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**Social Innovation Ecosystems, Sustainability and Democratic
Experimentation: a study in Florianópolis**

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Abstract

The socio-environmental crisis and the complexity of urban problems highlight the importance to better understand the emergence and configuration of social innovation ecosystems (SIEs) and their consequences in cities. SIEs could enable or hinder social innovation and contribute (or not) to reinforce the resilience of the cities. This article proposes a theoretical-methodological approach, with pragmatic inspiration, and presents some results of its empirical application in the mapping and analysis of the EIS in the city of Florianópolis, Brazil. The study was put in practice through the creation and implementation of a collaborative digital platform. In addition to better understand the dynamics of SIEs, the purpose is to analyse the configuration, scope and limits of the SIE to reinforce processes of democratic experimentation and to strengthen the sustainability in cities, especially in countries of the South, where these studies are yet scarce.

1. INTRODUCTION

Cities and urban areas are conceived as critical spaces for global sustainability as they house a large part of the planet's population, which includes 863 million people below the poverty line. In addition, they account for 75% of the carbon emissions (Acuto, Parnell, and Seto, 2018) and meet numerous problems, such as lack of urban mobility, waste generation, inequality, lack of security, criminality, among others.

Throughout the world there is an appeal to deep the knowledge relating social innovation and cities, combining the findings of scientific research with practices to reinforce public policies. The recent literature shows an increasing interest linking social innovation and the cities. Diversity of urban ecosystems services (McPhearson et al, 2015); co-production of social innovation as source of resilience in cities and vectors to develop “smart cities” (Mehmood, 2016; Castelnovo, Misuraca and Savoldelli, 2016); design thinking and new technologies applied to solve social problems (Gutierrez et al, 2016; Vechakul; Shrimali and Shandu, 2015); networked and collaborative governance (Tosun and Schoenefeld, 2017) and use of digital platforms (Gutierrez et al, 2016) are some of the main topics in the actual scientific debate that shows the importance of the multiples social innovations experimentations to co-create more sustainable cities.

Despite this consensus, authors like Calzada and Cobo (2015), Castelnovo, Misuraka and Savoldelli (2016) and Kaika (2017) point some important critiques to the “smart cities” approach showing that it remains technological determined and path dependent on old methodological tools, techno-managerial solutions and normative frameworks. In fact, the majority of the studies focuses on the structural configuration of the urban systems or urban sectors. Only few of them try to understand the interactions between the actors that forms the Social Innovations Ecosystems (SIEs), their particularities and real consequences on the territory.

This is the main objective of this study that started from the assumption that SIEs are social networks that could be sources of collective intelligence and creativity and contribute to solve urban problems, to create new paths of development and to reinforce democracy in cities. SIEs are formed by associations between multiple actors, institutions and artifacts from different

sectors turned to solve problematic situations in “public arenas” in the city. The public arenas are interpreted as public spaces, beyond institutional, technical and legal devices, where multiple actors (from civil society, market, government, Universities) perform public actions (Cefai, 2002).

In this terms, study social innovation implies to focus in the process of co-definition and co-dominium of problematic situations, observing the “day-to-day politics” of the different collectives mobilized around the city’s challenges and their consequences (Andion et al, 2017, Moraes and Andion, 2018). The SIEs cartography became a strategy to observe how different publics engage, interpret, discuss, publicize and promote solutions to public problems they face, through processes of “public inquiry” (Cefai, 2014) in these multiple public arenas.

So, to observe the practices of the actors that configure and reconfigure these ecosystems (as agents of support or promoters of social innovation) and their role in the city’s governance is essential to understand the dynamics of the diverse public arenas in the city. To do so, we co-construct in a partnership between the researchers and some of the main actors of the SIE of Florianópolis a digital and collaborative platform named *Observatório de Inovação Social de Florianópolis* (OBISF) (www.observafloripa.com.br) that was launched in 2017.

This text presents the theoretical approach and methodological framework to mapping and analyze the SIE of Florianópolis city and to co-construct the OBISF and discuss the preliminary results of its empirical application. Florianópolis is recognized in Brazil as “laboratory of social innovation” because brings together different groups, organizations and institutions that have been promoting initiatives to respond to public problems. The research permits to map and understand how these initiatives are interacting and to what extent this network drives or hinders social innovation and produce social change in the urban context.

2. EXPLORING THE DEBATE ON SOCIAL INNOVATION ECOSYSTEMS

The link between social innovation and territories gains force in the beginning of 2000 with some studies that put lights in the limitation of the territorial approaches on innovation applied to study of social problems. As pointed by Moulaert and Sekia (2003) the notion of “territorial innovations” applied to understand social innovations cause conceptual imprecisions. In this debate innovations are interpreted as determined by technologies and driven by market, what is not always the case in the public sphere.

In their seminal article “Social Innovation and Governance in the European Cities” Moulaert et al. (2007) launches the ground of a debate that expands a lot in the last decade and focuses in the interface between social innovation, cities and urban problems. A systematic research¹ in the web of sciences permitted to access to 62 articles that show the relevance of the experimentations in terms of social innovation to build cities more safe, resilient, sustainable and inclusive (Kaika, 2017). Today as shows by Alijani et al. (2017: 295) there is a consensus in the OECD and European countries about the fact that “social innovation trajectory and

¹ Sistematic review in the Web of Science made in 21/04/2018 wit the terms “social innovation” and “cities” from 2015 to 2019.

dynamics are affected by the institutional contexts as well as discourses and policies at the micro, meso, and macro level” and that this dynamics could be vector to expand the resilient capacity of cities.

Despite this agreement, even in the countries of the global North, only few studies focus in understand, in a non-normative and empirical perspective, the configuration and practices on Social Innovation Ecosystems (SIEs) (Howaldt et al., 2018). In fact, studies on SIEs are scarce and still lacks a deeper theorization. As discussed by Lévesque (2016) this debate has its origin related to the researches on the innovation systems that have developed mainly in the fields of management and economy since the 1960s. The first studies have their inspiration mainly on business ecosystems (BEs) (Moore, 1993) or on entrepreneurial ecosystems (EEs) (Isenberg, 2011), following a “Schumpeterian” tradition.

The studies on EEs make improvements in comparison to the studies on the traditional concept of BEs. The EEs studies consider that the dynamics of innovation and entrepreneurship can be influenced by a series of interconnected factors, not only economic and technological, of which the cultural/institutional context and the support networks (financial, human capital, infrastructure, among others) are key components. The entrepreneur don't act alone and his agency and also the structure are important factors to take in account.

However, the application of the entrepreneurial approach in the domain of social innovation is still insufficient. In this perspective, SIEs are interpreted in many studies as support networks and a set of environmental conditions that foster social entrepreneurship (Cameron, 2012; Ariza-Montes and Moniz, 2013; Bouges, 2015; Biggeri, Testi and Belluci, 2017). The role of the social entrepreneur is here considered crucial and the centrality of social business in the composition of SIEs is emphasized. There is a clear dialogue with studies on EEs using normative (with pre-established categories) and universal exploratory models. These approach leads to a tautological reasoning that little help to understand the real composition, scope and limits of SIEs as pointed by Stam (2015).

More recently some authors - like Calzada and Cobo, (2015), Kaletka, Markmann and Pelka (2016), Lévesque (2016), Alijani et al. (2016); Hodson; Geels; McMeekin (2017); Kaika (2017), Howaldt e al. (2018) - joint the initial criticism put forward by Moulaert and Sekia (2003). They report the path dependence of the studies about EIS and social innovation in the cities on a logic of quasi-experiment that puts emphasis in metrics, techno-managerial solution and are market centered. In this way, they point some limits of these studies as: (1) focusing mainly on the offers of the ecosystems (i.e. support institutions), (2) leaving aside the relationship of the SIEs with the demands (i.e. the public problems or social needs on which the actors of SIEs aim to promote impact); (3) emphasizing the role of one sector (like civil society or social business) in the promotion of social innovation; (4) assuming a technological determinism; (5) proposing universal models that can be applied in countries, regions, cities, sectors and companies, without considering the territorial inscription of SIEs. In this sense, the authors call attention to the need for less normative frameworks that avoid the trap of establishing standard solutions or tautological models to explain social innovation and its consequences and that considers the multiplicity of experiences in terms of social innovation, giving importance to empirical studies.

In order to advance in this debate and overcome some of these limits we focus here on “social practices” in the EIS of Florianópolis. Our goal is to start from a non-normative approach to consider the particularities of the dynamics of “democratic experimentations” (Ansell, 2012; Ansell and Bartenberger, 2016) in cities in a developing country, whose experiences are so little studied in the literature. For this, we are based on a pragmatist approach that will be explored briefly below.

3. A PRAGMATIC LOOK AT THE SOCIAL INNOVATION ECOSYSTEMS

This study is based on a pragmatist view of the social innovation processes, connecting them to the dynamics of social change promoted by the mobilization and participation of different collectives in the solution of public problems in practice fields (Cefai and Terzi, 2012; Ansell, 2012; Andion et al, 2017; Howaldt, 2018). It means to understand to what extent and in what way the ordinary actors that make up the sociotechnical network of Florianópolis EIS interpret, mobilize, and react to the city's public problems, and in so doing, co-produce social innovations and public policies. It is particularly interesting to understand the emergence, diffusion and effects of open social innovations, understood as autonomous and indeterminate social dynamics of “coping with problematic situations” in the city's public arenas.

In this sense, the authors emphasize the importance of looking at the city as a space of multiple “experimentations”, “regimes-configurations” or “public arenas” (Cefai, 2002) in which is possible to build new futures. As highlighted by Chateauraynaud (2011), public arenas can be seen as “political laboratories” formed by individual, organizational and institutional actors who commit themselves to a collective effort to identify and manage public problems. Therefore, it is not a place of consensus, but a patchwork of ways to judge, to see the world and to act upon it. In public arenas, ordinary actors construct day by day living labs of “democratic experimentation”, in which “design experiments” and collective learning about the fields of public policy could be co-constructed (Ansell, 2012, Howaldt, 2018).

As already developed by Andion et al (2017), Moraes e Andion (2018) and Gonsalves e Andion (2019) – from a dialogue with some of the lines of thought of the pragmatic sociology, particularly the Actor-Network Theory (Callon and Latour, 1981; Law, 1999; Latour 1994, 1998, 2012, 2014) and the Sociology of Public Problems (Cefai, 2002, 2009, 2014, 2017; Chateauraynaud, 2011; Chateauraynaud and Debaz, 2017; Cefai and Terzi, 2012; Quéré and Terzi, 2015) – the OBISF was put in practice based in four assumptions summarized bellow.

Assumption 1: *Social innovation ecosystems are embedded in a long history of framing public problems in specific territories (presenting an insertion in time and space).* Thus, it is crucial to consider the social and historical background as well as the institutional and territorial context of the SIEs. In addition, the demands or public problems of the territory must be taken into consideration because they are collective and historically built (macro scale).

Assumption 2: *The social innovation dynamics are processes of change (incremental or deeper changes) that produce outcomes and that emerge from associations made among multiple human and/or non-human actors (individuals, collectives, organizations, institutions, technology, methodology, etc.) in public arenas.* Therefore, the SIEs are formed from a reticular network of interconnections present in the public sphere. It is crucial to understand those interactions and their features in time and space (meso scale).

Assumption 3: *Social innovation dynamics emerge in fields of experiences in which different publics are engaged in the solution of problems and in processes of “public inquiry” (Dewey, 1927, 1938).* In this sense, the analysis of SIE must go beyond a reticular or macrostructural perspective and seek to follow the situations experienced within the public problems. This means to observe closely the processes of justification and criticism produced by the actors themselves and the consequences resulting from these processes. This assumption refers to the condition each of the “publics” present to deal with problems: identifying, interpreting, learning and proposing solutions (micro scale).

Assumption 4: *In order to analyze the impact and the consequences of the social innovation dynamics, it is necessary to reconnect the dynamics to the wider processes of social change, relating the macro, meso and micro dimensions.* In this sense, it is important to observe practices, because they reconcile creative acting with social regularity and considers the multiple paths of emergence of collectives and the long processes through which the ‘establishment’ comes to change. The practice seeks to connect, in a systematic way, the observation of the specific situations to the more general considerations regarding the macro-social configurations.

4. METHODOLOGY AND MOMENTS OF ITS APPLICATION IN THE CO-CONSTRUCTION OF A DIGITAL AND COLLABORATIVE PLATFORM

Based on the assumptions described previously, we co-constructed the Observatory of Social Innovation of Florianópolis (OBISF) (www.observafloripa.com.br) that consists in a digital and collaborative platform that allows to know, follow and analyze the EIS of the City. In the platform implementation we consider: (1) A multi-scale and multidisciplinary perspective, understanding the SIE as a nexus of practices involving multiple sectors and various public policy fields and public arenas; (2) A longitudinal and socio-spatial analysis, through the georeferencing and longitudinal monitoring of different initiatives in the city; (3) A collaborative and experiential learning approach, creating spaces to co-construct knowledge with the actors surveyed.

Considering these preliminary aspects, the analytical and methodological framework adopted in our research project is structured in four main moments, which are not being developed in a linear way. The four moments are summarized in Figure 1 and described below.

4.1 Territorial and institutional exploration

This first analysis starts with an examination of the institutional context (laws, regulations, policies and public programs) that support social innovation in the city, by documental and content analysis. In addition to legal provisions, we look at the territorial dimension and history of the SIE, including the emergence and development of the SIE, as well as its territorial dynamics, with an emphasis on identifying the main public problems of the city.

With the preliminary information the institutional context and the understanding of the formation and development of the EIS, we provide a panorama of what we call a macro scale that was considered for analysis along with the meso and micro scales.

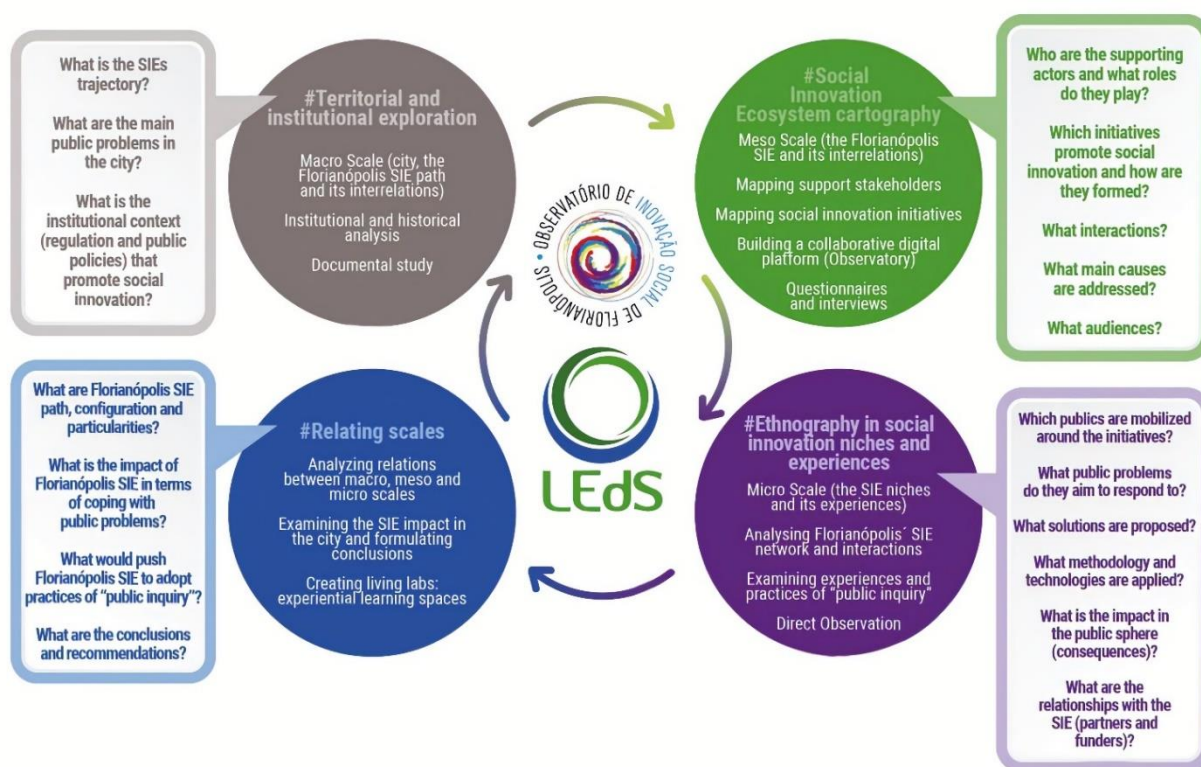


Figure 1: Analytical and Methodological Framework

Source: <http://www.observafloripa.com.br/is-page//methodology>, 2019

4.2 Social Innovation Ecosystem cartography

This stage begins in april 2016 with interviews next to the main actors supporting social innovation in the city. For this we apply questionnaires (see Appendix 1) that were incorporated after in the digital platform to collect some information: (1) contact; (2) scale of operation; (2) function and activities in the EIS; (3) social initiatives supported and (4) partnership with others support actors. Following the snowball technique, we expanded the sample to 115 support actors and with this first information, the conception and implementation of the platform started.

The OBISF team collect first free access information about the social innovation initiatives indicated, including legal format, causes they work with, key audiences and contact information for georeferencing. In the sequence the social innovation initiatives first mapped were observed (by on-site visits with questionnaire application) to understand their mobilization around the public problems, the solutions they propose, how they measure their results, who is engaged with the actions, which methodologies and technologies they use, if they influence the public sphere and their partners, supporters and funders. All the questions are related in Appendix 2.

In this process, more than 10 “network-actors” were identified as main articulators in the fields of social entrepreneurship, government, academic (Universities), and civil society. These actors were invited to become partners of the OBISF and helped to identify new social innovation initiatives supported by them in the ecosystem, increasing the sample of observed initiatives. The involvement of the main actors of the ecosystem as partner of the OBISF was important also to validate the data, legitimate the project and co-create the platform.

From then on, the network grew and, with the launch of the OBISF in September of 2017, the questionnaires could be completed online. In this way, a georeferenced map of the support actors and the interrelationships between them and social innovation initiatives was built. All this information about social innovation initiatives and support actors became part of the map, as well as its interrelations. It shapes a mesoscale of analysis that composes the online and free access platform of the Observatory (Figure 2).

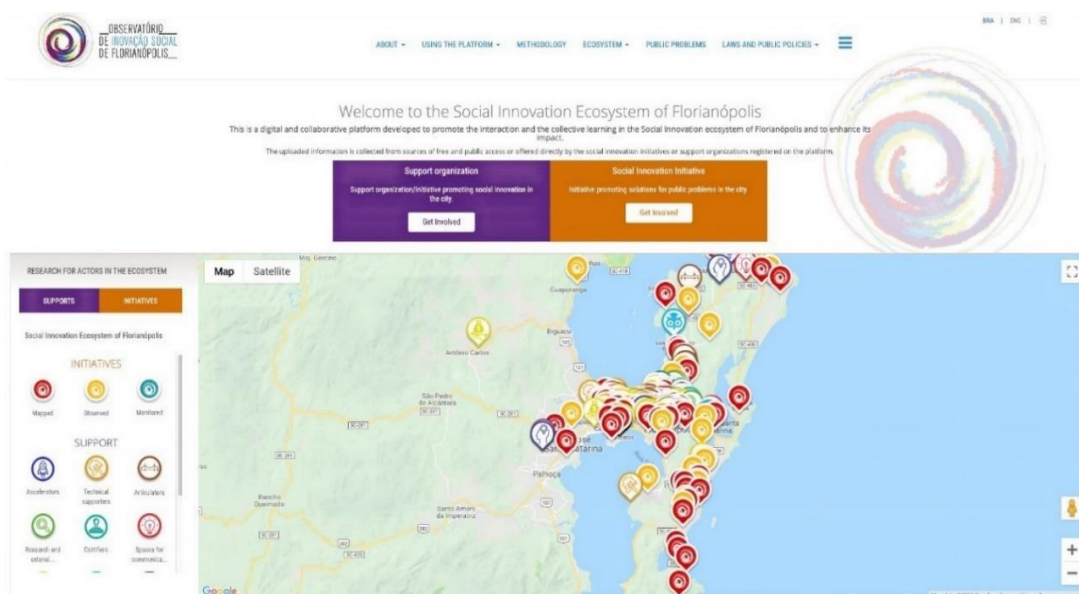


Figure 2: Home of the online platform

Source: <http://www.observafloripa.com.br/is-home?language=us>, 2019.

Today (juin 2019) the OBISF counts with 220 support actors and 293 social innovation initiatives mapped. Among the latter, 101 were observed. The number of social innovation initiatives observed has grown considerably thanks to the involvement of undergraduate students who have been involved in the disciplines with the project, carrying out fieldwork and putting into practice actions to reinforce the initiatives. This involvement make possible to integrate research and teaching and has been increasing the commitment of the university community with the OBISF.

4.3 Ethnography in public arenas

In order to follow the “fields of experience” of the Florianópolis social innovation initiatives, we are undertaking fieldwork with an ethnographic approach to study some specific public arenas. These public arenas are chosen because of their importance in the ecosystem either by the number of social innovation initiatives or by their strategic significance in terms of dynamics reinforcing democracy and sustainability.

From the previous cartography and based on the observation of the social innovation initiatives some relevant “democratic experiments” (Ansell, 2012) in the public arenas have been identified. These experiences are been followed by systematic observation (and in some cases by ethnography) made by postgraduation students in some public arenas: (1) the network that acts in the guarantee of children and adolescents rights; (2) the urban solid waste treatment network; (3) the municipal public policy forum; and (4) the articulation around urban agriculture.

In this way, we could observe the “fields of experience” of the public arenas analysed and not just isolated initiatives. So, along with the platform, a kind of “living lab” was co-constructed to follow and facilitate “public inquiry” (Dewey 1927, 1938) processes in the public arenas studied. The Laboratory for Education in Sustainability and Social Innovation (LEDS) aims to be a collaborative space for the co-construction of knowledge, promoting the interaction between the knowledge produced in the University and in the communities of practices studied.

4.4. Relating macro, meso and micro scales

The purpose of the research is to promote a multi-scale and longitudinal reading of the SIE of Florianópolis, relating its historical, territorial and institutional dimensions (macro scale), with an analysis of its network, forms of cooperation and interaction (mesoscale), and also the actors’ practices (microscale) and its consequences in the public sphere. It means to observe in loco how SIE is formed in the interface between the already established institutions and the creative potential of the different actors.

5. RESULTS AND DISCUSSION

In this session we present the preliminary results obtained in the research involving the steps described above: the territorial and institutional exploration of the SIEs, the cartography of the SIEs and the close observation of the social innovation initiatives. It makes possible to describe the EIS configuration and characterize it, to understand the favorable and unfavorable conditions to foster social innovation in the city.

5.1 Territorial and institutional exploration – macro scale

Florianópolis is the capital of the state of Santa Catarina, located in the region South of Brazil, as can be seen in Figure 4 below. The city has the largest part of its territory (97.23%) located on an island, about 54 km long and 18 km wide. According to estimation from IBGE the population of Florianópolis is composed of 492,977 inhabitants in 2019, having a population density of 929 inhabitants per km². In the months of December to February this population doubles as a result of the intense tourist activity in the city.

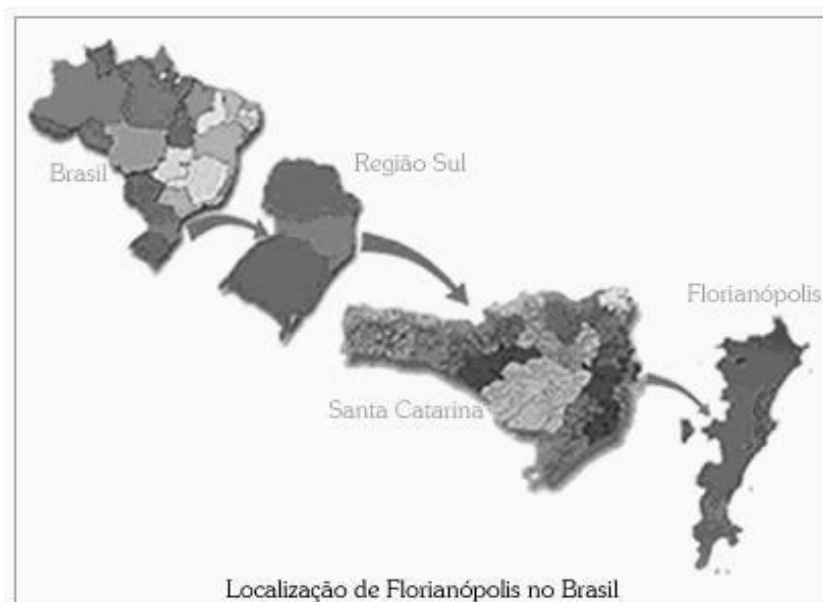


Figure 4: Florianópolis location at Brasil

Source: google

The economy of Florianópolis is predominantly focused on the public sector (since it is the administrative capital of the state), and services with a main focus on tourism and technology-based companies. It is also important the role of artisanal fishing, which employs more than 3,000 families, in addition to mariculture, involving the production of shrimp and oysters. Due to the characteristics of the territory, the island does not have installed industries. The industrial activity of the region is located in the continent, especially in the neighboring municipalities of

Palhoça and São José. The city counts with various public Universities like Santa Catarina Federal University, Federal Institute of Santa Catarina and Santa Catarina State University, besides other private universities,

In the last two decades, through cooperation between federal, state and local government, the reinforcement of the Information and Communication Technology (ICT) industry in the city was accelerated, especially through the installation of three Technological Parks: Tec Alpha in the neighborhood of João Paulo, the Sapiens in the North of the Island and the ParqTec ACATE in Santo Antão de Lisboa. All these parks link actions between the ICT sector in Santa Catarina, teaching and research centers and funding agencies. The city has about 600 software, hardware and technology services companies, which generate approximately 5,000 direct jobs and revenues of around R \$ 1 billion per year with growth of 15%. (PMF, 2017).

Legal devices were also instituted in the last decades. In January 2008, Law 14,328 was approved to provide incentives for scientific and technological research and innovation in the productive environment of the State of Santa Catarina. In 2009, the Santa Catarina policy of science, technology and innovation was instituted. In 2012, the complementary law 432/2012 was regulated in municipal level, with the purpose of fomenting the technological and innovative activity, aiming at the sustainable development of the municipality of Florianópolis. In 2017 – resulted from the articulation of actors such as ACATE, Certi Foundation, Endeavor and Union of Informatics Companies of Florianópolis (SEINFLO) – the Decree 17,097 was signed, regulating the Municipal Innovation System, including different devices: the Municipal Innovation Fund, the Innovation Incentive Program, the Innovation Promotion Network and the Municipal Executive Innovation Plan.

As a result of this trajectory, Florianópolis is now positioned as the national capital of innovation. With this in mind, in 2009 was created the Municipal Secretariat of Science Technology and Sustainable Economic Development and in 2010 was launched the Capital of Innovation campaign, representing Florianópolis as a storehouse of innovative initiatives.

Although the new municipal regulation and campaign are important institutional advances, they refer mainly to technological, productive and scientific innovation (focusing on the technical and economic dimensions) and do not make reference to social innovation. In fact, there are few incentives, both in terms of regulation and policies and programs, to foster social innovation in the municipality and in the state. This finding was evident in this research when analyzing the content of laws, policies and programs to support and incentive social innovation at the municipal, state and federal levels². Contrary to the developed countries (Howaldt et al, 2018), in Brazil, as well as in other Latin American countries, the regulatory framework and incentive mechanisms still do not highlight the importance of social innovation.

² This mapping was carried out from the search of the official sites that make this information available from February to May 2017. The exact terms "social innovation" and "innovation" as regards the Laws were considered as search criteria, plus the terms "sustainability" and "sustainable" in terms of policies and programs. The complete mapping is available on the www.observafloripa.com.br platform.

The analysis of the institutional inscription and the history of the EIS of Florianópolis allows to affirm that - although there are only few institutional devices supporting social innovation - there are evidences of the formation of a diverse network of actors of distinct segments that are mobilized and act to promote social innovation. Faced with this, some questions arise: *How is this EIS configured? What kind of actors make it up? What are the relationships between these actors? What answers are built to address the public problems of the city? What are the drivers and obstacles to foster social innovation ?* With regard to these last questions, we also try to understand the main public problems in the city. For this, 11 official reports on city public problems prepared and diffused by the SIEs actors themselves were analyzed. This data was summarized and are diffused in the OBISF platform³. In the next sessions we try to answer these questions.

5.2 Social Innovation Ecosystem cartography – meso scale

This session discusses the configuration of the EIS of Florianópolis, the different groups of actors that form it, its characteristics and interactions analysing the configuration of the EIS and the conditioning factors that facilitate or hinder social innovation and promote or not more resilience in the urban system.

5.2.1 The network of support actors

As mentioned above, through the platform, were mapped until June 2018, 220 support actors and 293 social innovation initiatives in Florianópolis. The proportion of support actors for each initiative is 0.75, denoting that there is a broad network of actors involved in fostering social innovation in the city. Most of the support actors have more than one function in the ecosystem, however, the functions more common are described in the Table.

Table I – Functions of support actors in the Florianópolis EIS

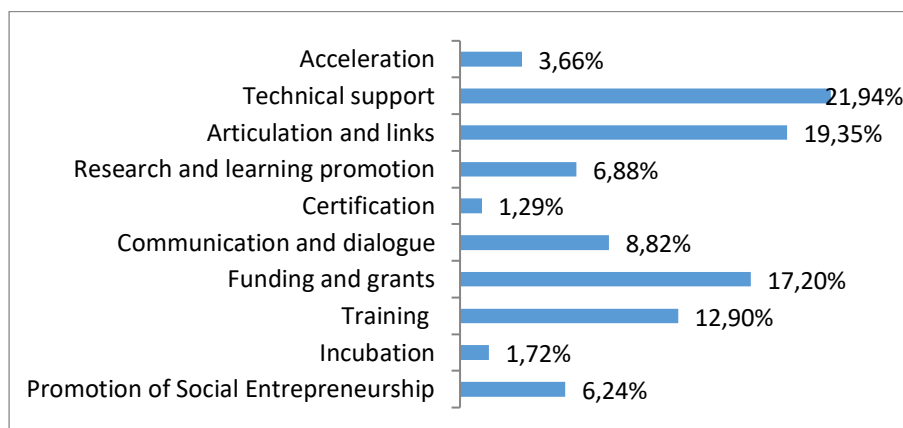
Functions	Main activities in terms of social innovation
Acceleration	Leverage of social innovation initiatives, promotion of scalability
Technical support	Advising, consulting, monitoring and technical support
Articulation and links	Promotion of interaction and partnership between the SIE actors
Research and learning	Co-creation and diffusion of knowledge, research promotion and transfer
Certification	Provides qualification stamps and creates benchmarks

³ A summary of the data available on these public problems can be found at the link <http://www.observafloripa.com.br/is-page/publicProblems>

Communication and dialogue	Promotes communication and interaction between actors
Funding and grants	Provides funds, grants, prizes or other forms of financing
Training	Promotes technical formation
Incubation	Incubate social innovation initiatives
Promotion of social entrepreneurship	Encourages social entrepreneurship and the creation of social businesses

Source: Elaborated by authors based in TEPSIE (2014) and Stam (2015)

There is an imbalance between the different functions that strengthen the SIE. 54% of the responses in the questionnaire refer to the technical support, articulation and training. Based on Mason and Brown (2014) it is possible to affirm a greater concentration in offering support services in the stage of development of the initiatives or to individuals. However, the provision of support services to the initiatives already implemented (organizations) is scarcer. In this case, the small number of accelerators, incubators or even funders stands out.



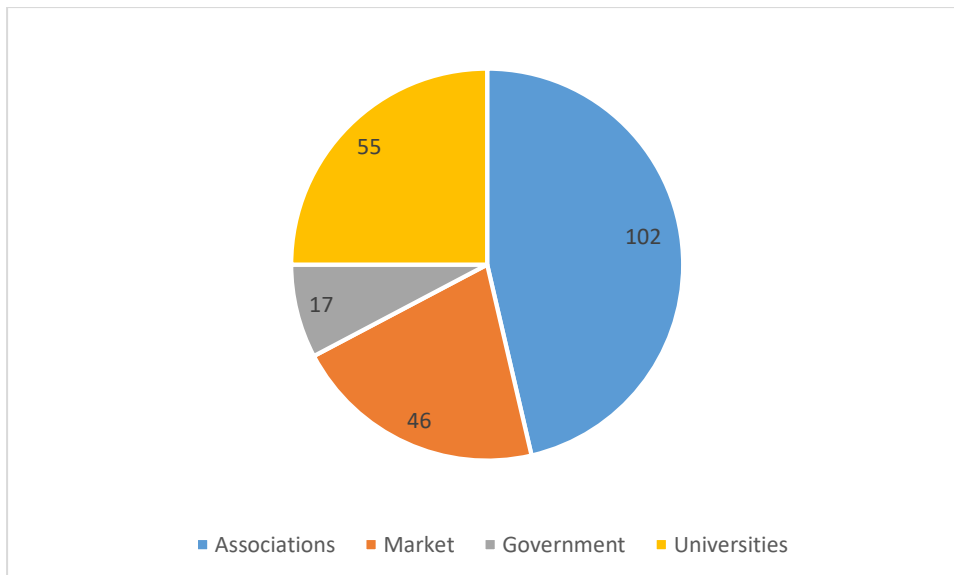
Graph 1: Roles performed by the support actors

Source: elaborated by authors

But when we observe the beneficiaries of this support network we can see some balance. The majority of support actors mapped 116 (53%) claim to support non-profit civil society organizations (associations, foundations, cooperatives and social movements). The other 47% sustain social business and/or entrepreneurs. In terms of financing we observe the same balance between the different sectors. 44 support actors affirm to act like funders. Between them 14% are from market, 14% nonprofits and 16% from government. But the forms of financing are conventional in majority by non-return monetary resources. Crowdfunding, venture capital and others forms are more rare.

Howaldt et al (2016) emphasize the interaction between government, civil society, universities and the market as an important strengthening factor for SIEs. In Florianopolis 46% of the

support actors came from the nonprofit and associative field. 25% have their origin in the private sector. Only 21% are from government and 8% from Universities (Graph 2). The majority (65%) of the support actors act in local and regional scale. Only 18% are national and 17% are international. In this sense the support of the EIS is local based.



Graph 2: Support Actors by origin

Source: Elaborated by authors

These results permit to conclude that the environment of support for social innovation in Florianopolis emerge more from bottom up dynamics - as the regulation and the policies of incentives discussed before - having their origin linked to the main actors of the ecosystem itself rather than public institutional arrangements promoted by government. The performance of Universities seems also to be weakly in the social innovation support network of the city. In this sense, it should be noted that the network support in the EIS is more a spontaneous phenomena that still require greater institutionalization, which may compromise their long-term sustainability.

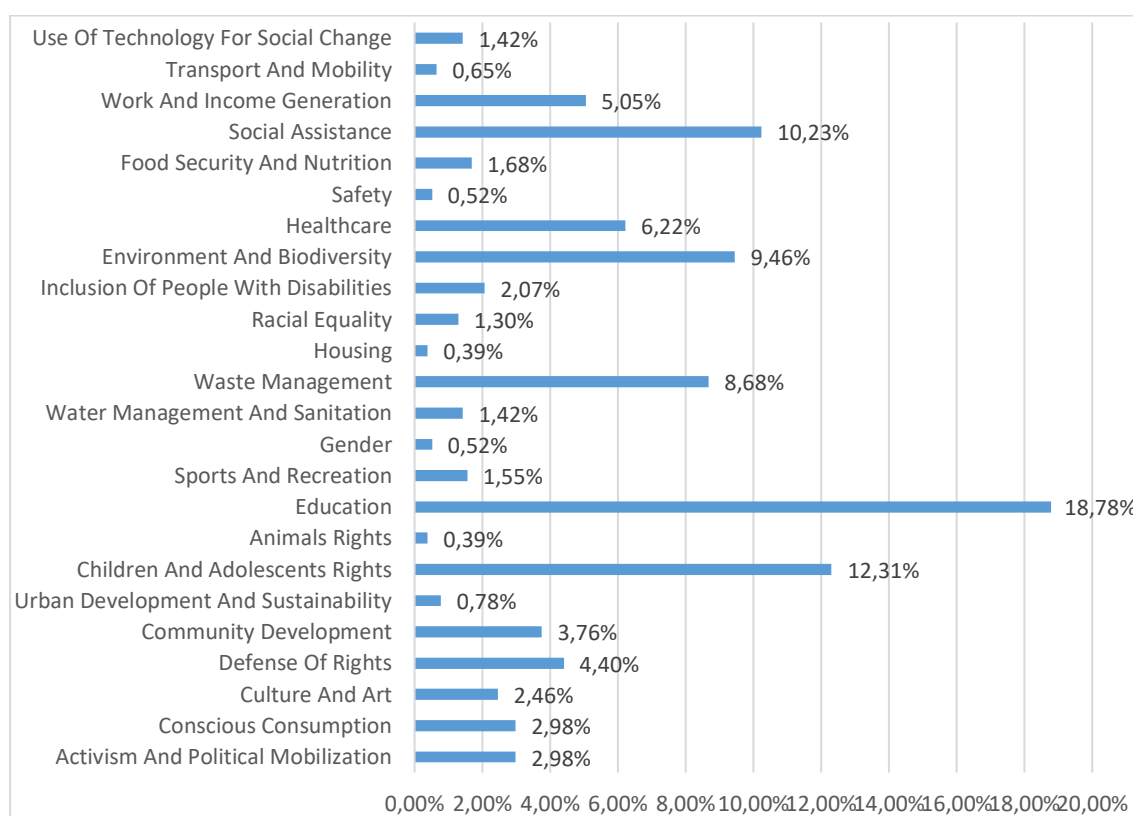
5.2.2 The social innovation initiatives mapped

If we take a look in the 293 social innovations initiatives mapped some results call attention. First, it can be observed a great dispersion in terms of causes (Graph 3). They cite in the questionnaires 24 types of different causes with which they work.

But when we observe the most cited causes some of them are prominent like: (1) education; (2) children and adolescents rights; (3) social assistance. If we add these ones with other areas mentioned related to social security, such as healthcare, culture, arts, sports and recreation we see that they form the main majority (52%) of the causes cited. But other groups of causes

appear as relevant like those linked with environment and sustainability (23%), community and urban development (12%) and advocacy and defense of rights (11%).

By comparing these data with the information gathered in 11 official reports on the city's public problems, it can be seen that many of the public problems with which the initiatives operate (such as the inclusion of people with disabilities, gender and racial equality or food security and nutrition) are not publicized and have few or no official data. In this sense, a better understanding of the dynamics and systematisation of the knowledge co-produced in these public arenas become essential.

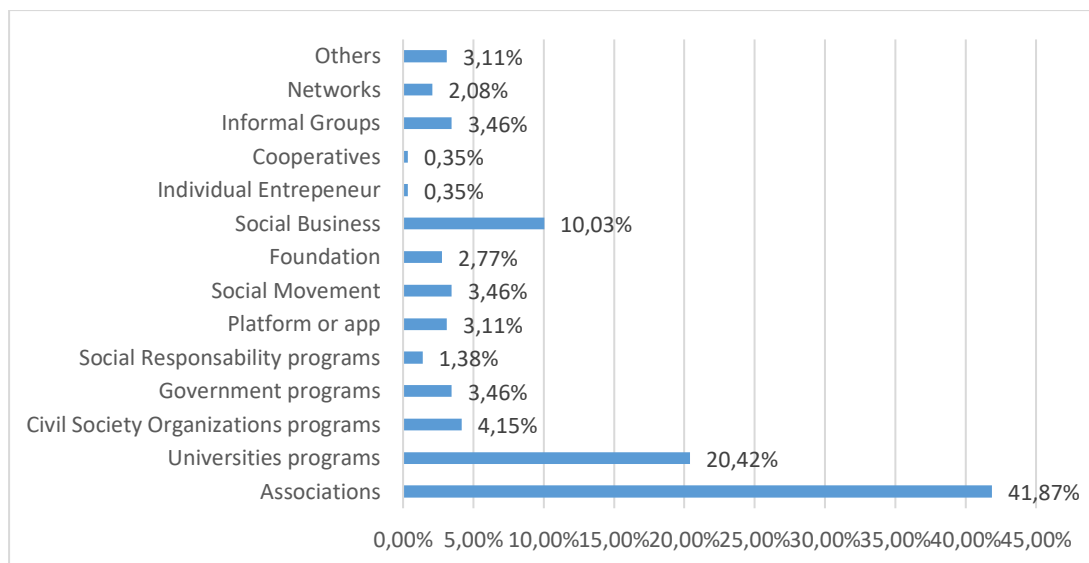


Graph 3: Causes worked by social innovation initiatives mapped

Source: Elaborated by authors

This results shows that the EIS is configured around the fields of public policy (Howaldt, 2018) that are important in each territory. In the case studied the network of social innovation initiatives mobilizes around the most urgent issues of the city, working with the most excluded publics. About the target audiences, the majority of initiatives affirm to work with children, teenagers, families and communities.

Regarding to the origin of the initiatives (Graph 4) it is noticed that the majority derives from civil society (58%), 10,03% are characterized as social business and 20,42% are developed by Universities. Only 3,46% of the initiatives mapped came from government. Here we can confirm the fragile incidence of government in the EIS.



Graph 4: Social Innovation Initiatives mapped by origin

Source: Elaborated by authors

5.2.3 Interaction and governance

Through the links mentioned by the support actors and mapped social innovation initiatives, it was possible to build the network that forms the ecosystem (Figure 5) and to analyze the intensity and diversity of these interactions. As noted by Howaldt et al. (2018), McPhearson et al (2015) and Ansell and Gash (2007), the collaboration between the actors is a central element of a collaborative governance, as well as for the production of collective learning among the actors of the EIS.

The first picture of the EIS Network allowed us to observe a diffused governance, few collaboration between the social innovation initiatives and a clear segmentation in the EIS. In other words, it is perceived a "club" effect where similar initiatives have more interaction with each other. For example, it is easier to see initiatives linked to the "social entrepreneurship" movement establishing partnerships with each other and with the supportive environment that has more affinity with this group, for example, coworking groups, promotion of social entrepreneurship or using Technologies, accelerators and incubators. On the other hand, traditional associativism and social movements are mobilized around public policy councils and articulated through mechanisms linked to the municipality's public policies. In the configuration of the network it is still possible to identify certain actors that represent key roles and act as bridges between these different segments.

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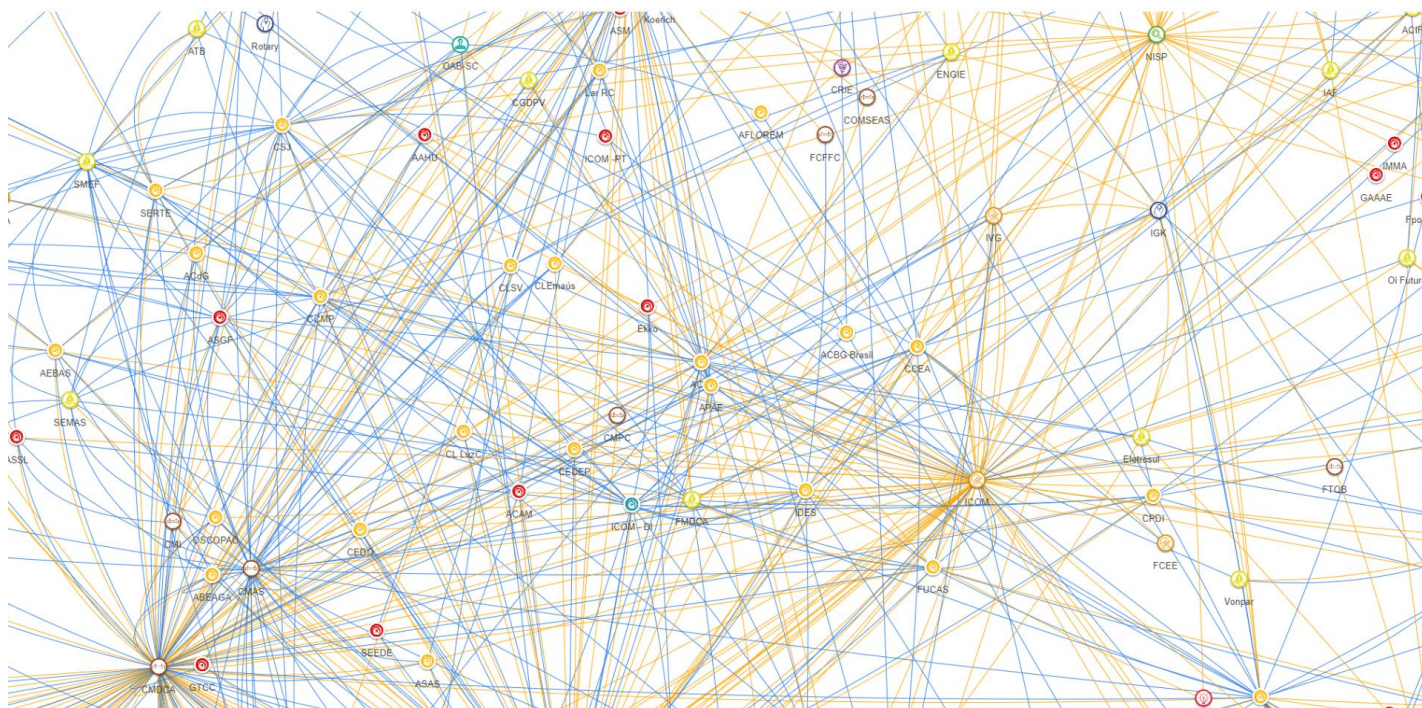















Figure 5: Representation of a part Florianópolis EIS Network
Source: OBISF 2019

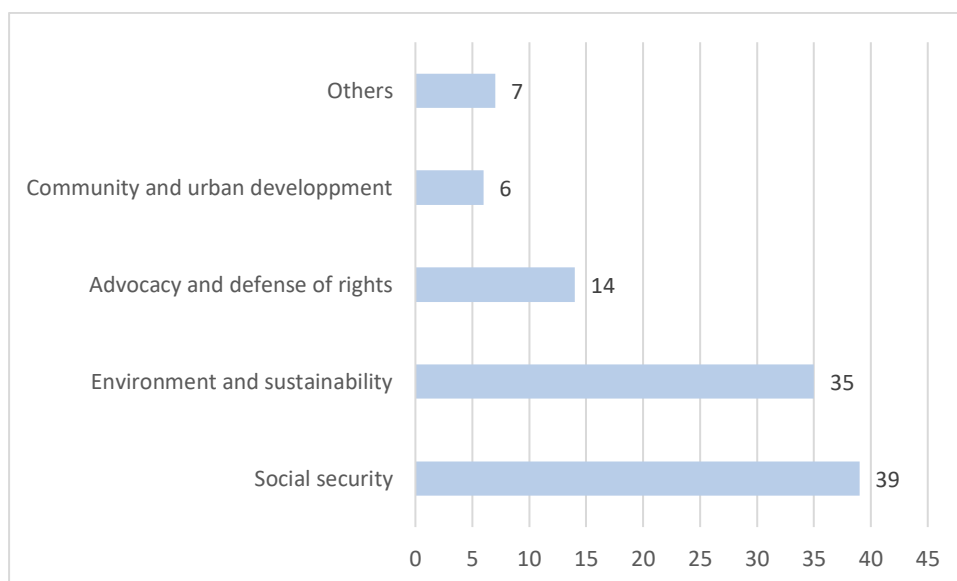
Legend:

Social Innovation Initiaves		Support Actors	
	Mapped		Acceleration
	Observed		Technical Support
	Followed		Articulation
			Research and Larning
			Certification
			Communication
			Funding
			Training and formation
			Incubation
			Promotion of Social Entrepreneurship

5.3 Observation of social innovation initiatives and its incidence in public arenas – micro scale

The observation of 101 cases make possible to identify the “fields of experience” (Cefai, 2014) of these social innovation initiatives and permite to carактерize better their “regimes of action” in the public arenas of the city. Next we explore the main results of our incursion in the practice fields of these initiatives.

The observation made it possible to identify four groups of initiatives distinguished by the problems around which they are mobilized and by the way they respond to these public problems. Inspired in Howaldt (2018) we can distinguish four “policy fields” explained below.



Graph 4: Groupes and policy fields of the social innovation initiatives

Source: Elaborated by authors

The first group comprise 39 cases that work around the policy field of social security, and mobilize around of child and adolescents rights, education, healthcare, culture and art, sport and recreation. As showed before, this group represents the majority of the initiatives of innovation mapped by the OBISF. The origin of many of these initiatives is linked with traditional associative groups related to Churches (evangelical, catholic and spiritist) and community based organizations. They serve a vulnerable public formed mainly by children and adolescents, their families and communities in a situation of socioeconomic exclusion.

Their regime of action, in general, is inscribed in public policies, especially of social assistance, education and healthcare. So the answers they offer to public problems is characterized by being more regular, including public services that must be continued. The incidence in the public arenas in which they act is evident in these cases, both through participation in the formal provisions of the policy (policy councils and terms of collaboration with the City Hall), as well

as by influencing on the agenda setting and making advocacy through the Forum of Public Policy and other spaces of participation

In this sense, far from having an "assistencial" strategy, these initiatives have been important partners of governmental actors in the co-construction of methodologies, devices and processes to improve public policies. Therefore, it is observed that social innovation is not a "novelty" in the city and the formation of the EIS in the municipality has a long history linked to the traditional associativism that must be taken into account.

A second group can be identified around the policy field of environment and sustainability. In these group we identify 35 cases. It is perceived that the public problems that mobilize this initiatives are expanded and diversified, associated with new styles of life, development and their dilemmas including: biodiversity, waste and water management, sanitation, animal rights and conscious consumption. The initiatives become more plural and come from different sectors. The regimes of action are not the same of the first group. The initiatives are more connected nacional and globally and more often use new methodologies and technologies to promote social change. Amongst them there are 11 companies that can be characterized as "social business". These companies seek to solve problems such as mobility, urban waste management, expansion of the supply of organic products, among others. The way in which "social business" affect the public sphere differs from previous group. Most of these initiatives do not participate in the traditional spaces of political articulation of the city and some of them affirm that they do not even have political incidence. But they use social networks massively, make campaigns, events and localized interventions that also produce new forms of political mobilization.

A third group of 14 social inovation initiatives mobilizes to defend specific rights and develop advocacy. It is perceived that the public problem goes beyond protecting the most vulnerable and what assemble these initiatives is related to the expansion of "other possibilities" (Cefai, 2017) in terms of racial and gender equality, inclusion of people with desabilities, activism and political mobilization, for example. In this sense, responses to the public problems built by such initiatives also assume other forms. The generation of specific "social technologies" such as "the active listening methodology" in the Center of Valorization of Life (CVV) or the creation of a social cooperative and a "brand" that aims to promote the insertion of people with disabilities in the labor market, in the case of COEPAD, are some examples. Here social innovations are closer to "invention" revealing the creative potential and "producing new combinations" by the groups studied. Concerning the incidence in the public arenas, it is evident that in addition to participating in forums and public policy councils in their respective areas of activity, the initiatives of this group are characterized by a high degree of mobilization among their publics and their public policy field, through events, campaigns and other forms of collective mobilization.

Finally the less numerous groupe observed are formed by six cases that acts with community and urban developpent working in public arenas linked with transport and mobility, work and income generation, safety, housing, food security, urban agriculture etc. Although this group has not yet been extensively observed, it involves social innovation initiatives with strong and expressive activities in the city, such as the Semear Network and the

Baldinhos Revolution, which seek to foment the urban agriculture network and agroecological production in the city.

In short, this research demonstrates that social innovation is not produced in the same way by these groups. We can see that social innovation is embedded in long trajectories of practices and is deeply rooted in the public arenas in which it is produced. As Howlady (2018: 89) asserts, an innovation is also social to the extent that "it varies socially and socially is accepted and diffused".

6. Final considerations

In this text we start with a dialogue with the recent literature on SIEs and from the discussion of its gaps we propose a theoretical and analytical framework - presented in session 4 and summarized in Figure 2 - of pragmatist inspiration, for cartography and analysis of the network that forms the EIS of the city of Florianópolis.

In terms of methodology the study used as key strategy the co-construction, with the main actors-network of the EIS, of a collaborative online and free access platform (www.observafloripa.com.br). In addition to starting from documental analysis and to collect free access secondary data, through the platform, primary data were collected through questionnaires applied with 220 support actors and 293 social innovation initiatives that were mapped. We did also on-site visits to 101 social initiatives previously mapped which were observed, making it possible to investigate these cases further.

The results obtained and discussed in the previous session allow us to highlight some dimensions and elements of the city's EIS, in relation with the framework used, that were raised in the analysis as significant to reinforce or to hamper social innovation dynamics. These dimensions and categories are summarized in Table II and briefly discussed below.

In the institutional dimension the analysis shows some aspects related to political and legal context that influence the dynamic of EIS. In the case of Florianópolis, as in many cities in developing countries, it is evident the fragility in these "framework conditions" (Tepsi, 2014). Despite the existence of a dense network of actors coming from different sectors it is observed some important obstacles in the institutional dimension: (1) The lack of institutional mechanisms, in legal terms and in public policies and programs, that support and encourage the dynamics of social innovation in the city; (2) The difficulty of finding consolidated information, data and studies on public problems and policy areas that are strong in the EIS but which are poorly publicized in the city context; (3) absence of specific devices that stimulates the culture of social innovation like prizes or public procurement and commissioning for social innovation products and services for example.

Table II – Dimensions and elements that reinforce or hinder social innovation in city context

Scales of analysis	Methodology	Dimensions	Elements that reinforce or hinder social innovation in city context
Macro	Documentary analysis and interviews with key informants	INSTITUTIONAL	<ul style="list-style-type: none"> . Laws and other regulation and support devices for social innovation . Main public problems discussed in public policy fields and public arenas in the city
Meso	EIS Cartography and analysis	EIS OFFER – network of support actors	<ul style="list-style-type: none"> . Diversity of actors and segments that support EIS . Complementarity and collaboration between the support actors from different sectors . Balanced performance among support functions
		EIS DEMAND – network of social innovation initiatives	<ul style="list-style-type: none"> . Diversity of social innovation initiatives in terms of public policies fields and causes . Relationship between the policy fields, the causes treated and the public problems of the city . Characteristics of mapped social innovation initiatives
		INTERACTION AND GOVERNANCE	<ul style="list-style-type: none"> . Relationship between support actors and initiatives and between them . Reinforcement of collaborative governance
Micro	Direct observation	PRACTICES AND CONSEQUENCES – Social innovation initiatives and their action in public arenas	<ul style="list-style-type: none"> . Regimes of action in the social innovation initiatives . Answers to public problems . Technologies and methodologies used . Incidence in public arenas of the city

In the meso scale, through the cartography of 220 support actors and 293 social innovation initiatives, was possible to put lights in the diversity of actors that perform the EIS and to comprehend some important elements of its configuration in terms of offer, demand, interaction and governance. **In terms of offer** (network of support actors), it was possible to identify a diverse network that beneficiate in a balanced way the classic associativism and the new social enterprises. However, the network of support actors presents some fragilities: (1) an imbalance in the support functions, emphasizing technical support, articulation and training; (2) few possibilities to support initiatives in terms of finance, incubation and acceleration; (3) little diversification in the forms of financing; (4) little representation of government and university actors in the support network; (5) few interconnections with national and international levels.

In terms of demand it is possible to affirm that the social innovation initiatives act in a plurality of causes, but if we consider the “fields of public policies” (Howaldt, 2018) we can observe four main fields around they mobilize: (1) social security, the most expressive and composed by the more urgent public issues; (2) environment and sustainability; (3) defense of rights and

advocacy; and (4) communitarian and urban development. In each field we could identify different “public arenas” around which a diversity of publics mobilize. It is also visible the fragility of the participation of the government in the network of social innovation initiatives.

About governance and interactions - analyzing the network formed in the interface between offer and demand - we observed a diffuse governance, marked by segmentation and little partnership between support actors and social initiatives. This “club effect” create some barriers to the diffusion of social innovation and to co-creation of knowledge, collective intelligence and new capabilities in the public arenas, elements that are very important strengthen the resilience of EIS.

Finally, the micro scale analysis with the observation of the cases of 101 social innovation initiatives allowed a better understanding of their regimes of action in terms of social innovation, allowing to verify that social innovation performances vary depending on the field of public policy and the public arena being treated. In this sense, the next step of the research is to deepen the study of the “fields of experience” in the different public arenas, trying to understand better how social innovation takes place in the interface between these different initiatives and what their effects.

All these elements allow us to affirm that the EIS of Florianopolis is characterized as a more proactive phenomenon than planned one and the network is yet more disperse than connected. This raises the question in what extent it will be able to produce enduring social change to address the city's dilemmas. As discussed by McPhearson et al. (2015), Alijani et al. (2016), Howaldt et al. (2018) among others these handicaps could weaken the creative, transformative and resilient capacity of this urban ecosystem and calls into question its long-term sustainability.

These conclusions generate learning not only for the EIS actors in Florianopolis, but they can also provide evidences about the key elements that could strengthen practices in EIS networks in developing countries. This problematic is little explored in the recent literature on EIS, in which predominate studies about cities in developed countries that present different institutional, territorial characteristics and practices compared with the reality in the South.

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