation to private meeting at the [White House](#) / 2015
- [Impact Economy Summit](#) / 2015
- [OuiShare Paris](#) / 2014
- [TEDx Montréal](#) / 2013

In the press

- [SENSORICA ou quand l'accès libre se met au service du bien commun](#), Hinnovic / 12 nov, 2015
- [SENSORICA, nouveau modele d'affaire ou mode passagere?](#) Revue Gestion, HEC Montreal / 2014
- [Économie peer-to-peer : témoignage d'un entrepreneur](#) [SAJE Montreal]
- [Owning Together Is the New Sharing](#), Yes Magazine / 2015
- [Owning is the new sharing](#), Shareable / 2014

¹¹ webpage

<http://www.sensorica.co/home/working-space/labonline-network/montreal-labonline/the-open-alliance>

¹² website <https://pmemtl.com/en/>

In documentaries, available on Netflix

[A New Economy](#)

LEVOICE governance

Collaborative spaces typically emerge as a result of either a grass roots initiative or as a sponsored project. Each of these approaches has challenges and advantages.

Grassroots collaborative innovation spaces	Sponsored collaborative innovation spaces
Advantages: increased community involvement and buy-in, lower operational costs, horizontal governance, connection with other communities.	Advantages: easier access to traditional institutions, better access to resources and easier to recruit and maintain staff.
Challenges: financing and recruitment, and maintaining staff.	Challenges: ideological conflicts between the sponsor and users, high operating costs, stakeholders with expectations of deliverables, closed or pre-defined projects or ventures.

LEVOICE / NOICE is a hybrid approach. The founding of new CELLS would be sponsored at the outset by different levels of Government. However, the governance structure would be primarily horizontal, with staff providing services that create opportunities for local communities to continually define and evolve their own direction and goals.

Within five years of launch, CELLS will be financially self-sufficient, autonomous but strongly interconnected. Annual operating costs will be offset by revenue generated by membership fees, space and equipment rentals, sponsored projects, educational services, events and revenues generated by collaborative entrepreneurial ventures (see section titled Project Revenues).

It is important to distinguish the role of LEVOICE from traditional incubators and accelerators. LEVOICE is a network of coworking spaces and open innovation labs, where communities can gather, learn, and work in a collaborative setting. Like with traditional incubators and accelerators, our ecosystem will provide access to resources and services to help social ventures. However, LEVOICE will be focused mostly on *collaborative social entrepreneurship* and the creation of open and collaborative ventures. Our goals also include community rejuvenation, empowerment, digital literacy and new economy skills training. LEVOICE is also defined by the outcomes of community engagement within the communities it serves and therefore the mandate, services and equipment available in each CELL will vary from community to community.

NOICE will also offer services to assist social entrepreneurs in the development of their ventures. However, the goals of NOICE go beyond supporting startup ventures to include community rejuvenation, empowerment, literacy and skills training. NOICE is also defined by the outcomes of community engagement within the communities it serves and therefore the mandate, services and equipment available in each CELL will vary from community to community.

LEVOICE fits into the existing framework of collaborative working spaces in Montreal and beyond. It will work with these spaces to complement services. Whenever possible, LEVOICE will work with collaborative innovation spaces outside the network to cross-promote activities and services. Existing and new spaces that emerge outside of LEVOICE can get integrated into our platform to enhance opportunities for collaboration, to extend services and revenue opportunities for the entire network.

CAKE / Sensorica in action in Verdun, Montreal

From November 5th to the 23rd, 2018, Sensorica and Ouishare organised eco2FEST 2018¹³, an *open space* and *unconference* where we engaged the Montreal South-West population in discussions and workshops about the social and collaborative economy.

A significant number of local organisations that engage in socio, economic and cultural development contributed to the eco2FEST experience and manifested their interest in future collaboration. We also engaged governmental organisations in general discussions about the collaborative economy.

Special participants at eco2FEST

Name	Role	Organisation
David Lametti	At the time Parliamentary Secretary to the Federal Ministry of Science, Innovation and Economic Development, and MP of the Montreal South-West	Federal Government, Ministry of Science, Innovation and Economic Development
Pierre Bisson	Economist, Direction des politiques et de l'analyse économiques	Ministère de l'Économie et de l'Innovation
Guillaume Lavoie	President of Quebec's <i>Groupe de Travail sur l'Économie Collaborative</i> ,	<i>Groupe de Travail sur l'Économie Collaborative</i> / MESI 2018

¹³ eco2FEST event's website <https://www.eco2fest.com/>

	in charge of the aforementioned public consultation and report	
Cecile Vergier	Commissaire du développement économique	Ville de Montréal, Economic Development and Social Innovation
Jean-François Parenteau	Mayor of Verdun	Ville de Montréal
Véronique Tremblay	Economic Development Council	Verdun borough



eco2FEST space, Verdun, Qc., November 5th to 23rd, 2018

We plan to publish a comprehensive report about eco2FEST during the month of July 2019, in collaboration with Jeremy Diaz, a researcher at UQAM University. Our preliminary conclusions show that Verdun consists of a vibrant community with an informal network of coops and non-profit organizations that collaborate to improve the well-being of local citizens. Their activities span from awareness-building and education programs through to those that strengthen social cohesion and mutual support, to urban agriculture, fair commerce and cultural events. The civil society in Verdun is in development mode, and is still far from the stage of emancipation and refinement seen in Le Plateau, Montreal - the epicenter of the social economy in Quebec. Although the Verdun borough pays a lot of attention to these local social development initiatives, resources are very scarce. We maintain that local third sector can do a lot more with the little they already have by mutualizing resources and collaborating better through the deeper, more productive relationships, fostered by collaborative economy models. The third sector is stronger with the Fourth Sector.

The three-week-long eco2FEST event gave local organisations opportunities to know each other and strengthen their bonds. A few months later, some of them are still meeting on a regular basis and planning for a better future in the Montreal South-West neighbourhood.

Objectives

Build capacity for the Fourth Sector

“The purpose of organizations is to exploit the fact that many (virtually all) decisions require the participation of many individuals for their effectiveness”- Kenneth Arrow

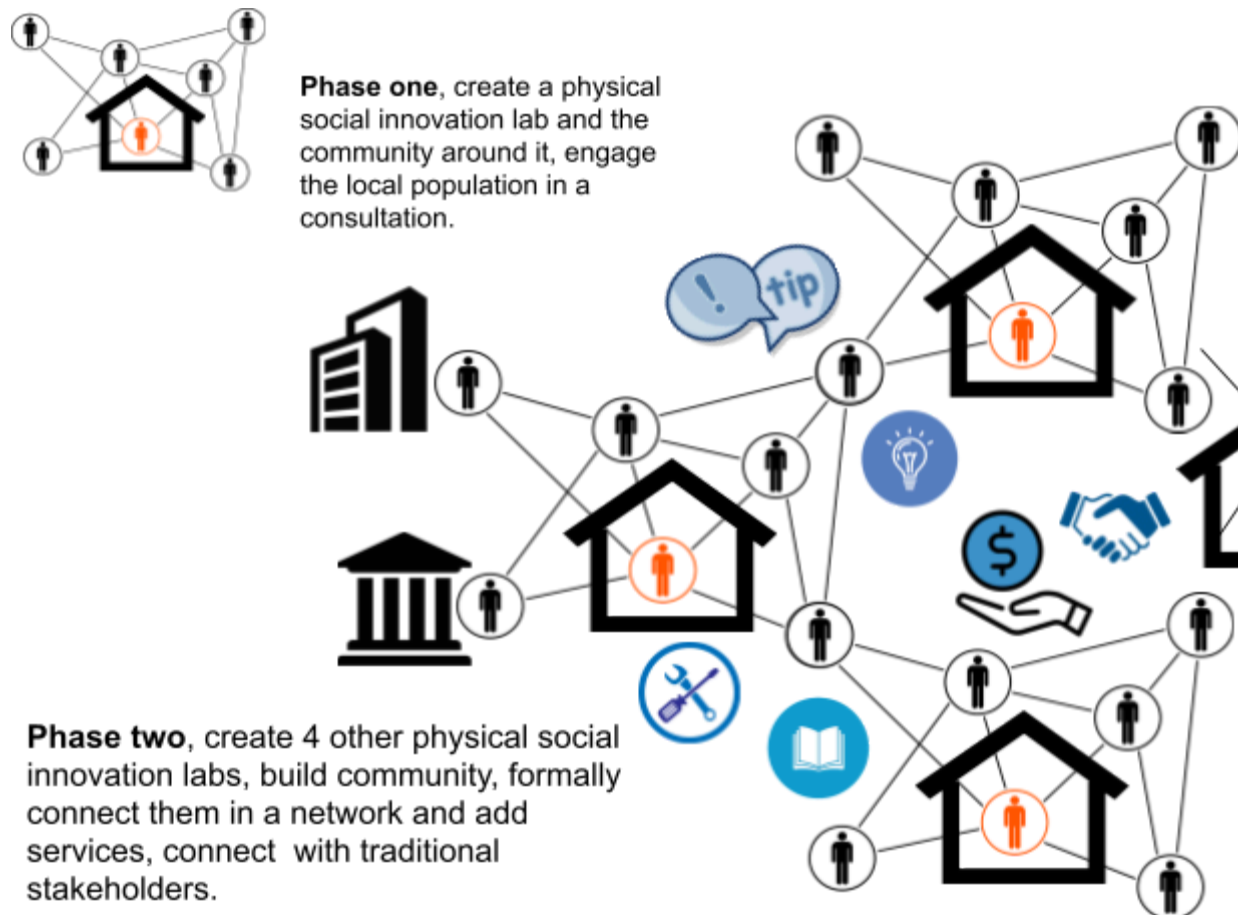
The overarching objective of NOICE is to **build capacity** for the Fourth Sector, and to **provide a safe and secure environment** for open and collaborative initiatives to interact with initiatives stemming from academia, industry, government and the social sector. More concretely, we will build a peer-to-peer platform to interconnect open spaces (ex. makerspaces), private companies and academic labs, to provision a full complement of collaborative innovation and entrepreneurship resources, shared among participating contributors of all kinds. We will provide resource and project management tools, as well as services to facilitate collaborative innovation. NOICE will be the world's first social and collaborative economy cluster.

To reach this objective, during the LEVOICE pilot phase we will create five networked Community Engagement and Learning Labs (CELL). Each CELL is a space where individuals, communities and companies can collaborate openly and access different types of resources and services. This simultaneously advances Canada's innovation network, while building community, digital and innovation literacy at the grassroots level. Such a network not only powers Canada's innovation agenda but also its communities, especially those that are critically under-served yet essential for Canada's social economy.

The objectives of LEVOICE are as follows:

- 1) **Discover** the collaborative makeup of the LaSalle—Émard—Verdun communities, their needs for collaborative infrastructures, and their desire to participate in the LEVOICE initiative.
- 2) **Create physical spaces** that foster open innovation and collaborative social entrepreneurship
- 3) **Provide a platform** to host collaborative social economy practices, mixing individual initiatives with public and private initiatives. This includes cutting edge IT infrastructure using the latest distributed ledger technology for distributed resource and project management.
- 4) **Build capacity** by offering services and educational programs.
- 5) **Expand** by building formal relations with academia, the industry and the social sector.
- 6) **Scale** LEVOICE to NOICE

There exist a variety of open spaces where people from the local community meet to innovate. The unique and innovative approach that NOICE engenders is to apply collaborative social economy practices, IT infrastructure, governance and methodologies to formally connect these spaces, their communities and traditional organisations into a coherent and highly efficient network. We believe that this is essential to increase the potential of the Fourth Sector.



LEVOICE - NOICE pilot project

In order to reach the objectives of NOICE, we propose a pilot project in the riding of LaSalle—Émard—Verdun, which we call the LaSalle—Émard—Verdun Open Innovation Collaborative Ecosystem (LEVOICE).

During **phase one** of LEVOICE we will first establish a *Community Engagement and Learning Lab* (CELL) in Verdun, a 2000 sq ft space with specialised equipment where members of the community can gather, collaborate, experiment and innovate. This first CELL will be in Verdun for the following reasons:

1. The municipality in Verdun is well organized, on board with LEVOICE and ready to move ahead, and
2. The demographic make-up of the community and the community's existing collaborative DNA makes it ripe for engagement and uptake of this grass-roots initiative.

Verdun is very locally minded yet most residents work outside of the borough, there are limited public workspaces, and startups tend to leave the area post launch. Under the leadership of Mayor Jean-François Parenteau, residents are primed for innovative solutions to community building and entrepreneurship. Verdun is ideally placed to make it a leader in this locally anchored global phenomenon.

The CELL will be animated by paid core contributors and by volunteers, who will plan and host six community engagement events, over the course of 12 months.

The success of phase one will be measured by community participation and engagement, which will be monitored, measured and documented. After one year of operation of the first CELL, Phase one will conclude with a report including recommendations for how to proceed to phase two.

The results of the phase one engagement strategy will inform **phase two**. In phase two, LEVOICE will launch four additional CELLS across the riding of LaSalle—Émard—Verdun. The services, activities, and equipment offered in each CELL will reflect the needs of the local community. LEVOICE will share IT infrastructure, governance structures, services, and equipment across the five CELLS to: minimize operational costs; maximize collaboration; create a full complement of services and equipment spanning the networked “ecosystem”, including end-to-end services to support social entrepreneurs; and to maximize connections to the community and with other communities across Montreal, Canada, and internationally, including ties with academia, industry, and government. This advanced network structure approach is the specificity of NOICE. We expect this collaborative economy cluster to reach maturity over the course of four years.

Phase three will be the completion of a report outlining recommendations as to how to expand the LEVOICE model across Canada and to establish NOICE. After five years of implementation of the LEVOICE ecosystem (the first year operating one CELL in Verdun and the subsequent four years operating four additional CELLS in LaSalle—Émard—Verdun), we will analyse the impact of the project using the metrics outlined in the section titled *Impact*. This report will be completed in collaboration with our academic partners.

Impact

Create conditions to develop potential from the edge

“We talk to much about jobs and not enough about work... What's keeping us from doing that work?... We're diverting our energy and investment away from doing the work that needs doing towards financial games.” - Tim O'Reilly

The impacts of the LEVOICE pilot project, and later of NOICE, will be economic, social, and cultural.

At the economic level, it will incubate and accelerate new types of ventures, develop new economic models and practices, and help people gain valuable skills and labor market experience. NOICE will also build on Sensorica's templates for relations with academia, the private sector and the social sector. It will provide a structured environment where the costs of constructive interaction between all the sectors is greatly reduced.

At the social level, CELLS (open and participatory spaces) will insure inclusivity and multi-generational interaction. Using leading-edge organizational tools developed for open communities and networks, this diverse mix of individuals will better innovate to combat economic and social disadvantages.

The LEVOICE / NOICE project will also foster “open” culture dynamics, in an environment where transparency, free access to participation and sharing become part of the strategy for success.

Axes of impact for LEVOICE

We will use a variety of metrics to evaluate economic, social, and cultural impact, and to plan the expansion of the program to include more CELLS. We have included metrics that present a baseline of impact in different areas, from independent CELLS operating in the Quebec province, such as Helios makerspace, Bricobio biohacking space, Sensorica lab, La Fabrique and Ouishare. It should be noted that open space models are less than two decades old, and are still evolving as part of a global movement. The local CELLS included in our proposal are considered to have reached a self-sustaining model. The LEVOICE pilot project will produce a much larger impact along all the axes discussed below, due to the synergy and network effects induced by the initial five tightly connected CELLS. We will also implement a mix of best practices and will collaborate with other existing organizations on support services (see the Collaborators section).

Improve the quality of local actors

Services and education

Over the past eight years, Sensorica has received countless consultancy requests from local and international organizations who have manifested their interest in adapting participatory models to their own contexts. The number of these requests increases every year, as the Fourth Sector continues to evolve.

Offering consultancy services
Metric: Current number of requests for consultancy services per CELL, per month.
Past data Sensorica: minimum 5 Helios: maximum 5 BricoBio: 2

In Quebec, *Le Chantier de l'Économie Sociale* plays an important role in educating local actors and spreading best practices. We have been engaged in dialog with Le Chantier since 2014, and we are grateful for their letter of support for NOICE. We will work with Le Chantier to provide complementary consultancy services and education for p2p and participatory processes, as well as for collaborative economy models.

It is in the nature of CELLS to offer educational services and to organize educational events. For instance, FabLabs propose educational activities around digital fabrication technology, teaching kids and elderly alike about 3D printing and basic electronics. Some educational activities are designed as paid services and contribute to the sustainability of the CELL. Other activities are offered free of charge, being designed as an outreach or marketing function to create visibility, attract more people in the community, establish a presence and nurture reputation. CELLS have an inherent educational function in the local society.

Examples of educational activities offered in the past by Sensorica:

- Well-structured courses: 3D design and Digital Fabrication course¹⁴
- Initiations, presentations: 3D Printing and Entrepreneurship: A Co-Evolution¹⁵
- Hackathons: eCommunity Garden at écoHACK Montreal hackathon¹⁶

¹⁴ <http://bit.ly/2pril8s>

¹⁵ <http://bit.ly/2oii6hQ>

¹⁶ <http://bit.ly/2oioMfR>

Sensorica is currently developing a course on social and collaborative entrepreneurship¹⁷. To our knowledge, this is the first course of this type in Canada, and perhaps in the entire world. We are maintaining an open dialogue with *PME Montreal*¹⁸ and *Ecole des Entrepreneurs du Québec*¹⁹, who support the NOICE project, to eventually integrate this course and the tools that we build around it as a complement to their services.

Offer educational events	Offer structured courses and workshops
Metrics: Number of punctual educational events (presentations, discussions, ...) per CELL, per year. Number of individuals attending these events.	Metrics: Total number of structured courses and workshops per CELL, per year. Number of individuals attending these courses.
Past data OuiShare: over 20 events, average 50 attendees (Quebec) Sensorica: over 20 events, average 15 attendees BricoBio: 3 to 5 events, between 25 and 50 attendees Helios: 2 to 4 events, average 30 attendees	Past data La Fabrique: 80 courses and workshops, 338 individuals formed in total, in 2016. Helios: 20, averaging 6 attendees Sensorica: 2 courses, average of 15 attendees BricoBio: 3-5 (one workshop with 35, 3-4 workshops with small classes of less than 10)

LEVOICE will build on Sensorica's past educational activities and create a series of educational programs tailored for the population of Montreal South-West.

Develop new solutions for social problems

Research, innovation, incubation and acceleration

CELLs are emerging as loci where cutting edge innovation is brewing. Some of the most disruptive technologies, such as 3D printing and Blockchain, have been developed in fablabs and hackerspaces. Moreover, CELLs incubate and accelerate entrepreneurial projects. They establish collaborations with the private sector²⁰, helping them address new market needs, stay relevant in the marketplace and maintain / create jobs. They also establish collaborations with Academia, performing new applications development and technology transfer to their entrepreneurial individual members and to their private partners²¹. Collaboration with academia also leads to the development of low cost, open source scientific instruments, and to the development of open science methodologies²².

¹⁷ Sensorica's course on collaborative entrepreneurship <https://bit.ly/2TsGj7H>

¹⁸ <https://pmemtl.com/en>

¹⁹ <https://eequebec.com/>

²⁰ See example from Sensorica <http://bit.ly/2p8UpMP>

²¹ See example from Sensorica <http://bit.ly/2ogW6Um>

²² See example from Sensorica <http://bit.ly/2oChhkO>

Stimulate entrepreneurship	Accelerate technology transfer through collaborations with academia	Help traditional organisations to innovate
Metric: Number of entrepreneurial projects per CELL, per year.	Metric: Numbers of collaborations on research projects with academia, per CELL, per year.	Metric: Numbers of collaborations on innovation with traditional organisations, per CELL, per year.
Past data Sensorica: Up to 3 to 5 very active and high potential projects per year; up to 40 ongoing projects in all, in different stages of development. Helios: 3 very active projects. BricoBio: 1	Past data Sensorica and OuiShare: between 1 and 3. Helios: 3 BricoBio: 1	Past data Sensorica: 2 Helios: 1

CELLs harbour collaborative entrepreneurial projects. They offer fast prototyping services, access to shared resources, co-working spaces, opportunities and support to skillful individuals. LEVOICE will also expose entrepreneurs to new economic models and will provide them access to a vast network of resource organizations. For example, we are in discussions to establish partnerships with *PME Montreal* and *Ecole des Entrepreneurs de Montréal* to provide financial support and coaching for starting social and collaborative ventures.

Incubate entrepreneurial projects	Spin offs - create mature, independent ventures	Viable spin offs
Metric: Number of entrepreneurial projects per CELL, per year	Metric: Number of spin off mature ventures per CELL, per year.	Metric: Number of spin offs per CELL still in operation after 3 years.
Past data OuiShare: 5 (accelerated during eco2Fest) Sensorica: 2 very active. Helios: 1 BricoBio: 1	Past data OuiShare: 3 Sensorica: 1 BricoBio: 1	Past data One registered case from BricoBio. Data largely unavailable.

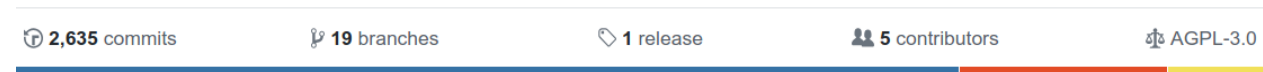
A more efficient Fourth Sector

Infrastructure building

The Sensorica network is mostly known for its unique IT infrastructure called NRP (network resource planning - as an alternative to ERP or enterprise resource planning) to support

complex socioeconomic relations among peers (individuals or organizations). It is built on the REA (resource-event-agent) ontology, developed by William McCarthy from Michigan State University, a world-leading scholar in distributed economic processes and accounting for the networked economy. William (Bill) is now teaching Sensorica's economic model in his University courses. This technological support allows autonomous socioeconomic agents to form large network structures. The NRP can be easily adapted for other use cases: managing a consortium, and supporting collaborative crowdsourcing (as opposed to prize-based, competitive crowdsourcing), etc.

Metrics from NRP development on Github²³



The NRP is still a server-based application (centralized), designed to mimic p2p interactions and to model p2p economic processes. It has been designed before blockchain became popular. Sensorica and its partners are now ready to re-architect the NRP, using the latest decentralized web, distributed ledger, and artificial intelligence technologies. LEVOICE will be the application ground of these innovative tools, which will greatly benefit the Fourth Sector.

The next generation NRP initiative led by Sensorica will establish Canada's leading role in the development of international standards and norms governing *Open Value Networks* (OVN). In this context, it should be noted that the OVN work will input directly into international ISO standards development, namely, ISO/IEC 15944-15 *Information technology - Business Operational View - Part 15: Open Value Networks (OVN): Integrated perspective on Open-ed, eBusiness, blockchain and distributed transactions*²⁴.

A more cohesive Fourth Sector

Engage, connect

CELLs operate in a very social way. Their activities are transparent and open. They propagate their activities on social media and engage their followers. Through their events (presentations, discussions, hackathons, ...), CELLs bring people together around different topics and forge social relationships. In other words, CELLs, much like traditional community centers and churches in the past, increase our social/relational capital, which has a great impact on society. They seed and nurture a new collaborative culture, and they create and reinforce networks.

²³ <https://github.com/valnet/valuenetwork>

²⁴ The lead international ISO Project Editor : Prof. William McCarthy, with Jake Knoppers as one of two Co-Project Editors. The international ISO standards committee responsible here is ISO/IEC JTC1/SC32/WG1 (where JTC1 = Joint ISO, IEC = Technical Committee on Information technology, SC = Data Management & Interchange, WG1 = eBusiness).

Active affiliates or members	Social media influence
Metric: Number of unique individuals that identify themselves as active affiliates or members (local or not) of the CELL, per year.	Metric: Total number of followers on Facebook, per CELL.
Past data Sensorica: over 100 OuiShare: over 30 (Quebec), over 6000 (Global) La Fabrique: 60 Helios: 60 BricoBio: 7	Past data La Fabrique: 4233 Helios: 2046 OuiShare: 1936 (Quebec), 39,657 (global) Sensorica: > 1000 BricoBio: 562

CELLs also operate online, enlisting participation in local socioeconomic activity from around the world, building ties with individuals and other organizations from around the world. These collaborations strengthen Canada's position on the global innovation and economic arena.

Attract participation in local projects from outside Canada	Generate international partnerships with organizations and networks outside Canada
Number of unique* frequentations of a CELL's virtual collaboration space per month, originating from outside Canada.	Number of partnerships with organizations and networks from outside Canada, per CELL, per year
Past data Sensorica: over 20 BricoBio: 3	Past data OuiShare: over 50 (for OuiShare Global) Sensorica: over 30 Helios: 1

* One individual visiting the space 20 times counts for 1

Reduce unemployment

Skills uptake, work experience, networking

Open innovation spaces are hubs for new skills development and act as magnets for individuals with rare skills. Some of the recent most disruptive technologies have emerged in fablabs hackerspaces. Once educated within these open innovation hubs, some individuals set up entrepreneurial projects, take jobs in companies or become independent consultants. Students frequent CELLs in great numbers, where they acquire new skills, gain experience and build professional networks²⁵. Countless immigrants have passed through the Sensorica lab to gain work experience and build professional networks.

²⁵ See example from Sensorica <http://bit.ly/2pqI5HK>

Produce independent consultants	Employment creation	Employee referral
Metric: Number of unique individuals that acquire new skills or perfect their skills in a CELL and apply them in independent consulting services, per year	Metric: Number of mature spin off ventures created per CELL, per year.	Metric: Number of individuals who have found a job after acquiring experience, new skills or perfecting their skills in a CELL, per year. Not easy to estimate.
Past data OuiShare: minimum 10 Sensorica: 3 Helios: 3	Past data OuiShare : 3 Sensorica: 1 Helios: 1 BricoBio: 1	Past data BricoBio: 4 Sensorica: 3 OuiShare: 3

Since Sensorica is an open innovation network, participating in technical projects is not hindered by the contractual agreements that one usually finds in the job market. No one is employed in the traditional meaning of the word. All participants in projects are either volunteers or freelancers (independent entrepreneurs). Contributions to projects are evaluated based on the peer-reviewed quality of deliverables. This provides a very low barrier to entry for highly skilled immigrants into an experience that can be used as a springboard for employment.

Our discussions with recruitment agencies have revealed that an ecosystem like LEVOICE, provided with IT infrastructure for project management that also captured participants' contributions to project, would be a great source of talent that they can match with great employment opportunities. Furthermore, we intend to propose a partnership between LEVOICE, Emploi Quebec and Employment Canada, to use the five CELLS as a springboard for employment, that can well serve new immigrants as well as students.

Spread the sharing and collaborative culture

Communications, events

CELLs foster the sharing and collaborative culture. Individuals operating in these environments learn new working methodologies and are introduced and sensitized to global societal and environmental issues. LEVOICE will nurture the collaborative entrepreneur and will incubate open, transparent, and collaborative ventures that are highly accountable and auditable. These ventures are based on fairness, they implement systems for redistribution of benefits based on merits.

As they are transparent and open, their activities respect high ethical standards and their products and services are designed with high environmental and social standards. With NOICE, we strive to make our economy and our society more humane and more sustainable. CELLS

offer experiences that are organized around these themes and these core values. People who participate in these events are infused with what we call the *open culture*.

Offering experiences that vehiculate values from the open culture
Metric: Number of activities nurturing the open culture per CELL, per year and the average number of attendees.
Past data OuiShare: over 20 events, average 50 attendees (Quebec), one mega event eco2Fest Sensorica: over 20 events, average 15 attendees BricoBio: 3 to 5 events, between 25 and 50 attendees Helios: 2 to 4 events, average 30 attendees

Improve Canada's international stand

Communication, excellency

We should not underestimate the fact that Canada is a hotbed for socio-economic and collaborative innovation, with networks like Sensorica. Nevertheless, this field is moving very fast and Europe is two to three years ahead when it comes to the institutionalization of these new socioeconomic practices. A study published by the P2PValue project²⁶ puts Europe in the first place for concrete policy making activities, ahead of Asia and South America, with North America and Africa in the last two positions. Progress in realizing the NOICE program will reinforce and advance Canada's international standing in this important field.

Sensorica is regularly invited to present at and participate in international conferences. Moreover, in the past six years Sensorica has received countless requests from organizations around the world who are willing to implement its Open Value Network model.

International communications	Offer consultancy services to organizations outside Canada	Establish international collaborations
Metric: Number of international conferences per CELL, per year.	Metric: Number of mature spin off ventures created per CELL, per year.	Metric: Number of international collaboration per CELL, per year
Past data Sensorica: 3 OuiShare: 3 Helios: 2, 3 BricoBio: 2, 3	Past data Sensorica: 2	Past data Sensorica: 2 BricoBio: 1 Helios: 1

²⁶ <https://p2pvalue.eu/>

Others on Impact

The open innovation ecosystem(s) that Sensorica facilitates and fosters are not exclusively focused on technological or scientific innovation. The common threads that pervade this ecosystem and allied organizations, are “product neutral” - and, as such, offer spaces for open, collaborative participation in processes of particular importance to those present.

The ethos, norms, processes and infrastructure developed by Sensorica over the course of nearly a decade of on-the-ground experimentation and problem-solving experience are fertile ground for the kind of convening that can adapt to the contexts that engage ESDC’s priority groups effectively. Productive interaction with and within these groups flourishes most under conditions of:

- Transparency and Trust
- Openness and Learning Orientation
- Collaboration and Shared Purpose
- Inclusion and Demographic Diversity
- Sustained Engagement and Participatory Culture

These conditions are inherent to the nature of commons-based peer production networks and related network forms of collaboration that are currently active in achieving environmental, economic and social impacts of all kinds.

Drawing on Sensorica’s years of experience as a proving ground for these generative, values-integrative collaborations, NOICE offers critically important investment and readiness resources for the Social Finance fund. The following table identifies important intersections and linkages between the government’s budget priorities, the social finance funding program, Sensorica’s proven capacities and the scaling of those capacities, nationally.

	Social Finance Fund Objective	Fed. Budget priority
Sensorica demonstrated capacities and results (actual track-record)	Inclusive innovation Foster values-driven entrepreneurial collaboration	Innovation and science Skills and talent to prepare Canadians for the workplace of the future
NOICE Unique focus/priority	National awareness for social finance and social innovation. Close the capital financing gap faced by organizations that deliver positive social outcomes	Next-generation digital technology and rural broadband/rural wireless services across the country Strong “social finance market” “Regulatory Sandboxes” to support innovation

Work Plan and Deliverables

Establish proper boundary conditions, creating conditions for emergence

NOICE will begin with a pilot project: *LaSalle-Émard-Verdun Open Innovation Collaborative Ecosystem* (LEVOICE).

Phase one - building engagement (one year)

Phase one of LEVOICE is designed to build engagement within the local community. We will establish a first CELL in Verdun. This will be a 2000 sq ft space with specialised equipment for design and rapid prototyping, with enough room for coworking and small gatherings. In collaboration with the municipal government in Verdun, the proposed site of the first CELL is the rectory of the Notre-Dame-des-Sept-Douleurs Church, a heritage church located in the heart of Verdun, near de l'Église métro.

The Phase One CELL will be animated by staff, providing daily support for lab users, assisting them with their projects, creating an immersive experience in social and collaborative entrepreneurship. Staff will also plan and host 6 community engagement events—2 one-day workshops and 4 three-day maker events over the course of 12 months.

List of main activities

Action	Time	Description
Preparing LEVOICE platform	First 2 months	Define governance, prepare IT tools and web, prepare legal and accounting aspects, define impact and performance indicators and metrics.
Perform the groundwork before the project	First 2 months	Convene local organisations and influential individuals to discussions about the project, recruitment and training.
Establish environment	Month 3	Establish a <i>Community Engagement and Learning Lab</i> (CELL) in Verdun: 2000 sq ft space with specialised equipment where members of the community can gather, collaborate, experiment and innovate. Establish a virtual presence as well, website, social media spaces, etc.
Celebrate the opening of LEVOICE	End of month 3	Convene a splash public event (statement) marking the beginning of the project.

Plan and convene six community engagement events	Over the course of 9 months.	During these events will identify the local community's needs in terms of resources, activities and services that will best respond to its interests and desires. We will also build stronger ties between local actors involved in social and economic development. We will enroll local actors into the second phase of LEVOICE.
Ongoing activities at the CELL	Over the course of 9 months.	The CELL is opened to the public 7 days per week. Organize workshops and courses, consulting, projects and initiatives, events, coworking.
Write report	Month 10 to 12	Collaborate with academic partner of a report about the socioeconomic profile of the region, its Fourth Sector development stage, and including recommendations for how to proceed to phase two.

List of deliverables

Deliverable	Time	Description
Initial platform deployed	First 2 months	Web presence, branding, IT tools, user experience, governance, legal stand, accounting procedures, impact and performance indicators and metrics.
First CELL created	First 2 months	A makerspace infused with an entrepreneurial culture, to be used daily by the local community and to host 6 community engagement events
6 community engagement events produced	Over 12 months	Designed for sensibilisation, education, and to provide first-hand experience with collaborative entrepreneurship practices.
6 event reports	After each event	Describing the collaborative makeup of the local community.
Trimestrial reports	Every 4 months	Describing progress and project readjustments
Phase 1 report	After 12 months	Includes all the documentation about phase one and the main conclusions of the consultation, recommendations for Phase 2

Phase two - building capacity (four years)

LEVOICE will launch four additional CELLS across the riding of LaSalle—Émard—Verdun. Their makeup will reflect the needs of the local community. Our preliminary urban study has identified 6 potential sites for the four additional CELLS in phase two, see figure below.



A platform will be deployed to integrate these new CELLS, sharing a unique branding, user experience, network governance, and IT infrastructure. While maintaining a focus on building community engagement around these CELLS, we will implement education programs and specialized services to support collaborative social entrepreneurs. A variety of revenue generating services will be implemented soon after the creation of the physical spaces. As CELLS mature and the new collaborative culture settles, new revenue generating models will be introduced. Relations with traditional stakeholders will intensify towards the end of phase two.

Deliverable	Time	Description
4 CELLS created	First year of phase 2	Creation of the physical spaces
Ecosystem platform implemented	First year of phase 2	Governance, branding, user experience, IT infrastructure, methodologies of work, work culture
Basic services implemented	First year of phase 2, refined during second year	Onboarding, facilitation and coordination, animation, engagement building, incubation and acceleration service, R&D consultancy services

Normal revenue model implemented	After 12 months	Paid hosting of projects, rental of tools and equipment, education programs, events.
New revenue model implemented	Second and third year of phase 2, refined over the course of phase 2	Consultancy services, human resource support services for the public and private sector, spinoff collaborative venture.
Phase 2 report	End of fourth year of phase 2	Analysis of LEVOICE performance.

Phase three - Scale

Phase three will be a thorough study of phase two, impact analysis, and recommendations as to how to expand the LEVOICE model across Canada and to establish NOICE. Collaboration with our academic partners will be required.

Deliverable	Time	Description
Report and recommendations	During 6 months to one year after the completion of phase 2	A thorough impact assessment of LEVOICE on the local Fourth Sector and on the local social economy as a whole.

Budget Overview

Amplify returns by unleashing latent collaborative potential

“the flow of energy through a system acts to organize that system” - Harold J. Morowitz

The realization of this project will require government seed funding. We also anticipate a wealth of in-kind contributions from other partners as we work the “magic” of the collaborative economy, building synergy among all stakeholders, unleashing latent collaborative potential. All CELLS will be self-sufficient within a period of five years (see section called Project revenues).

Phase One

The first phase (one year) of the LEVOICE project is to build a flagship space in Verdun to embody the project and invite the local community.

In that objective, a standard open innovation lab (the first CELL) will be created in Verdun and 6 events will be organized to allow people in Verdun to experience the collaborative culture, and to participate in pertinent collaborative activities. Through these experiential and consultative events, we map people's needs and desires in terms of collaborative structures in their region, and we build engagement.

Activity - Phase 1	Detail	Budget
Initiate the project	Initial platform deployment: web presence, branding, user experience, resource and project management tools	\$70 000
Kickstart the project	Create the ecosystem around the project and initiate communication.	\$11, 687
OPEN-ing event	OPEN-ing event	\$6, 741
Set up the first CELL	Lease improvements, equipment and furniture	\$99 225
Engagement events	Four engagement events	\$74, 067
Operate the first CELL	Operation costs for one year	\$257, 355
Phase 1 report	Recommendations and call for projects	\$20 000
Total		\$539, 075

Phase Two

Thanks to the consultations of local inhabitants engaged in phase one, the coordination team will be able to recommend four different types CELLS to be implemented in the region, with a strong local participation. Phase two will be completed in four years.

Creating other CELLS

Activity - Phase 2	Detail	Budget
Starting cost of the 4 new CELLS+	Paid only once, as a help to start the infrastructure of each space	\$396 900
5 CELLS operation costs - first year	4 new CELLS and a second year for the first CELL (first year of "real" operation)	\$1,286,775
Ecosystem Infrastructure initial costs	Set the collaborative infrastructure between the CELLS for them being an ecosystem and not 5 independant hives	\$108 675
Ecosystem Governance initial costs	Set the governance between the CELLS and connect them with the Montreal ecosystem - facilitation	\$37 800
Ecosystem level operations and services	Build bridges between the LEVOICE ecosystem and other institutions, provide services to members and partners.	\$346 500
Total		\$1,830,150

Total cost to establish and operate 5 CELLS for 1 year	Establishing and operating one CELL + establishing and operating four additional CELLS	\$2,309,225
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CELLs will require funding to mature during the course of four years. The table below presents an estimation of operations costs for after the establishment of 5 CELLS.

Operations costs during four years

Activity - phase 3	Detail	Annual budget - 1 CELL	Annual Budget - 5 CELLS
CELLs average operations costs	Includes rent, communications bills,	\$257, 355	\$1,286,775

	stuff, etc.		
Ecosystem building and animation roles and budget	Used at the consortium level.		\$100,000
Network-level administration (custodian)	Used at the consortium level.		\$5,000
Total		\$257, 355	\$1,386,775
Total operational cost for 4 years, 5 CELLS			\$5, 547, 100

Phase 3	Closure report and recommendations	\$65, 000
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Total budget		\$7, 921, 325
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Project Revenues


Robust sustainability strategies are critical to the success of the program. Following an initial period of net investment, we are committed to generating recurring revenues sufficient to finance continued network growth and operations.

LEVOICE will not generate revenue in phase one. The project will require funding to complete the second phase. In the first year of the second phase, we are building on existing revenue models of other local CELLS. We will collaborate closely with these partner CELLS to accelerate the implementation of their best practices. As LEVOICE matures, we are implementing new sources of revenue inspired from Sensorica's past experience.

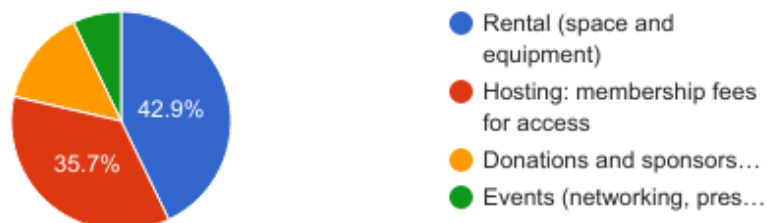
In parallel with the design of revenue streams, we are going to leverage the synergy that will grow within the LEVOICE ecosystem, in order to gain access to essential resources via exchanges of excess capacity, informal trading of complementary resources and sharing of benefits, across the network.

Traditional sources of revenue

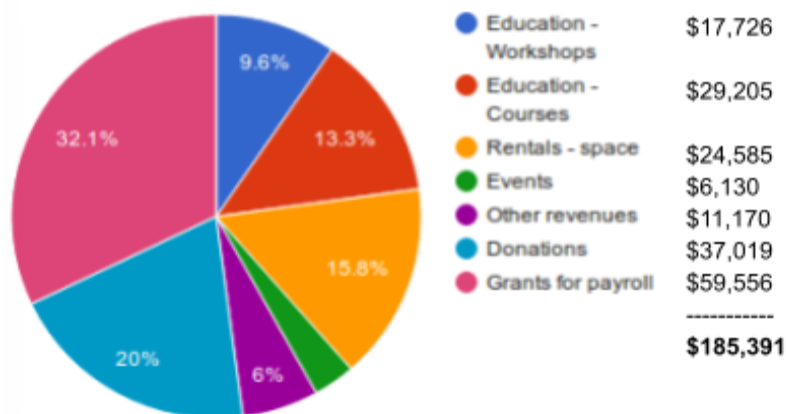
 Hosting	CELLs charge membership fees for those who use their infrastructure and services. For example, fablabs and makerspaces charge a minimum of 50\$/month fees to provide access to the lab and to rapid prototyping equipment. They can also charge more than 300\$/month to startups that make a more intensive use of resources. Coworking spaces charge at least \$250/month for a work desk, while providing reliable Internet connection, meeting rooms, access to a kitchen, access to a printer, etc.
 Rental	Techshops, FabLabs and MakerSpaces use a pay-per-use model to monetise their equipment and tools (similar to renting per hour). They also rent private storage space where their members can keep their belongings.
 Education	CELLs are educational spaces, where locals can acquire a variety of technical skills. For example, fablabs and MakerSpaces organize hackathons and workshops where their members can collaborate on technical projects and learn from the most experienced. They also offer structured courses such as 3D printing and basic electronics. Usually, these are paid events that generate income for the event organizers (collaborative entrepreneurs) and a small surplus that goes to sustain the CELL's operations.

 Events	<p>CELLs are event places, where people come to listen to presentations, watch and discuss documentaries and movies, showcase projects, etc. Some of these events have an entrance fee and/or sell food or beverages. A portion of the income goes to the event organizers (collaborative entrepreneurs) and a portion goes to sustain the CELL's operations.</p>
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Prediction of normal revenue sources, total \$84,000/year



Distribution of revenue for La Fabrique, 2016






NOTE: La Fabrique is a CELL in Sherbrooke, Qc.
The data has been extracted from its 2016 financial report

LEVOICE will benefit from Sensorica's unique economic model and experience in order to implement new revenue generation schemes for CELLs based on collaborative ventures and new types of services. After 5 years, we expect the number of mature collaborative ventures to dominate the revenue generation for every CELL.

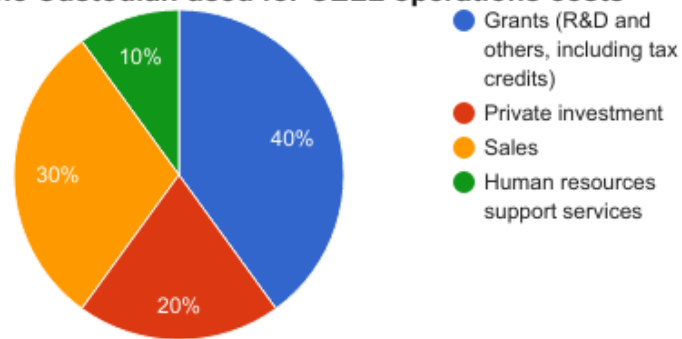
The main assumptions are that after 5 years, every CELL will have more projects in

development than Sensorica, and thus be able to attract more innovation grants and private investment. The aim is to have more mature projects generating revenue for the entire ecosystem.

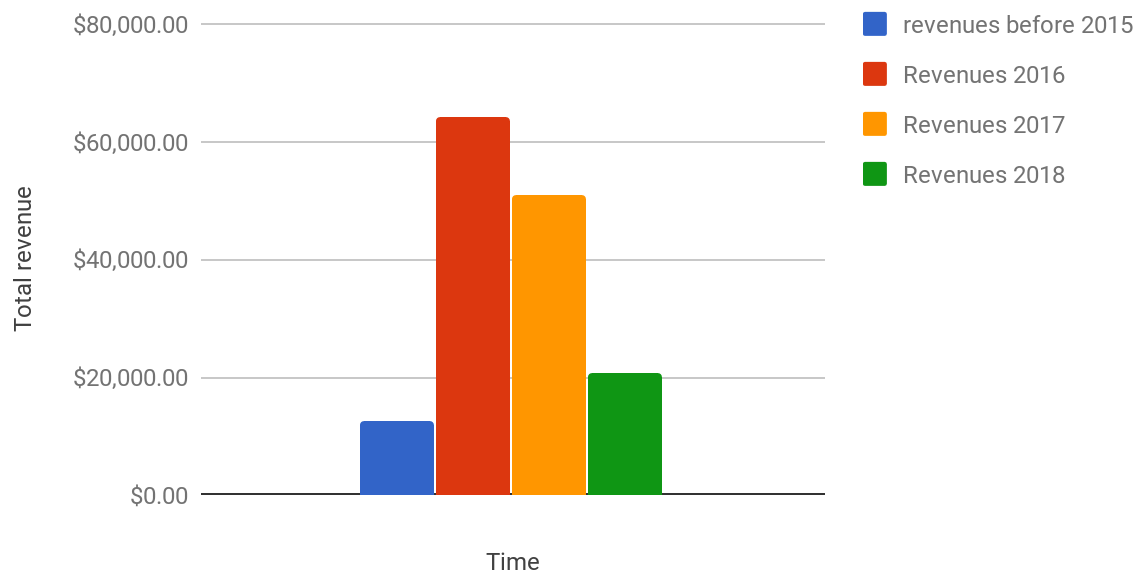
New sources of revenue

 Consultancy	Using its OVN model, Sensorica has demonstrated how freelancers who gravitate around a CELL can assemble into teams and deliver complex consultancy services. These services have become the most important source of revenue for the Sensorica Montreal lab. Most of the revenue goes to those who provide the service and a percentage (5% is practiced within the Sensorica network) is transferred for the CELL's infrastructure maintenance and development.
 Human resource support	CELLs are magnets for creative and talented individuals. Moreover, these spaces also harbour cutting edge technologies such as 3D printing, personal drones, IoT and Blockchain. People who operate within these spaces acquire new skills and work experience, gain reputation, and build professional relationships, making them more employable. Sensorica is again pioneering this practice, prototyping relations with external organizations in need of talent. Organizations who will acquire talent from the LEVOICE network will pay finding and matchmaking service fees. Sensorica has also engaged employment agencies who can play the role of an intermediary between the LEVOICE network and traditional organisations in need of new talent.
 Spinoff social collaborative ventures	According to Sensorica's OVN model, all new collaborative ventures that originate within the network and are economically dependent on the network, using the network's infrastructure, pay 5% of their revenue to the network's Custodian, to be used for network services and support roles, as well as for the network's infrastructure maintenance and development.

Prediction of revenue from collaborative commercial activity generated per CELL per year, a total of \$180,500 for the Custodian used for CELL operations costs



SENSORICA's revenues from collaborative commercial activity (consulting services)



Conclusion

“We act as though comfort and luxury were the chief requirements of life, when all that we need to make us happy is something to be enthusiastic about.” - Albert Einstein

After almost one decade in operation, Sensorica has demonstrated relevance, resilience, and sustained interest in innovation and economic development. It warrants the recognition and support of Provincial, Federal and Municipal governments working in partnership to grow communities and foster economic opportunity for their citizens.

NOICE is a new approach to innovation and economic development, starting with the Sensorica model and experience developed within a Canadian context, in Montreal, Quebec, and leveraging its national and international network. Moreover, Sensorica has developed recipes to link open innovation networks with traditional organisations from the private and the public sector, across multiple disciplines.

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We are firm in our belief that the Strategy will likely fail to reach its objectives if it is not implemented with a genuinely integrated approach. Our first set of recommendations focus on the governance and public service infrastructure required to facilitate a horizontal approach across the federal government. If they are to succeed, the measures we recommend must be designed and implemented with the following principles in mind.

- **Recognition:** Social purpose organizations are important contributors to both the economy and the health and well-being of Canadians. Recommendations also recognize the efforts that regions, provinces and territories have already undertaken to advance social innovation and social finance.
- **Complementarity:** Recommendations respect and build on existing knowledge and efforts of the regions, provinces and territories as well as communities.
- **Subsidiarity:** Decisions are best made by the competent authority that is closest to the issue, whether that be at the local, regional, or national level.
- **Evidence-based:** Recommendations are informed by data and the best available evaluation results and research.
- **Action-oriented:** Recommendations embrace smart risk-taking across all sectors.
- **Co-developed:** The Government engages and co-creates with those who are most affected by a recommendation.
- **Cross-sectoral:** A "big tent" approach that requires the charitable and non-profit, co-operative and mutual, private, and public sectors to collaborate across silos and focus on outcomes. No one sector can achieve these transformational outcomes on its own.

ESDC, 2018: *Inclusive innovation: New ideas and new partnerships for stronger communities*

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Sensorica's experience and model are very well documented and publicly available, which constitutes a solid base from which LEVOICE can start, and a baseline to evaluate the project's future impact.

The government finds in Sensorica a trustworthy organisation with a great background and international reputation, which can be engaged to bring innovation into the new digital age. Indeed, the Open Value Network model may exemplify new approaches that simplify and streamline government innovation and social development program delivery.

NOICE is far-reaching and inclusive. To maximize impact across regions and sectors, we propose a different approach to a "*big tent*". We build "*connective tissue*" that can serve as a matrix for current and future innovation and economic development actors to come together, to mutualize resources and processes, to co-develop new potential.

For a decade, Sensorica and countless other sister network organisations have developed the Forth Sector, a participatory approach to innovation and economic development, under the radar of the Government, which has focused mostly on public and private offerings.

Due to its undeniable results, the Fourth Sector cannot be ignored anymore. It needs to be recognized, legitimized and encouraged to develop. This is a great opportunity for the Government of Canada to invest and leverage its best for a better and more inclusive future.