

Louvain School of Management

Supporting ICT entrepreneurs in social support organizations

An exploratory perspective in the case of France and Singapore

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INTRODUCTION

How is it that “digital” is such an important word that it is both in the agenda of the EU Commission and in the sustainable development goals of the United Nations? Is it because it is a source of innovation and business opportunities, or a tool for education or social good? Why do social enterprises all around the world flourish and develop at a pace never seen before, increasingly recognized by governments in many nations? What is the reason why throughout the globe, entrepreneurship has become trendy and SMEs are praised as a purveyor of jobs and economic development? Indeed, in Europe, the business landscape is constituted of 99% of these small and medium companies (Demick & O’Reilly, 2000; EU, 2017), who provide 85% of new jobs creation (EU, 2017).

“Digital social entrepreneurs” – these three words summarize the subject of this paper. These are the people using new technologies for social or environmental purposes. In order to tackle the “inherent lack of internal resources required to develop business opportunities” of every young companies, they need entrepreneurial support (Demick & O’Reilly, 2000: 34). This phenomenon is the core of this thesis. Let us dive into the research and see how, in France and Singapore, social-driven support organizations can help digital entrepreneurs leverage their strengths to improve the world.

1. Research question and objectives

Our goal is to witness any potential differences in the support provided by social support organizations (SO) to digital entrepreneurs as compared with the services offered in traditional SO (the ones aiming at economic, business or tech development). The question itself could be summarized in these words:

How are ICT entrepreneurs supported in social-driven support organizations as compared to traditional ones?

This question calls for precise dimensions to be analyzed. Regarding the support, we adopted a focus on the four most relevant dimensions according to the literature: infrastructures, networking and community building, technology and knowledge transfer and mentoring. We opted for the services that were commonly offered by SO in most of the cases, which led us

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to let internationalization aside. We also chose not to focus on finance, since it is such a broad topic that it could be the subject of another research.

With this thesis, we have different targets. First, we aim to provide social digital *entrepreneurs* with some recommendations on the most useful and effective dimensions of support for them. Then, we wish to give *managerial* suggestions to support organizations on the type of services that they should provide when hosting digital entrepreneurs. We have an original point on this matter since recommendations from both traditional and social SO might afterwards be considered for one another. For further *research* on the topic, we will give potential directions. Finally, we suggest some examples of what technology can achieve when used for a greater good and we put the spotlight to the motivated people at work behind.

It seems useful to specify a few points that are out of our scope. To begin with, we are not trying to prove the efficiency of any given type of support organization as an economic development instrument. As we said, we will not treat any financial aspect involving venture capitalists or business angels. In addition to that, we focus exclusively on entrepreneurs, not on intrapreneurs. We target businesses that are fully *and* from the start aiming at a social purpose. Finally, we leave outside the scope the question of what Grayson called invisible science parks and virtual incubators.

2. Our approach

Although we study social support structures, most of the literature used is based on traditional ones. The reason for this is that most papers about ICT entrepreneurs followed by support structures refers to traditional ones. Hence, the process of support towards digital entrepreneurs is much more explained in this type of SO. Our goal is to compare the services brought to digital entrepreneurs in social SO as compared to traditional SO.

In order to do so, we first analyzed services offered in traditional support organization – this is the literature review. Secondly, during the empirical analysis, we realized interviews with digital entrepreneurs hosted by social structures. With these elements, we will discuss in the fourth part of the thesis the potential similar elements and see if new elements appear from

the analysis. To sum up, we build a theoretical framework based on traditional SO then we apply it to social SO.

Next, we chose to take the point of view of firms rather than the one of support organizations. Indeed, while many theories aiming at predicting the successful outcome of business incubation or key success factors have been developed in the past few years, the success of a company in a given ecosystem ultimately depends of its perception of the services provided by the SO. For some companies, the support brought by a given cluster might be adequate while for another one, it won't lead to much improvements.

Our last important point might seem quite unconventional: we chose to discuss the topic of SO *without* making a distinction between each type. Our starting point for this approach is threefold. First, some structures, like some coworking spaces, do actually more than one would expect from them: more than simply providing shared infrastructures and premises, they aim at building community and provide education to their members through workshops, etc. Secondly, taking the bet to focus on a single type of SO did not seem relevant for us: indeed, the subject of social *and* digital entrepreneurs is narrow enough for us to do so. Thirdly, services dimensions may vary a lot between two for instance incubators. We assume that even in one category of SO, there is not always homogeneity across the services offered. For instance, mentoring might be very different between two clusters – considering that both of them offer that service. Some authors have taken a similar bet, like Fabri and Charue-Duboc (2013), who use the literature on business incubation to analyze the case of La Ruche, though the organization depicts itself as a coworking space.

3. Motivations behind the study

The starting point of the thesis was the following three beliefs. First, we are convinced that ICTs has a role to play in social/environmental causes. ICT is widely seen as a source of innovation and the interest of notably international organizations is only a confirmation of that. As our supervisor for the theoretical part of the thesis is involved with ICT entrepreneurs, it was a relevant choice.

Then, we believe that entrepreneurs can leverage their resources towards the same objective: contributing to a greater good. This was the trigger for us to integrate the so-called

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social enterprises. We learned that a social enterprise with a sustainable business model can be an effective and long-lasting way to enhance the society. We chose to focus on young enterprises, for a simple reason: large corporations and multi-national companies do not need as much support for their development as they have already reached a mature phase.

Finally, we presume that gathered in communities and organizations, these people that aim at changing the world can even have a greater impact than the sum of the individuals taken separately. These convictions were the starting point of our thesis.

4. Plan

The thesis is divided into six distinct parts. The first one is the literature review, which consists of the three sections. In the first one, we provide a definition of ICTs and their importance and we give examples of application in our field of interest. In the second one, we present a general outlook on entrepreneurship support, introducing the concept of entrepreneur, putting forward the different types of SO and drawing the distinction between social and traditional ones. We will then elaborate further on the respective objective of traditional and social SO, before presenting some examples of business models. The third section is directed towards the support provided to ICT entrepreneurs: why they do it and a detailed analysis of four services: infrastructures, networking, knowledge and mentoring.

The second part goes into further detail about the research question. It presents subdivisions to our problem, according to which we will structure the empirical part.

The third part introduces the methodology that we will apply for the empirical work. We will justify the choices of the companies interviewed and give an outlook of the data collection and use methods.

In the fourth part, we present all the findings retrieved from our qualitative interviews in three SO, two in France (La Ruche, MakeSense & SenseCube) and one in Singapore (raiSE).

The fifth part aims at drawing a detailed comparison between the theory on traditional SO and the application of our findings to social SO in the case of digital entrepreneurs. This part represents the answer to our research question.

In a general conclusion, we summarize the findings and provide directions for future research.

PART I: LITERATURE REVIEW

Section A : ICTs - Information and communication technologies

ICT stands for *information and communication technology*. If the abbreviation is well known around the world, there seems to have little consensus on a clear definition, as Zuppo (2012: 13) states in these words: “ICT is a common part of several bodies of knowledge which, in many cases, relies upon somewhat of a tacit definition”. Hence, the definition must be chosen according to the context of application. She notes the following ones: socio-economic development, economic sector, business and IT and ICT for education. No matter the definition, each of them refers to “technologies that facilitate the transfer of information and various types of electronically mediated communication”.

For our purpose, compiling relevant elements of answer from the literature seems the most relevant option, with a focus on economic/business and IT/industry sector on the one hand and on socio-economic development on the other hand. For each sector, we will go through the importance of the phenomenon and some applications. A final precision for this part: we will use *digital* or *ICT* when talking about entrepreneurs or companies in a similar fashion.

1. ICT in the economic sector (business, IT & industry)

1.1. Definition

According to Zuppo (2012: 19), ICT in the economic subsector refers to “goods manufactured and produced (e.g. cell phones, wireless modems and access points, etc.) or related services (e.g. repair, installation)”. In the business world, ICT points out to devices, networks and systems that allow for communication and information processing.

Another useful distinction is offered by Tödling, Lengauer and Höglinger (2011: 1247) for ICT businesses. On the one hand, companies use the existing information and communication technologies to build new software & applications, or products based on those. In other words, they are characterized by a recombination of existing codes rather than the creation of new ones. These are large traditional industries such as companies providing “business-

oriented services and customized software production” that Chaminade and Plechero (2014: 217) have qualified as “asset-exploiting”. Examples of applications for these have been given by França, Gomes, Machado and Russo (2014: 45): Saas (service as a software), ERP (enterprise resources planning) and “trade of goods and services over the internet”. Finally, Evgeniou, Fonstad, Merdikawati, and Rodriguez-Montemayor (2013) also include unified communications, a term use to describe voice over IP, instant messaging and collaboration tools (Pleasant, 2007).

On the other hand, companies are involved in the creation of new codes for ICTs. These companies form the “knowledge-intensive” ICT subsector, encompassing for instance “biotechnology, nanotechnology [and other] research-oriented segments of the ICT sector, such as producers of sophisticated hardware and of packaged software”. Chaminade and Plechero have qualified this subsector as “asset-seeking” (2014: 217). In short, there is a distinction between ICT companies that are strongly oriented towards R&D and advanced technologies, and others that make their business out of services and sales of existing technologies.

The United Nations Statistics Division (UNSD, 2017) consider the different fields: “publishing activities, motion picture, video and television programme production, sound recording and music publishing activities, programming and broadcasting activities, telecommunications, computer programming, consultancy and related activities and finally information service activities”. This definition shows the broad variety of companies concerned and fields involved. Finally, one can read on the EU website that the “European industry can build on its strengths in advanced digital technologies and its strong presence in traditional sectors to seize the range of opportunities that technologies such as the internet of things, big data, advanced manufacturing, robotics, 3D printing, blockchain technologies and artificial intelligence offer”. These are a few more examples of applications of ICTs.

1.2. Global importance of the phenomenon

One the one hand, the current global context (Defraigne, 2012: 13) is characterized by the rise of economies like China and India and the shift of power from the Atlantic to the Pacific Ocean - despite the slowdown in GDP growth in the last years (Mohanty, 2015: 3-16). On the other hand, as maintained by the World Economic Forum (WEF, 2014), ICTs “continue to rank

high on the list as one of the key sources of new opportunities to foster innovation and boost economic and social prosperity, for both advanced and emerging economies". They are described as "key enablers of innovation and new employment opportunities", while digital companies are seen as "engines for the growth of a nation today" and the regions within it (Basu and Biswas, 2013: 203; Camagni and Capello, 2005).

These facts are put together make the European Union strategy easily understandable. Indeed, the "Digital Single Market strategy aims to open up digital opportunities for people and business and enhance Europe's position as a world leader in the digital economy" (EU, 2017). The message is clear, the EU wants to lead the way of the digital revolution. It recognizes that "the digital transformation of EU business and society presents enormous growth potential for Europe". Indeed, the 21st century is characterized by a change in paradigm in the form of an information shakedown (De Brabandère, 2012). Companies nowadays can use that profusion of knowledge made available to gain durable competitive advantages. Just as an example, the Innovation Policy Platform (2016) recognizes that for a small country, whose economy is strongly driven by services – such as Belgium, the competitive advantage lies within international competitive technology sectors.

According to Berger (2013), it indeed might be a right choice for Western economy to turn into a different economic sector than manufacturing. ICT makes it possible for companies to add value not only based on a manufacturing chain. This might be a way for companies to tackle the threat of delocalizing production described by Mazzucato (2011) and Berger (2013), that would not only harm jobs in Western economies, but also could harm their innovative capability.

ICT is a topic of global importance on a world-wide basis. It has been pointed out in the 2000-2015 millennium development goals in target 8F: "In cooperation with the private sector, make available benefits of new technologies, especially information and communications" (UNO, 2000). The later Sustainable development goals also recognize the importance of investing in ICTs in the goal 9: "Build resilient infrastructure, promote sustainable industrialization and foster innovation". It is said in the INSEAD report of Evgeniou et al (2013) that ICT can create jobs, improve competitiveness and growth, and the International Communication Union (ICU, 2014: 13) reckon that investment in the telecommunication

sector and in ICTs is rising. This fact has two consequences for ICT entrepreneurs: either they will benefit directly from these investment, or they will benefit indirectly because the number of people enabled to use ICTs will have increased, which is often stated as a goal in many sources (EU, 2017; ICU, 2014).

2. ICT for socio-economic development

2.1. Definition

When talking of ICT in the context of socio-economic development, the question of the barriers to overcome to allow these new technologies to expand always comes at hand. In developing countries, these can be a lack of infrastructure and access of the population to network and connectivity, or a lack of investment for these (Jha, Pinsonneault and Dubé: 2016: 432; Zuppo, 2012: 19). The ICU's report mentions the lack of "backbone connectivity and international internet bandwidth" (ICU, 2014). However, in developed countries, though the lack of access is less of a problem, there might be some "low likelihood of adoption". This obviously can interfere in the development of businesses.

In this context, ICT is use to describe availability of and access to infrastructures such as "mobile signals, towers and satellites" for the population. It also represents the technologies themselves such as "phones, pagers, tablets and other wireless devices". (Zuppo, 2012: 18; Goswami, 2014 :126)

2.2. Importance of the phenomenon

Goswami (2014: 126) tell us that ICTs "are having a major impact on economic and social relationships among individuals, communities and nations". He pursues in these words: "its unique function as a key element of infrastructure for efficient industries and a critical productivity enhancer is crucial for sustaining recovery and laying the foundations for economies that are competitive in the long term".

During our searches, we found many ways in which information and communication technologies could be used to fulfil social, moral & environmental motivations, "in ways not previously imagined", as Zuppo writes (2012; 20). Many authors from the literature have offered detailed analysis of how exactly ICT could benefit the society. Improvements can be brought in four fields: "social equality, [...] access to health-related information and health

services, providing education to disadvantaged communities, and facilitating commerce” (Ganju, Pavlou and Banker (2016); Goswami, 2014:129). Finally, Goswami (2014) describes, in a generic article, the benefits and disadvantages of ICT regarding three aspects linked with sustainability: economic, social and environmental. These dimensions have been often described in the literature and are gaining a growing notoriety (Denis, 2014).

The sustainable development goals (UNO, 2015) encompass this objective in the following words: “significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020”.

3. Applications of ICTs in the fields of sustainability.

Firstly, poverty alleviation is a step forward to social equality, and Jha et al (2016) depict the role that ICTs can play in there. To bolster their argument, they analyze the leverage brought by an ICT-enabled platform for Indian farmers. They describe how ICT brought together partners from different groups and institutions and how it brought more information useful to them. Farmers benefited of having a network where good practices could be shared and gained bargaining power as well. The authors summarize the information in these words: ICTs is a “platform for inclusivity, collaboration, and innovation” (Jha et al, 2016: 432). Another example in this field has been given by Andrade and Doolin (2016). They enlighten the role of ICT to help integrating refugees socially in one given country.

Secondly, Khurshid, Shad and Reid (2016) have emphasized the use of ICT for Pakistanese education. The ultimate goal being the improvement of the learning experience for children, integration of these technologies for teachers remains and should be a priority.

Thirdly, regarding health services, ICTs brought transformation by “efficiently connecting people and improving information sharing” (e.g. medical records, examination results, prescriptions) (Goswami, 2014: 130). The WHO uses ICT for monitor public health on a global scale, to improve related practices (Zuppo, 2012: 15).

Finally, Zuppo (2012) underline the role of ICTs during disasters to help evacuating a place and afterwards organize the rescues, e.g. using cell phones with GPS systems. She gives the examples of the 2004 Phuket tsunami in Thailand and the earthquake in Fukushima (2011).

During these, the WHO has used ICT for “threat detection, risk assessment, event verification and response at national and international levels” (WHO, 2017).

During our practical part, we will present other types of enterprises that can “enhance the well-being of nations” in any of the fields quoted before with social, economic or environmental benefits (Ganju, Pavlou & Banker, 2016).

Section B: A general outlook on entrepreneurship support landscape.

This section introduces some useful concepts for our purpose. First, we will present a definition of the word entrepreneur. Then, we will present two classifications: in the second point, we discuss the various types of entrepreneurship support organizations while in the third we categorize them according to their goal. We will go into further detail about the respective rationale of social and traditional support organizations: these are our fourth and fifth points. Finally, we introduce some examples of business models for these organizations.

1. The concept of entrepreneur

The concept of entrepreneur has been extensively treated in the literature, hence we will not take a detailed approach here. Nevertheless, since we had to explain the phenomenon, we chose to follow the path of Carland et al (2002: 179), who define an entrepreneur as somebody “who organizes and manages a business and undertakes the risk for the sake of the profit”. This definition needs to be completed in two ways. On the one hand, we argue that the goals of entrepreneurs can be different from profit only. In line with Dees (1998), we define social entrepreneurs as “entrepreneurs with a social mission”. On the other side, as Drucker, quoted by Dees (1998: 2), mentioned: “not every small business is entrepreneurial or represents entrepreneurship”. This being said, we consider entrepreneurs in a very broad way and our focus is equally about the businesses of the entrepreneurs themselves: start-ups or young companies in general.

2. Types of support organizations

This section is intended to draft a quick overview of the existing entrepreneurial support initiatives. It does not constitute an exhaustive list, but aims at demystifying the somehow

confusing SO landscape. Indeed, the line might be thin between a coworking space providing services such as networking and events, and a so-called incubator. Moreover, we chose not to draw a distinction between private and public structures. The reason for this is that many of the undermentioned can be either public, private or a mix of both. Finally, we will define in a very simple way a support organization as an organization that supports and helps entrepreneurship to develop their businesses through a broad range of services. The reader will note that this is the only sub-section where we will distinguish between the different types; in the rest of our research we chose to consider them all together, as stated in the introduction.

2.1. Incubators

Hackett and Dilts (2004: 57) define an incubator as a “shared office-space facility that seeks to provide its incubatees [...] with a strategic, value-adding intervention system [...] of monitoring and business assistance”. In line with them, Tamasy (2007:462) describes technology-related business incubators as a “property-based initiative assisting technology-oriented businesses to become established and profitable during the start-up phase”. However, if Al-Mubarak and Schröl (2011: 435) reckon that incubators are organizations that “support startup and entrepreneurial businesses by providing several services and resources to clients”, they do not mention the infrastructures provision aspect in their definition, leaving space to include different organizations. As a consequence of that, Rabbri and Charue-Duboc (2013) took that space to include the entrepreneurial model of La Ruche, that they describe as “an incubating model based on a collective society of entrepreneurs”. In here, no outside consultants, but rather recommendations given to the members by the members. Nevertheless, La Ruche describes itself as a co-working space on its website. Finally, Grimaldi and Grandi (2005) categorize incubators according to the public-private dimensions one the one hand, and to the potential links with a research institute on the other hand. In incubators, typically, the support is limited in time.

2.2. Coworking spaces

Bouncing back on Fabri and Charue-Duboc, Uda refers to coworking spaces as “a way of working in which working individuals gather in a place to create value while sharing information and wisdom by means of communication and cooperating under the conditions

of their choices”. In line with this definition, Meslier (2017) maintains that coworking spaces should create and maintain entrepreneurial communities with synergies between members.

2.3. Science parks

Tamasy (2007: 463) defines sciences parks as “a special form of incubation initiative”. They often have strong links with research institutes like universities. In the light of Luger and Goldstein (1991)¹, quoted by Tamasy (2007: 463), they’re defined as “organizational entities that sell or lease spatially contiguous land and/or buildings to businesses or other organizations whose principal activities are basic or applied research or development of new products or processes”. This emphasizes the technological aspect of incubation and science park.

2.4. Clusters and pôles

Lehmann and Benner (2015: 192) present a definition of clusters in these words: “spatial concentrations of companies from the same or related industries and other organizations such as research institutes and support agencies”. In the case of the so-called “Pôles de compétitivité”, also present in Walloon, Belgium, they enlarge the definition to encompass “industrial estates, organized networks and large-scale technoparks regulated by a specific legal framework, [...] managed by a management company with professional staff [which] can be public, private or hybrid”. The authors also mention the role of clusters as providing all necessary support services to the members’ companies in one place.

2.5. Business networks

Vasilchenko and Morrish (2011: 88) describe organizational and business networks as “consisting of multitudes of people and organizations to create innovation and commercialize products to international markets”. Here, we understand that a network of entrepreneurs gathers people or companies together for a given purpose, in most cases related to business. The network can be differently structured and therefore support more or less its entrepreneurs.

¹ Luger, M., & Goldstein, H. (1991). Technology in the Garden. *Bulletin Of Science, Technology & Society*, 13(3), 171-171. <http://dx.doi.org/10.1177/027046769301300363>

2.6. Other public and private initiatives

Alongside these long-time support ventures, there are many other forms of organizations with a similar goal of supporting start-ups. We can for instance mention one-off initiatives such as export support organizations (EPO), which have been developing training and networking programs to support export of locally-based companies, notably in Northern Europe (Demick and O'Reilly, 2000). Secondly, regions and governments can be more directly involved in providing financing and a whole other lot of services, like it is the case for the Small Business Act, an initiative of the European Union to foster entrepreneurship within the member states. Thirdly, let us mention certain international programs targeting entrepreneurship support, such as the EU supporting ICT businesses by building a better and unified policy framework (Evgeniou et al, 2013). The European Commission is for instance reviewing European Data Protection rules, cutting prices of data roaming and working together with the other actors to build confidence and attract talents in the sector.

3. A categorization: social and traditional support organizations

In this subsection, we introduce a classification of support organizations based on their objective.

According to our hypothesis presented in the introduction, we chose to apply Aernoudt's classification (2004: 128) - about incubators - to the different types of support organizations that we presented in the above subsection. The author chooses to categorize them according to their goal. Moreover, we noticed across the literature that most of the articles on ICT entrepreneurship support structures were dedicated to the four following categories: economic development, technology, business incubator or basic research. Therefore, we chose to group these 4 categories and call them together "traditional" business support initiatives or organizations. By opposition to that remains the so-called social-driven support organizations.

TABLE I
Typology of business incubators

	Main philosophy: dealing with	Main Objective	Secondary	Sectors involved
Mixed incubators	Business gap	Create start-ups	Employment creation	All sectors
Economic development incubators	Regional or local disparity gap	Regional development	Business creation	All sectors
Technology incubators	Entrepreneurial gap	Create entrepreneurship	stimulate innovation, technology Start-ups and graduates	Focus on technology, recently targeted, e.g. IT, speech-, biotechnology
Social incubators	Social gap	Integration of social categories	Employment creation	Non profit sector
Basic research incubators	Discovery gap	Bleu-Sky research	Spin-offs	High tech

(Aernoudt, 2004)

In the following two points, we will take inspiration from Aernoudt to dig further into the main motivations of both social and traditional support organizations. Nevertheless, we argue on the fact that one support structure can have different goal. For instance, a cluster could be meant to favor both the economic development *and* the emergence of new technologies. Therefore, we will not follow the exact typology of the hereabove table but rather build our own with the work of different authors.

4. An in-depth perspective on the goals of social SO

Aernoudt (2004) gave us a first idea of the concept of social SO, which “main philosophy” is to “deal with social gap”. We define social SO as simply as we did with traditional forms: an organization supporting and helping social entrepreneurs in the development of their business. However, the concept of social entrepreneur needs to be further detailed here.

Dees (1998:3-4) presents a definition of it in these words: social entrepreneurs’ mission is “to create and sustain social value (not just private value), [...] engaging in a process of continuous innovation, adaptation, and learning, acting boldly without being limited by resources currently in hand, and exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created”. For him, “social impact is the gauge”, and this impact must be sustainable. Nevertheless, he states that “it is inherently difficult to measure social value creation”.

For Charue-Duboc (2013: 88), social entrepreneurs are different from the others by “their will to create social value next to economic value”.

5. Lights on traditional support organizations’ motives

According to Basu and Biswas (2013: 203), governments around the world should "promote and facilitate the growth of business incubation". From the literature on ICT entrepreneurship support, we distinguished five categories of goals for traditional support organizations. .

5.1. Job creation

Firstly, support organizations can generate spillovers and give job to young graduates from universities (Basu & Biswas, 2013; Grimaldi and Grandi, 2005). Then, Demick and O'Reilly (2000) found out that support organizations active in the field of internationalization could have positive effects on job creation. Nevertheless, some authors are not that satisfied with that objective: Hackett and Dilts (2004) deplore the lack of clear definition regarding incubator development studies, hence the impossibility for them to consider that one of incubator's main goal is job creation. In addition to that, Tamasy also mentions job creation (2007: 463, 468) before concluding that there was “no relationship between the opening of science parks and employment growth in high-tech sectors”.

5.2. Innovation and emergence of new technologies.

Lehmann and Benner (2015) have stated the positive effects of clusters on tactical and strategic dimensions such as innovation and on operational issues. Tamasy bolsters that argument in the following words: “They [incubators and science parks] are designed to encourage the formation and growth of knowledge-based businesses and other organizations normally resident on site” (2007: 463). Bergek and Norrman (2008: 20) go even further by seeing them as a “tool for promoting economic development, innovativeness and the emergence of new technology-based growth firms”, especially in low-growth regions. Finally, Basu and Biswas (2013) made a similar claim regarding university-based incubators and their spin-offs, which are in many cases knowledge-based ventures. Grimaldi and Grandi stress the fact that in university-linked incubators, spin-offs members can use the research equipment to develop their technologies, leading to higher value creation. Nevertheless, just like in the case of job creation, Tamasy (2007: 463) is very critical towards that point, claiming

that in many cases, and even more for publicly run ones, technology-based incubators fail to achieve their goal of spurring innovation and regional development. She clearly states that business incubators “do not increase the likelihood of firm survival, innovativeness, and growth”.

5.3. Economic development.

Lehmann and Benner (2015) show that clusters could increase the recognition of entrepreneurial culture and foster entrepreneurship. As we have seen, entrepreneurs and small companies are extremely important for a region’s economic ability. Science parks and other SO can therefore “act as catalyst for the regional economic development and [...] promote economic growth” (Basu & Biswas, 2013: 203). Kowalski and Marcinkowski (2012) have a different claim: that cluster and cluster policy are can “bridge institutional voids” in the Polish ICT sector, by linking companies and research institutes such as universities to provide them with labor, networking and spatial agglomeration. This in turn can reinforce the economic structure of the industry. In the same line, Grimaldi and Grandi (2005) point out that being in a support structure can lower the entry barriers for a specific industry. Finally, according to Meslier (2017) who writes about coworking spaces, support organizations have to do more than just hosting entrepreneurial ecosystem, they should create them. The only article with an opposite claim to the abovementioned is once more time from Tamasy (2007), who notes that incubators also often fail to bring regional development.

5.4. Creation of new ventures.

Tamasy (2007: 463) highlights the importance of incubators and science parks in the establishment and creation of new businesses. This is in line with Hackett and Dilts (2004:57-58) for whom incubators are “facilitating the successful new venture development of the incubatees while simultaneously containing the cost of their potential failure”. In turn, this can contribute to the economic development of a region, especially in the case of “high-growth new ventures”.

5.5. Profit

As mentioned in Tamasy (2007) and Grimaldi and Grandi (2005), profit might be the reason of existence of a business incubator. This does not mean that the incubator will not

contribute to the society besides that, quite the opposite, but simply that its main motive is lucrative.

6. Business models of traditional support organizations

The literature concerning business models for social SO is quite scarce. We will therefore use traditional SO as a basis for comparison. From the literature, we found out that most of the entrepreneurship support initiatives are public or at least have public involvement (mixed forms). Nevertheless, some are exclusively private.

6.1. Public or semi-public support initiatives

In Belgium, clusters have been supported by the Walloon government since 2001, when the importance of business networks for entrepreneurs was recognized (Wallonie, 2017). Here, the region went as far as setting up its own support organizations for the promotion of entrepreneurship and business development. We will note the existence of a specific cluster for supporting ICT-based companies: *Infopole*. In the light of Lehmann and Benner (2015), we learn that the management company behind clusters and science parks can be publicly run, privately or a mix between both.

Grimaldi and Grandi bolster the argument that governments should involve themselves in business incubation if they want the national companies to compete on a wider international basis. This could tackle the issue that the incubator's member companies sometimes lack "formal relations" (2005:116) with public entities which could be "external sources of competencies and knowledge".

When taking a closer look at publicly run SO working closely with research centers, we found many business models. First, sciences parks can be created and run by universities, like in the USA - nevertheless universities in America can be private or public (Tamasy, 2007: 462). Secondly, in publicly run German incubators, the involvement of the public party (municipalities) can be strong while the one of universities very small. In Singapore, we noticed that many SO were government funded, totally or partially. For Tamasy, support organizations are subsidized and therefore it makes it a good option of infrastructures for start-ups going through their difficult early phase at a low cost.

6.2. Exclusively private support initiative.

According to Hackett and Dilts (2004: 58), private incubators are meant to support “high potential ventures”. In this case, Collinson and Gregson (2003) distinguish between three sorts of remuneration for the supporting organization. In the first case, a venture can pay a fee to the incubator. Secondly, the incubator will take an equity stake in the venture (Fabbri & Charue-Duboc, 2013). Thirdly, the collaboration can be based on potential future partnership (Grimaldi & Grandi, 2005). In any case, there is a strategic dimension behind the incubator-incubatee relation.

6.3. Is all public a good thing?

Tamasy (2007) states that publicly-run support initiatives often have a political role and are often used in political speeches, because of their visibility and the consensus around their utility. She pleads for privately run business incubators, because of the high cost of funding of the public ones and “low motivating effects” for the incubatees (2007: 469). Secondly, Lehman and Benner (2015) recommend a partial funding from the government rather than a total one. In their belief, if the clusters managers are directly involved into the management of the participating ventures, it can increase the chances of success of the SO.

Section C: Services provided to digital entrepreneurs in traditional SO

This section is intended to specify important aspects for the growth of young companies in support organizations. These offer a wide range of services, out of which we chose to leave three aside: legal and IP services, internationalization and finance. The main reason is that not all SO encompass these in the range of services they offer. Rather than that, we chose to focus on the most relevant and general features in the literature we have analyzed.

We will first look into why companies might seek for support, before describing a general method for a good fit between the two counterparts. We will then go successively through infrastructures provision, networking, technology and knowledge and mentoring aspects.

The reader will notice that the literature used here is borrowed from support structures with an economic, business or research goal. Bouncing back on the introduction, the reason is that most of the literature regarding ICT entrepreneurs being supported is also about this kind of

structures. We intend to compare their characteristics and methods with those of social SO in the empirical part.

1. Reasons for companies to seek support

For companies, there are many reasons to seek support when growing their business. Authors in the literature have featured some of them. First of all, young ICT companies need to bring together critical resources such as capital, technology and knowhow (Basu & Biswas, 2013; Vasilchenko & Morrish, 2011). In other words, this is to compensate for their small size. Secondly, being in a supportive environment can allow them to gain market legitimacy in their industry and therefore develop their access to business opportunities (Collinson and Gregson, 2003; Demick & O'Reilly, 2000: 34). Moreover, it allows them to be faster on the market, a point that has been raised by many as well, and on which we will come back. Finally, Lehmann and Benner (2015) recently came up with a theory in which they point out the importance of business networks and clusters to bridge institutional voids in areas such as contract enforcement, human capital (matching the skills and training of workers with those needed by companies) or financial capital.

2. The importance of recognizing company and context-specific factors

According to Hackett and Dilts (2004), there must be a good fit between the incubatee and the incubator, otherwise there is a risk of value subtracting incubation process. Grimaldi and Grandi (2005) add to that assertion that that managers of support organizations should adapt the services to the type of company. Reaching the same conclusion, Demick and O'Reilly emphasize the fact that "the services must be tailored to the needs of the individual participants" (2000: 40). Indeed, it seems obvious that support organization cannot "do one size fits all" (Lehmann and Benner; 2015: 195).

In the light of Lehmann and Benner (2015: 198), we learned that for an effective cluster policy, three dimensions are needed. The first one is "an awareness for the specificities of each national and regional context", the second is a need for "coherent macro policies to improve the general business environment". Finally, they mention the need for the founding authority to analyze the existing regional agglomerations as it is easier to build on the synergies created

beforehand between companies. For Tamasy as well, “recognizing contextual issues is paramount” (2007: 470).

3. Physical dimension & infrastructures provision

This first dimension we chose to highlight is the infrastructure provision. Not all types of support organizations provide the same level of infrastructures. In incubators, ventures are typically located within the SO premises, with the range of facilities including “meeting rooms, telecommunication services and secretarial functions” (Tamasy, 2007: 462). This model of incubation has been described similarly by Collinson and Gregson (2003: 116) and Grimaldi and Grandi (2005). Basic shared premises are also commons for coworking space (Fabbri & Charue-Duboc, 2013; Meslier, 2017). In the case of a business cluster, the management might occupy a central location but the members companies typically have their own premises (Lehmann and Benner; 2015). In case of a business network, if there is a central authority, it will not automatically provide infrastructures for the members, who might be far away from each other.

The advantages of having shared premises are numerous and some of them will be further detailed in the following points. Firstly, infrastructures are often subsidized hence it makes it a good choice for young companies to have their own offices at reduced cost. Secondly, the layout of the SO might be designed as to provide nested companies with “informal meeting spaces aimed at “providing synergies” (Tamasy, 2007: 462). Here, two aspects are underlined: the atmosphere of work and the possible networking effects. Thirdly, the support organizations might have shared premises in one or many locations, enhancing further any internationalization opportunities (Demick & O'Reilly, 2000; Tamasy, 2007).

4. Networking & community building

Networking is the second dimension we will consider in our analysis. According to Ward (2017), it represents “the process of establishing a mutually beneficial relationship with other business people and potential clients and/or customers”. Multiple articles have highlighted the importance of having strategic contacts with other businesses or support organizations. Tamasy for instance (2007: 469) reckon that “contacts with other firms are particularly important in the initial stages”. Moreover, she points out that these inter-companies' relationships often continue after the support period.

4.1. From informal to strategic and business contacts

Many authors have underlined the fact that informal contacts are key when it comes to networking. Vasilchenko and Morrish (2011) draw the distinction between social and business network. For them, social informal contacts are the cornerstone for later strategic contacts, leading to business or strategic networks. In the same manner, Collinson and Gregson describe "informal social interaction" (2003: 192) as a way for entrepreneurs to get further advantages, which we will detail in the following point. These advantages are also summarized by Tamasy (2007: 462) in the terms of "synergy effects". Finally, Fabbri and Charue-Duboc (2013) indicate how interactions are created using different kinds of informal events, which might lead to strategic collaboration on a long-term basis. Hall and Soskice (2001) spotlight the importance of strategic interactions as the main mechanism of coordination in coordinated capitalist economies.

Networking events include "conferences, joint projects, industrial fairs" (Schröder, 2012: 743) or simply meetings in the informal discussion spaces of the SO such as the cafeteria (Tamasy, 2007). Networking does not only happen between different companies, but also between firms and organizations, governmental or not, that facilitate entrepreneurship (Tamasy, 2007).

4.2. Benefits

Synergies brought by networking can lead to many advantages for firms. Firstly, it can lead to improvement in both production and strategic planning, hence increasing competitiveness (Demick & O'Reilly, 2000). Secondly, collaboration is often stated as a result of networking (Demick & O'Reilly, 2000; Fabbri and Charue-Duboc, 2013). Uda (n.d.: 2) mentions for instance that coworking "aspires to balance individual autonomy with collaboration with others". Thirdly, companies can use their entrepreneurial network to discover and exploit international opportunities (Demick & O'Reilly, 2000; Vasilchenko and Morrish, 2011). Indeed, being surrounded by potential business partners, one can spot opportunities more easily. Fourthly, and we will go into further detail in the next subsection, the transfer of knowledge is one of the key advantages of networking (Collinson and Gregson, 2003; Grimaldi and Grandi, 2005; Schröder 2012).

Two authors point out an interesting fact: Collinson and Gregson (2003: 192) and Fabbri and Charue-Duboc (2013). In both their articles, they found out that networking is more useful to acquire knowledge or find partners on a long-term basis than as a way to find financing.

5. Technology and knowledge transfers in the ICT industry

In this subsection, we will detail the relations between the types of ICT industry and the knowledge processes at hand, respectively analytic and synthetic. Then, for each ICT subsector, we will analyze how knowledge can be gained for digital entrepreneurs.

5.1. Relation between industry and type of knowledge transfer in ICT sector.

We already mentioned Tödtling et al. (2011: 1247-1248) in the first section of the literature review. These authors classify ICT domains according to the knowledge base, namely the knowledge-intensive one - based on a lot of R&D – and the services-oriented one.

Regarding knowledge and technology transfers, their point is that the ways of transferring are different between these two types of domains. The following table, extracted from Tödtling et al (2011), mentioned the “learning by exploring” (analytic) method versus “learning by doing and interacting” (synthetic). As we can see, one type of transfer of knowledge will happen according to the ICT domain in which the company is embedded.

Analytical knowledge base	Synthetic knowledge base
Knowledge-based sectors (e.g. biotechnology, research-oriented segments of ICT sector)	Traditional industries (e.g. machinery, engineering, customer/service-oriented segments of ICT sector)
Dominance of codified knowledge, complementary role of tacit knowledge	Dominance of tacit knowledge and practical skills
Appliance of scientific principles and methods	Application or novel combination of existing knowledge
Systematic basic and applied research; formal organization of the knowledge generating process (e.g. in R&D departments), documentation of results	Low levels of R&D
High importance of scientific inputs of universities and other research organizations	Strong orientation on solving specific problems articulated by customers
“Learning by exploring”, university–industry partnerships	Learning by doing and interacting, user–producer relationships
Radical innovation	Incremental innovations

5.2. Analytical transfer of knowledge

Typically, an analytical transfer of knowledge takes place between universities or other research organizations and companies. It is, as Tödling et al said (2011: 1248), “more often based on cognitive and rational processes, analytical techniques or formal models”. Academic spin-offs exhibit this kind of transfer of knowledge. For Tamasy (2007), technology-oriented incubators and science parks often have strong links with research institutes such as universities. There, the mechanisms of the transfer of knowledge at play are facilitated by the management of the support organization.

A first advantage is that the process of passing entry barriers of a given industry is facilitated for these spin-offs by the fact that they can take advantage of the material and labs of the university and of its expertise and scientific knowledge (Grimaldi and Grandi, 2005; Tamasy, 2007). As we can see, the academic / research center presence is both a condition and an advantage for these companies. A second advantage is that the business in close contact with research centers “seem to have a greater aptitude to participate in collaborative R&D projects at an international level, and more likely to adapt new communication technologies” (Tamasy, 2007: 468). As a consequence of that, Chaminade and Plechero (2014: 217) reckon that when this kind of knowledge transfer is at hand, it can enhance the innovative capability of these firms.

An example of these analytic ecosystems has been given by Al-Mubarak & Schröl (2011): the Knowledge Oasis Muscat (KOM) in Oman “establishes business incubation programs as joint venture with the U.K. technology park programs. The main services are business information finance and incubation development with technology transfer”. It is only one example from the extensive research that has been developed in the literature.

Nevertheless, Tamasy (2007: 468) maintains that “businesses in science parks are not better informed about research at local universities”. That calls back into question the role of technology transfer in technology-oriented business incubators.

5.3. Synthetic transfer of knowledge

As stated before, synthetic transfers of knowledge require a lot of user-interactions and a very different set of skills, less based on intensive R&D. We identified many ways in which a synthetic transfer of knowledge could happen.

First of all, Grimaldi and Grandi (2005) recognize that networking allows young companies to gain knowledge from external business partners - non-member organizations involved with the support organization. We will also include as business partners public entities which, according to the same authors (2005: 116), can be external sources of competencies and knowledge. Nevertheless, they also contend that in incubators providing these kind of services, companies sometimes lack "formal relations" with these public entities.

Next, Schröder (2012) emphasizes on the transfer of knowledge between two or more innovative companies within a supportive ecosystems. He states that "the physical proximity of cluster members increases the probability that knowledge will be disseminated [...] by means of informal gatherings". In La Ruche, the incubating model presented by Rabbri and Charue-Duboc (2013), knowledge circulate by means of recommendations given to the members by the members. On top of that, Parrino (2013) mentions the "importance of elements of organizational and social proximity in stimulating collaboration among coworkers and in promoting exchange of other forms of knowledge". In a nutshell, it is considered that organizational and business learnings come from interactions between fellow companies within a collective workspace.

Thirdly, learnings can be spread through the support organizations themselves, in the form of conferences or industrial fairs (Schröder; 2012), workshops and all the informal meetings opportunities we mentioned before. In addition to that, the SO can offer their network of experts in different business areas to help the start-ups (Grimaldi and Grandi, 2005: 113). In this case, the management of the SO is engaged in knowledge exchanges (Tamasy, 2007: 463). As an example, Lehmann and Benner (2015) present the case of a Serbian cluster whose role was to provide business information, specialized human capital training and technical and managerial assistance to its members.

6. Mentoring

Grimaldi and Grandi (2005) contend that young companies are in search for expertise. Support organizations can and - in line with their claim - should play the role of mentor for them. Mentoring is extensively used in the literature, but it becomes relatively scarce when it comes to specifying the exact content of the mentoring services mentioned. This component of entrepreneurial support is in most cases described in a general manner. We

will define mentoring as the action of counselling enterprises in different business domains ranging from sales to operations or project management: every management field can be included. We chose to write a separate point about speed and access to market then to present examples of other mentoring services.

6.1. Access and speed to market

One particular point related to sales often comes back in the literature: the access to a given market and the speed at which one will place its products or services. That dimension is often described as one of the most important success factors for young companies. Indeed, in this era of globalization, competition is harsh on a global scale and the companies need not only good products, but also to place them first in consumer's mind (Collinson and Gregson, 2003; Grimaldi and Grandi, 2005; Vasilchenko & Morrish, 2011: 89).

6.2. Other business development advices

As we have said, authors in the literature are quite shy when it comes to explain what they mean by mentoring. For instance, Tamasy (2007: 463) mentions the “business skills” and “business advice” that can be transmitted to the members, but do not give explicit details about their nature.

We find an exception in Grimaldi and Grandi (2005: 113), who classify support services in in the following categories: business development mentoring, management coaching and legal and intellectual property advice. As we are most interested in the two first categories, we note the following concrete examples such as “the ability to take on the tasks of managing an office, hiring and payroll, [...] efficient completion of the entrepreneurs’ business models, validation and vetting, the provision of experienced operation staff, recruiting mechanisms [...] concept validation and construction; provision of technology to accelerate product development or support [...]”. The management training aspect has been noted by Lehmann and Benner (2015) as well.

As we can see, the list can be expanded in many ways. A traditional MBA cursus such as the one given by the LSM or any other management school typically includes themes such as innovation, strategy and marketing, supply chain & operations management, finance & accounting, information systems and data analysis, IP, legal and economic aspects and internationalization of the abovementioned. All these could potentially be topic for

mentoring but we will not dig further, as the expression mainly refers in the literature to a very broad variety of skills.

6.3. Critics

Demick and O'Reilly (2000) criticize entrepreneurship support programs in Ireland. Their reason is the following: if many companies are supervised to enhance a dimension of their business development, they face the risk that competitors benefit from the same learnings. Moreover, after defining the consulting services as "central and innovative elements of the technology-oriented business incubators", Tamasy (2007: 467) qualifies it as "of little significance for the development of firms".

Section D: conclusion of the literature review

The first section of the literature review presents a general introduction about information and communication technologies. We have provided two definitions, based on the context of application, and identified two subsectors within the ICT industry: one is knowledge-intensive and the other is service-oriented. We have also highlighted the global importance of ICTs as a source of economic opportunities and innovation. Finally, we provided examples for which ICTs is used to answer social or environmental needs.

The second section introduces support organizations: a general name for incubators, clusters, science parks and all other initiatives aiming at helping young companies in their development. We defined the concept of entrepreneur, presented briefly different types of support organizations and categorized them into social and traditional ones. We then focused deeper about the respective objectives of each category. While social support organizations aim at supporting digital entrepreneurs. Traditional support organizations can have multiple goals, from job creation to profit, to innovation and emergence of new technologies, economic development and the creation of new ventures. Finally, we presented different business models for traditional SO: take an equity stake in the ventures, charge them a fee or secure a future strategic partnership with them. Some authors maintain that some private involvement is a way to improve support.

We started the third and last section of the literature review by stating general reasons for companies to seek support in traditional support organizations. These reasons mainly refer to young companies dealing with their inherent lack of resources, allowing them to raise capital, bring together resources, find legitimacy and get access to market and technologies. We then presented a general set of good practices about considering company and context-specific factors. After that, we presented four relevant dimensions of support: infrastructures, networking, knowledge transfers and mentoring. We will go into further detail about the key learnings of each aspect in the next part of the thesis, where we will precise the research question and our assumptions.

PART II: RESEARCH QUESTION

Let us recall our research question: *How are ICT entrepreneurs supported in social-driven support organizations as compared to traditional ones?* This question being a comparison, we will therefore present here the key elements to do so, structured following the three sections of the literature review. Indeed, although the answer to our research question is provided by the analysis of the support dimensions themselves (third point), we found useful to bring to the reader's mind important assumptions we made about digital technologies themselves and the functioning of support organizations.

1. ICTs

Assumption 1: Two subsectors form what we called the ICT industry in the economic sense: one is knowledge-intensive and the other is business services-oriented.

Assumption 2: ICTs' role in tackling social and environmental issues are being increasingly recognized. ICT can help in social justice, health, commerce or education.

2. Support organizations

Assumption 3: Since different support organizations can provide very similar services to entrepreneurs, we do not consider relevant to discriminate between them.

Assumption 4: Traditional support organizations' role range from job creation to innovation, economic development, creation of new ventures and profit.

Assumption 5: Support organizations can be publicly funded with more or less private involvement. Business models for private initiatives are membership fee, equity stake or promise of future partnership.

3. Services provided by SO to digital entrepreneurs

3.1. Reasons for companies to seek support

Assumption 6: Companies might seek entrepreneurial support in order to bring capital, technology or know-how, gain market legitimacy and access to business opportunities, be faster on the market and bridge institutional voids.

3.2. The importance of company and context specific factors

Assumption 7: Services should be adapted to the type of company being supported and the SO should consider context-specific factors for an effective support and potential synergies.

3.3. Physical dimension and infrastructures provision

Assumption 8: Infrastructures provided by SO can be offered at a cheap rate and provide networking through their layout.

3.4. Networking and community building

Assumption 9: when it comes to networking, strategic collaboration is brought by informal means. For companies, it can improve production and strategic planning, lead to long-term collaboration, ease internationalization or bring knowledge to them. Networking is not often used to get access to funding.

3.5. Knowledge and technology transfer

Assumption 10: The type of knowledge transfer is dependent from the ICT industry in which the company is embedded.

Assumption 11: Analytic transfers of knowledge happen between companies and research centers. Sciences parks and technology-related incubators often have strong links with these.

Assumption 12: Advantages of analytic transfers include facilitation of entry in a given industry by the use of material and expertise, greater aptitude to participate in collaborative research projects and more innovative companies.

Assumption 13: Synthetic transfers of knowledge can come from external business partners, fellow entrepreneurs or the SO themselves.

3.6. Mentoring

Assumption 14: Mentoring is a broad term that can be used to describe a large variety of business services. Amongst these, access and speed to market are particularly important.

Assumption 15: Providing mentoring for many members in one SO can cause enhanced competition between them and is described by some authors as of little significance for the development of the firms.

PART III: METHODOLOGY

This third part introduces the methodology adopted for the empirical work presented in the two following parts. We will begin by detailing our approach, then our method, the way we processed the data and how we selected the interviewed organizations.

1. A qualitative approach

The research topic of this thesis is rather specific: digital entrepreneurs being followed in social support organizations. Therefore, we thought of an exploratory study as the best way to grasp some understanding about that phenomenon. Then, we chose to adopt an inductive qualitative approach of the situation, based on personal interviews (Charue-Duboc, 2013: 89) and a questionnaire. This is in line with our theoretical approach as stated in the introduction: we consider more important the perception of services by digital entrepreneurs than any measures of success of support organizations. The interviews have been conducted in three SO and 5 digital young enterprises. A conceptual framework for the analysis has been developed beforehand in the form of the literature review. The conclusions (subsection I.D) summarized the main findings used to draft the guide.

2. Semi-directed interviews

After adopting a qualitative approach, we chose to realize interviews using a semi-directive or semi-leading structure. Our interview guide (see appendice) aimed either at SO or at entrepreneurs has been structured in big topics. We formulated the questions in an open manner in order not to orient their claim and gather useful information. Questions were always asked from the most general to the most specific point for each topic (Falize, 2017). Sancare, after a phone conversation, accepted to answer a quick questionnaire through email, as they were very recent member of La Ruche. Nevertheless, they brought some very useful perspective on our research question.

As we were abroad, we had no choice but to realize five of the interviews using VoIP software like Skype. Nevertheless, the interviewees took the time to answer our questions and give detailed information about the topic. The three interviews in Singapore have been realized face-to-face in the premises of the businesses.

The objectives of the interviews were twofold. According to the terminology of Quivy et al (1995)² quoted by Lejeune (2017: 14), we can firstly say that they aim at “bringing meaning” to the services provided by SO to digital entrepreneurs. Secondly, they aim at “analyzing a precise problem”: in this case, the support provided from the perspective of the entrepreneurs themselves, according to four dimensions.

3. The treatment of data

The interviews have been recorded then transcribed. The useable material is therefore only textual. Then, we set up a database gathering useful information extracted from the transcriptions. The database was structured similarly to the literature review, adding some additional variables whenever the information gathered would not match our theoretical framework. This method then allowed us to retrieve useful information to detail the goal, mission and technologies of the companies (III.A) as well as the support brought to them by SO (III.B). Afterwards, we used the same software to aggregate the information and spot the interesting elements for the comparison part (IV.A). Finally, our tables led us to determine which dimensions simply could not be compared with the literature (IV.B). In a nutshell, we categorized textual information using Excel, processed it to match our theoretical framework and used it to draft the following sections.

4. The selection process for SO and digital entrepreneurs.

We selected the support organizations based on three criteria. Firstly, they had to welcome social entrepreneurs, which we could test simply by looking at their mission statements on their websites. Then, we wanted the physical infrastructure dimension to be included, so we chose SO that welcomed physically enterprises or were in direct reach of these. Finally, as an international perspective was needed, we decided to target France rather than Belgium. A journey in Singapore led us to realize some interviews as well in the city-state. The search for those SO happened online, by looking for keywords on internet search engines.

Once the choice of the three support structures was made, we used their online directory of social businesses to find out the ones developing or selling information and communication technologies or services. After a first pre-selection, we checked their website online to make

² Quivy, R. & Van Campenhoudt, L. (2006). Manuel de recherche en sciences sociales. 3^eÉdition. Dunod.

sure that they were fitted for our purposes. We were looking for companies either in the knowledge-intensive subsector or in the business services subsector; in other words, companies either creating new ICTs or companies commercializing existing ones of services based on them. Hereunder is provided a summary of the people and companies interviewed and their function.

Organization	Type	Hosted by	Name	Function
Cagette.net	Ent.	La Ruche	Sebastien Zulke	Trainer for the software cagette and cagette Pro
Sancare	Ent.	La Ruche	Benoit Letournel	Data Scientist and co-founder
Neeuro	Ent.	raiSE	Caleb Sim	Business development
Jaga-me	Ent.	raiSE	Aaron Lee	Chief Technical Officer and co-founder
RogerVoice	Ent.	MakeSense & SenseCube	Barbara Vogel	Product owner and business developer
Les Talents d'Alphonse	Ent.	MakeSense & SenseCube	Laure-Line Rogerieux	Alphonses and Alphonsines community manager
La Ruche	SO	/	Astrid Meslier	Director of La Ruche Paris
raiSE	SO	/	Levonne Goh	Strategy intern
MakeSense & SenseCube	SO	/	Loan Cong	Partnership and events management, coordinator for awakening entrepreneurship programs

PART IV: RESULTS

We have structured the presentation of the results in three distinct sections according to our hypotheses and the literature review: the first one presents the interviewed digital entrepreneurs and their technology. The second is about the social support organizations. Finally, every aspect of the support brought or received is detailed in the third section. The last point within each section is a table summarizing important results. In this part, all the quoted words aiming at illustrating our statements have been retrieved from the interviews and translated when needed. The interviews can be found in appendix C until K.

Section A: ICT entrepreneurs

In this first section, we present the mission, vision, team and history of the digital entrepreneurs. We also provide indications about their specific digital technology.

1. cagette.net (La Ruche)

Alilo is the company who developed cagette.net, a software easing the sales, customers database management and supply chain processes for AMAPs. An AMAP is French for an *Association pour le maintien d'une agriculture paysanne*, i.e. a relationship between a producer of food (or group of producers) and a consumer, in which the latter agree to buy in advance a certain quantity of food to the former. For Galt (2013), this practice allows both parties to share the risks linked to the producer(s) activities. The point of the system is to encourage local consumption of organic food. In addition to developing the software, they also organize trainings for the farmers. The software comes in two versions: the free one, useful to sell one farmer's production online, and the pro version to manage further other business aspects of an AMAP.

For Sebastien, refusing to take on digital tools would be a danger for farmers (personal communication, May 23, 2017). He argues that if farmers cannot handle software useful for them, they run the risk of being taken over by bigger corporations.

The structure consists so far of the two founders - François Barbut and Sebastien Zulke, and Mag Alés Cowley who takes care about marketing and communication. The team has been working on cageette.net since early 2016.

2. Sancare (La Ruche)

Sancare's mission is to use machine learning to make medical care cheaper (Sancare, 2017). In order to realize their objective, they believe that machine learning and the use of medical data gathered from hospitals can ease the medical decision processes and medical care and diagnosis. They believe that their software can help "discovering and develop new treatments and therapies".

3. Neeuro (raiSE)

Neeuro's mission is defined in the following words: "To develop innovative products that empower people to live happier, healthier and more productively through the use of neurotechnology and gamification". Their social mission since 2013 is "to aid seniors, care centers, communities and health service providers with brain training" (Neeuro, 2017).

The company's main tool is a brain sensor that one puts around the forehead, which connects via Bluetooth to an app on a tablet device. Through the app, the following fields can be exercised: memory, decision making, cognitive flexibility, concentration, spatial (C. Sim, personal communication, June 13, 2017).

4. Jaga-Me (raiSE)

Jaga-me defines itself as a social business. Their line of work is "To Make Quality Healthcare Accessible For The World". In short, they goal is connect freelance healthcare workers with people in need in their households (A. Lee, personal communication, June 13, 2017). Officially launched in 2015 but active from early 2016, the project started with a 3d place in a MIT Hackathon contest. A win in the NTUC Income Future Starter 100K challenge got them the necessary funding and since then the team has been quickly growing. Currently based in a governmental-run coworking space in the same building as raiSE, they hope to find their own premises as soon as possible.

In order to fulfill their mission, Jaga-Me has developed an app for connected devices. As they were struggling to find a tailored IT solution for their needs, they took the bet to develop

most of the technology for the app in-house, combining both internal resources and partnerships (A. Lee, personal communication, June 13, 2017). Amongst the important partnerships for the development of the app, the CTO Aaron mentioned AWS – Amazon Web Services, regarding database management.

5. RogerVoice (MakeSense & SenseCube)

Olivier Jeannel created RogerVoice after a kickstarter campaign in 2014. Olivier is himself suffering from hearing impairment. When he came in France after the US, he realized how hard it was to do in Europe what he used to in the States, where things are more advanced regarding this disability (MakeSense stories, 2017). As a consequence, he decided to launch his own business, aiming at “Getting everyone a little bit closer to one another”. His targets are the “deaf and hard-of-hearing”. “Imagine a life without being able to make a phone call”, said Barbara Vogel, product developer at RogerVoice (personal communication, June 27, 2017).

At the moment, Olivier and his team have developed an app for smartphones that brings captions to phone calls in real time. Based on voice recognition technology, RogerVoice has recently attracted much attention from big players in the field: they are now working with Google and using their technology. Currently working directly with customers, the team is now betting on France’s legal obligation for big groups to have an access to hard-of-hearing customers. With that, they hope to enter the B2C market and build bigger partnerships. For instance, their technology can be adapted for websites in the form of a widget.

6. Les Talents D’Alphonse (MakeSense & SenseCube)

Les Talents d’Alphonse allows anyone to meet a pensioner or retired people from its neighborhood and to learn skills in any domain. This method has been used by the team use to fulfil its social objective: re-create links between the different generations through social inclusion (Les Talents d’Alphonse, 2017).

The idea was born in the head of the two co-founders, Thibault and Barthelemy, when they were traveling in Congo and Mexico. They realized how much in these countries the relations between elderly and younger people was a normal and daily thing, in contrast with the situation in Western countries.

The digital tool they use for their project is an online platform hosted on wordpress.com. At the moment, this tool still matches their needs. In the long run, however, the team might switch up to another platform (L. Rogerieux, personal communication, June 28, 2017).

7. Summary of the results for digital entrepreneurs

ICT enterprise	ICT subsector	Social sector	Reasons to enter a SO (section C)
Cagette.net	Business services	Environment	Scaling, networking
Sancare	Business services	Health	Unknown
Neeuro	Knowledge-intensive	Health	Founder's network, legitimization of their social activity
Jaga-Me	Business services	Health	legitimation of their social activity, partnerships
RogerVoice	Business services	Accessibility	First network and cheap premises
Les Talents d'Alphonse	Business services	Social links	Networking, reputation of SO

Table 1: Results for social entrepreneurs

Section B: Social support organizations

In this second section, we present the three support organizations, their mission and vision statement, their support structures and business models.

1. La Ruche

La Ruche is a coworking space aiming at developing collaboration between its members. On the website, La Ruche places the spotlight on its community of entrepreneurs. Their mission is to “build solutions for the future” (La Ruche, 2017). The organization opened its first space in 2008, led by a team of six amongst which former Ashoka members. More than 400 projects have been hosted so far. La Ruche can be seen as a network of entrepreneurs because of the strong community. It proposes different formulas for entrepreneurs: while some have their premises there full time, for others it might be partial and some only come on a regular basis.

In 2013, La Ruche set up its very own business incubator, called La Social Factory. Its mission can be detailed in the following words: “The social factory’s mission is to vitalize French territories through the creation of sustainable and responsible businesses, from start-up to

big enterprises”³. We mention the incubator though we have not interviewed any of its incubatee - only coworkers from La Ruche. The reason here is that Astrid Meslier, director at La Ruche Paris, told us that the creation of the incubator has led to the emergence of support programs for La Ruche (personal communication, June 3, 2017).

The social factory and la Ruche have organized a contest called Digital Impact, aiming at finding and helping entrepreneurs with innovative digital projects.

La Ruche’s business model is quite simple: privately-run organizations gets its money simply from renting office spaces according to different formula. No equity is taken from the ventures.

2. raiSE

raiSE is the short name of the Singapore Centre for Social Enterprise, set up in 2015. As the name indicates, it seeks to promote social entrepreneurship in Singapore, by providing the following services: “advisory services, programs, training and resources to sustain their growth”. Moreover, one of its main services is centered around networking between social enterprises and other actors involved in the sector. Raise’s mission is to “raise awareness and support for social enterprises, works with partner organizations to identify emerging social needs, and makes connections where relevant and useful” (Raise, 2017). Their vision is summarized in these words: “help build a vibrant social enterprise sector that is a part of a caring and inclusive society in Singapore”. raiSE was born when the Singaporean government started to recognize the importance of social entrepreneurship and emerged from two former governmental comities dedicated to that question beforehand.

Located in a start-up area subsidized by the government, raiSE is at the heart of an entrepreneurial ecosystem. Since its creation, it has gathered more than 420 social entrepreneurs. Based on a membership basis, the organization does also provide incubation services through its dedicated structure, Premises (L. Goh, personal communication, June 13, 2017). Nevertheless, in its primary form, it is a semi-governmental structure and

³ « La Social Factory se donne pour mission de dynamiser les territoires français par la création d’entreprises durables et responsables, de la start-up aux grandes entreprises ».

entrepreneurial network. We will describe the programs more in-depth in the following section.

3. MakeSense & SenseCube

MakeSense “discovers and helps amazing projects changing the world”. It is “an open project that brings together a community of passionate people”. Present in 128 cities across every continent, MakeSense defines itself as a community of social entrepreneurs – and intrapreneurs. Their range of social targets is very broad, encompassing causes such as refugees, waste management, food security, digital and education, health or women empowerment (MakeSense, 2017).

MakeSense’s business model is rather particular: the community members are volunteers. With up to 30.000 people, it has a solid reputation in the world of social entrepreneurship. The community develops different programs targeting for instance schools or big corporations, with the aim of developing social innovation (MakeSense, 2017; L. Cong, personal communication, June 30, 2017).

Started 6 years ago in 2011, the MakeSense community launched after three years its own incubator service, the SenseCube, whose mission is to “support innovative entrepreneurs that solve social and environmental issues” (SenseCube, 2017; MakeSense, 2017). Nevertheless, the fact that MakeSense members are present in a city does not involve the presence of the entrepreneurial structure, SenseCube. While MakeSense, as we mentioned, is a community of volunteers, the SenseCube functions differently – without explaining further what is asked from the start-ups. Nevertheless, no equity is taken from the start-ups.

4. Summary of the results for social SO

SO	Type of SO	Goal	Business model	Dedicated digital structure
La Ruche	Coworking – community of entrepreneurs	Building solutions for the future	Rent office space	Digital Impact
raiSE	Community of entrepreneurs	Support social entrepreneurship, tackle emerging social needs	Membership	No
MakeSense & SenseCube	Social community and social incubator	Discovering and helping people who want to change the world	Volunteer & traditional	No

Table 2: Results about the social support organizations

Section C: services provided and support process

In this third section, we focus on the support provided by SO to digital entrepreneurs. We chose to present the situation following the three locations: First, the coworkers from la Ruche, then the social enterprises of *raiSE* and finally the *MakeSense* community members. The reason for this is that we want to group different point of view about the support processes at hand in each SO, first from the point of view of the support organization itself and then from two of its members.

After that, within the paragraphs reserved for each organization, we have kept the order of the support services from the literature review: from infrastructures provision to networking, knowledge transfers and finally mentoring.

1. La Ruche and its “coworkers”

1.1. La Ruche

La Ruche is different from other coworking spaces, contends Astrid Meslier, director of the Paris establishment, the biggest of all Ruches spread across France (personal communication, July 3, 2017). The organization aims at federating a community of like-minded entrepreneurs, and therefore, some selection criteria applies to potential entrants. Their project must witness some economic viability on the long run and demonstrate potential positive impact on society or environment and innovation. Finally, any future coworkers must be ready to contribute to the activities of La Ruche through interactive presentations once or twice a year and be willing to share knowledge. Apart from that, the development phase of the venture does not matter (Fabbri & Charue-Duboc, 2013: 91). These criteria have led other people than entrepreneurs to locate in its premises, like architects for instance, if they are also involved in social projects.

With the creation of La Social Factory, La Ruche took by storm the market of social incubation, which led also to reinforce La Ruche’s support programs. These programs translate mainly into networking events, facilitated by the layout of the Ruches themselves. Events are organized in different fashion. Some are more formal, like the *Soirées Explorateurs*, *Buzz*, *Toolbox* or *Hold Up* (Fabbri & Charue-Duboc, 2013: 92). Astrid Meslier mentions numerous

conferences, seminars, trainings and workshops (personal communication, July 3, 2017). These are organized on a frequency depending of their importance. Other events are informal and coordinated by the members or the animation team, such as breakfasts or “Aperos”, a term used for early-evening meetings. Apart from knowledge sharing, events can help creating first contacts for future partnerships, get to know each other’s business, take a glance at the best way to find funding and finally find future resources such as interns. Some events are open to the public, some are reserved for the members. Information about the events is shared via a dedicated in-house newspaper.

Knowledge sharing is ensured by the events. Both members and non-members are invited to share their experience on a same basis. This is an element that Astrid Meslier considers as “differentiating” as regard with other coworking spaces. Continuity in these practices is ensured by the will of sharing knowledge of the entrepreneurs. The Soirées exploreurs are dedicated to a specific project, involving the participation of coworkers. Next to that, the Soirées entrepreneurs allow investors to get in touch with the members. The Buzz is the meeting of the community with some experts in their fields – and these can also be members: La Ruche considers that every entrepreneur is expert in a field. Moreover, practical skills can be learned from fellow entrepreneurs, such as the animation of a meeting or how to lay off employees (A. Meslier, personal communication, July 3, 2017).

Regarding more specific ICT-related skills, La Ruche does not have experts at hand, but nevertheless can help putting entrepreneurs in with expert partners. The most representative partner of La Ruche in this field is probably Orange, a French telecommunication operator. Moreover, La Ruche informs its members of forums or contests, such as Digital impact (A. Meslier, personal communication, July 3, 2017).

No mentoring is provided directly through la Ruche, but well in its incubator, the Social Factory.

1.2. cagette.net

cagette.net has been a member of the La Ruche network for a few years. They do not use the premises a main location, but principally for meetings and appointments. This is nevertheless the main reason why they entered La Ruche. They feel on the same line with La

Ruche, since cagette.net is a citizen-based initiative. Moreover, La Ruche offers them a good opportunity to showcase their product, as well as to possibly gather new resources.

cagette.net has entered digital impact through La Ruche (S. Zulke, May 23, 2017). The aim of the contest is to discover and support “Tech for good” enterprises (Digital impact, 2017). “Tech for good” is another label for what we have called social digital entrepreneurs. The contest is organized by La Ruche and other partners, so they were told about it in their coworking space. Their main reason to take part is credibility. The young company is currently looking for funding for its development, and being recognized for the way they contribute to the society can help for this purpose. They aim at becoming “a real enterprise”.

Sebastian Zulke mentioned the sharing aspect in La Ruche, as a way to meet other entrepreneurs and be part of a “tribe”. La Ruche is, in their words, a place to share tips and contacts between members. Some other events are organized, but they qualify the networking offered as “light”.

Regarding technology and know-how, La Ruche and digital impact have allowed Sebastian Zulke and François Barbut to meet experts in different fields during one or two days’ seminars, about topics directly relevant to them such as x-design - “how to make its digital tool answer the user’s requirements”. During these seminars, they also learn more on how to get funding for social enterprises. Finally, expert employees from bigger enterprises come to share their perspectives on supply chain or training. Nevertheless, for their main tool, François Barbut as a developer realized all the development himself. According to Sebastien Zulke, they “master the subject” and aim at “building a real structure to capitalize on it”.

As laureate of the contest, they benefit from mentoring, but this aspect is not so strongly developed, according to them. Nevertheless, they qualify the support provided as “adequate” in the way that they wanted to step further onto their development while “keeping hand on their business”.

Outside of La Ruche, the team of cagette.net have partnered up with a specialized agency for all financial matters including “financial forecasts and business planning”. In their words, “we build our own incubator!” They emphasize the necessity to have a competent support.

1.3. Sancare

Sancare entered la Ruche in the second half of 2017. They could not provide so much information about the support received, nevertheless they put the spotlight on two very interesting elements we found useful to bring to the reader's mind.

First, they claimed “not to receive any networking from La Ruche”. Sancare develops a specific technology based on medical centers' data and machine learning in order to make medical care and treatment more efficient. Their technology is so specific that Benoit Letournel told us that they “felt as strange as an UFO in La Ruche” (B. Letournel, personal communication, June 9, 2017).

Secondly, as we have observed from La Ruche itself and from cagette.net, la Ruche does indeed organize events and workshops in order for people to meet and share knowledge. According to Benoit Letournel, these workshops are targeting more “associative or classical” ventures hosted at La Ruche than theirs. Nevertheless, he also points out the benefits of learning about different topics than theirs – medical care and data analysis.

2. *raiSE* & its network of social entrepreneurs

2.1. raiSE

raiSE is slightly different from the other SO that we analyzed. raiSE presents itself as semi-government and issues grants and investment for social enterprises (SE). The money comes from the National Council for Social Service, a governmental Singaporean agency. raiSE aims at sustaining SE throughout the years with its numerous possibilities of funding. For grants, raiSE will look into the social impact for the beneficiaries. For investment, the following question is asked: “Are you disrupting the current pace of innovation that you are bringing to Singapore?”

raiSE's selection criteria for its members evaluate “social impact on innovation and employment” (L. Goh, personal communication, June 13, 2017). At the moment, the conditions to enter the network are the following: 20% of employees must be beneficiaries – the target audience of the SE - whereas 50% of the profit has to be directed to the beneficiaries. This definition and criteria have been built by raiSE and its funding partners, in contrast to some countries which actually have a definition of social enterprise for their

financing schemes. According to Levonne Goh, the definition and criteria are meant to be adapted in accordance with the evolution of the social enterprises' sector. Because of these criteria, many enterprises can become member regardless of their level of development.

Outside of funding, *raiSE* provides its companies with a sort of implicit label, a recognition that they are social enterprises. Levonne argues that this has positive impacts on “consumer branding and brand awareness”.

raiSE is a network of entrepreneurs but also has its own incubator as well as a dedicated coworking space, where “capacity building” – another word for networking - and “business advisory” – mentoring - are provided for the joining companies (*raiSE*, 2017).

When it comes to networking, *raiSE* organizes regular important events, such as a three day showcase of SE in the summer – or smaller events and workshops when the businesses ask for it. According to *raiSE*, these are organized “based on supply and demand”. *raiSE* also “wants to set up cross-sector partnerships”. In their words, it aims at ensuring that “social enterprises, if they’re going towards the common cause, should come together and partner to do it”. Here, the idea of collaboration is not only strong, it is the core of this support organization.

About knowledge processes and more specifically regarding ICTs, we understood that it is not provided by *raiSE*. Nevertheless, they ensure that a demanding company, in this case for digital skills, will meet the right partner for it. She gives the example of a workshop on digital competencies that *raiSE* found for some entrepreneurs.

raiSE has multiple programs towards social entrepreneurs. Just to mention one of them, Levonne was active in the “Enterprise young talent” program, aiming at finding interns for SE.

2.2. Neeuro

For *Neeuro* and its founder, joining *raiSE* is way to join its social entrepreneur's fellows. Indeed, before creating the brain-dedicated company, Eddie Chau was already a serial entrepreneur (C. Sim, personal communication, June 13, 2017; *Neeuro*, 2017). He is also board member of *raiSE*. Most of the contacts with the Singaporean center for social enterprise happened in the beginning of the company. Caleb Sim underlines the fact that

they are not an incubator, but rather a community of social entrepreneurs where members remain rather independent.

Neeuro's premises are located on the same floor at raISE, in the entrepreneurial district of One-North, close to the National University of Singapore.

Various networking events initiated by raISE led Neeuro to create partnerships with other organizations. As Caleb mentioned, "if we need any specific services from a raISE member, the raISE team will ease the process to help us find partners" (personal communication, June 13, 2017). Outside of networking, no mentoring is provided – at least now – for Neeuro.

Neeuro's technology is an advanced system of brain sensors than can monitor and aggregate the signals emitted from the brain. The company has partnered up with A*Star, the Singaporean Agency for Science, Technology and Research, for the development of their technology. In-house, they developed the hardware, working closely with neuroscientists, geneticists and artificial intelligence specialists (C. Sim, personal communication, June 13, 2017).

2.3. Jaga-Me

Jaga-Me's team entered raISE at the time where they wanted to define themselves as social enterprises. For them, it is a way to get a label that corresponds to their activities and objective. As Aaron Lee, current CTO, said: "when it happens, we get the recognition of what we are trying to achieve" (personal communication, June 13, 2017). Let us go through the support dimensions Jaga-me received from raISE.

Firstly, talking about infrastructures, Jaga-me's office is situated in the same block as raISE, their network of entrepreneurs. Indeed, on the top floor of the building is situated a coworking space named Bach where the team is hosted. Jaga-Me and its members are currently looking for another office space as they expand their business.

In the coworking space, notwithstanding the presence of informal gathering and recreative areas in a colorful design, Aaron Lee think that Bach does not organize many events of any kind (personal communication, June 13, 2017). Regarding networking, RaiSE, however, provided them with a partnership with another incubator, where they were supported for 3 to 4 months. Moreover, it led them to networking events as well as other partnerships. In

addition to that, and a very interesting element, the reader must know that Singapore is strongly run by the government. *raiSE* being a semi-governmental agency, Aaron told us that being associated with them was a “good thing in general” allowing them specially to develop “the right connections”. In Singapore, that can lead to pass some barriers more easily.

Thirdly, Jaga-Me’s technology is quite unique. Indeed, after struggling to find adequate technical implementation for their ideas of connected homecare, they decided to develop their own app in-house, with the help of Amazon Web Services for database management. Aaron himself worked in Oracle for three years before joining Jaga-Me.

Fourthly, they benefited from some mentoring from *raiSE*, drawn from their expertise in social enterprises.

In addition to the above-mentioned services, *raiSE* offers funding to Jaga-Me through government grants that the support organization is allowed to distribute between its members.

3. MakeSense & SenseCube’s communities

3.1. MakeSense & SenseCube

Within the MakeSense community, companies at any stage of development are welcome to develop their idea further or to consolidate an existing business model. More specifically, we got interested in SenseCube, the incubator of the MakeSense community. The incubator in which we conducted the interviews is in Paris, but exists also in Dakar, Mexico or in Peru for instance. Each incubator remain quite independent, notably regarding the choice of the projects. Nevertheless, they share good practices, “methodology and resources” (L. Cong, personal communication, June 30, 2017).

The incubation lasts between six months and two years, and includes a real acceleration process as well as consolidation and structuration of their businesses. During the first phase of six months, start-ups are hosted in the organization’s premises, afterwards most companies find their own. The only exception here are the “collocs” - former incubated companies that remain in the premises after the initial incubation time.

Whereas for emergence program - targeting early stages ventures - there is no selection process, incubator's members are chosen on the basis of their application. Together, they form a "promo", consisting of 8 to 10 start-ups or young companies (L. Cong, personal communication, June 30, 2017). The selection criteria are based on "the social impact", "the strengths and complementarities of the team", "the economic viability" and finally "the meeting of the venture with their potential future users".

Services provided by MakeSense and SenseCube are numerous. With regards to networking, the infrastructures host many projects of the community and are home to multiple interactions: a team is even dedicated to the animation of the place. Moreover, many events are organized by and for different target audiences. According to Loan, "The fact of being there is already networking". Just as in La Ruche, MakeSense asks its members and start-ups to participate or organize such events. Finally, we noted the existence of "apéros inter-incubateur". Through these events, entrepreneurs of SenseCube met coworkers from La Ruche for instance.

The advantages of such networking are numerous: one of them is certainly finding funding: start-ups are counseled about "raising funds, looking for subventions, asking for loans, etc" (L. Cong, personal communication, June 30, 2017). Loan mentioned the fact that an incubated start-up, because it is now labelled "SenseCube", will easily be entrusted by investors partners of the MakeSense and SenseCube networks. Finally, they propose a kind of investors-start-ups speed-dating. No direct investing is provided.

SenseCube is not a technology incubator hence it does not provide development on hardware nor the newest technologies. Nevertheless, when it comes to "digital development – platform, API [application program interface]", the incubator can ensure in-house training through its extensive network of mentors. If this is not sufficient, knowledge can be brought from partners of the SO.

Mentoring is a key element of the support. A team is constituted to follow the projects. Some are employees of the incubators while others are part of a network of experts and mentors – volunteers from MakeSense. The team ensures "collective trainings or individual mentoring" for the members. The fields of application are numerous. We already mentioned funding. Next to that, help on business model consolidation can be brought, together with

communication and marketing skills, such as CRM and associated tools. Moreover, support is provided for growth-hacking purposes and for legal aspects. Human resources management is not being forgotten with practical skills such as handling a team, “onboarding”, layoffs management, etc. Finally, mentoring covers community management or product development. According to Loan who gave us that extensive description, everything is done based on the demand of the incubatees.

3.2. RogerVoice

One could speak of a success story: after being member of SenseCube in its early stages, RogerVoice joined the Google Start-up in 2015. Since then, contacts with the MakeSense community have been less frequent. But what happened after makes RogerVoice’s story even more interesting when it comes to the support to social and digital entrepreneurs.

Olivier launched a kickstarter campaign in 2014 in order to raise funding for its idea, which was more than successful. He entered the incubator, SenseCube, after a quick talk with co-founder Alizée (MakeSense stories, 2017). The community around the incubator, MakeSense, allowed the founder to create a first network of contacts in the beginning. Moreover, the premises of MakeSense were a cheap base for Olivier and its team. As Barbara Vogel told us, the team has little money in the beginning to develop its idea. Since then, they moved to their own office.

The technology was developed in-house until they were remarked by Google on the Android Store. Since then, the Paris-based start-up has added up to 89 languages on its app, met experts in the field of accessibility and learned about legal opportunities in different parts of the world. Moreover, technologically speaking, in addition to providing the technology, Google provides mentoring about business processes. At the time of the interview, they just came back from Los Angeles to visit Google’s offices and meet specialists in their field.

But it is not over! RogerVoice is in not less than three more incubation programs or communities of entrepreneurs. The Family, a Paris, Berlin and London-based network of entrepreneurs, provides them with education as well as access to investors, while the two other acceleration programs are hosted by big corporations willing to use RogerVoice technology through partnerships afterwards. Barbara Vogel says that these programs allow to find the right contacts in big corporations. She ends the interview by stating that each

structure brings something different to their organization and that all are very complementary (personal communication, June 27, 2017).

3.3. Les Talents d'Alphonse

It was blatantly obvious for Les Talents d'Alphonse to enter MakeSense and its incubator program given the deeply embedded social aim of the business: the organization's goal is to re-create social linkages! According to Laure-Line Rogerieux, if there are many support organizations for social entrepreneurs in France, MakeSense's reputation is one of the reason of the choice (L. Rogerieux, personal communication, June 28, 2017).

While for other social businesses getting recognition through a brand like MakeSense was a goal per se, Laure-Line challenges that assertion. For her, recognition is brought by the deeds of her organization itself. Indeed, it was awarded "Les Trophées de l'économie sociale", a French prize rewarding social businesses.

The company created in 2015-16 was incubated in the SenseCube for a six months' period which, according to Laure-Line Rogerieux, was "really intense". The whole incubation process lasted for a whole year. The rest of the time happened in the premises of MakeSense in Paris.

For the team, just being in these premises is networking per se. Indeed, MakeSense's infrastructures in Paris hosts not only the incubators and its members but also the mentors, CommonSense and SenseSchool. A whole intrapreneurial ecosystem is present and interactions are ensured through regular events and trainings. Young companies continuing to use the premises after the 6 months incubating time are called "collocs". Laure-Line mentions that there are "many people with very useful skills". Another important aspect is the networking conducted outside of MakeSense. As the community manager told us, contact with other similar businesses will be significantly eased by using the MakeSense name. Thanks to that, they got access to many business opportunities.

Regarding knowledge and technology transfers, they are ensured by the incubator itself and through the mentors. As Les Talents d'Alphonse is an online platform, they got help from a dedicated web developer in the beginning and from a mentor afterwards. This allowed them to structure their processes, set up database management, conduct growth-hacking experiences, improve the website, etc.

During the incubation phase, the team was invited once a month to a breakfast with the coaches to determine the state of the projects. Outside of these informal meetings, appointments with the mentors were made on regular basis. After the incubation period, one coach still follows the team.

Finally, we were told that Les Talents d'Alphonse was going to integrate another social-driven support structure: Entropia and their "scale-up" program (L. Cong, personal communication, June 30, 2017). According to Loan Cong from MakeSense, different social-oriented SO are trying to work closely together in order to create a support path for social businesses, with a "smart differentiation" according to her.

4. Summary of the results for the services *from* the support organizations

Name	Infrastructures	Networking	Technology and knowledge transfers	Mentoring
La Ruche	Coworking space	Many events, formal & informal Networking at all time in the premises	By members Through events Through external partners	Through digital impact or the dedicated incubation structure: La Social Factory
Cagette.net	For appointments and meetings	Considered minor	Meeting of experts through digital impact	Little through the contest digital impact, but considered adequate
Sancare	Not on a regular basis	Considered minor	Through workshops	/

Table 3: support services in la Ruche

Name	Infrastructures	Networking	Technology and knowledge transfers	Mentoring
raiSE	/	Important events on a regular basis Smaller events based on supply and demand	Partnership with experts in relevant fields	/
Neeuro	In the same block	Found partners in events	/	/
Jaga-Me	In the same block	Found partners and other support initiative	/	From raiSE's expertise in social enterprises.

Table 4: support services in raiSE

Name	Infrastructures	Networking	Technology and knowledge transfers	Mentoring
MakeSense & SenseCube	Premises together with the SenseCube	Many events, formal & informal Networking at all time in the premises	About basic digital skills – with the mentors	Through SenseCube
RogerVoice	In MakeSense offices in the beginning	First business network	/	Through SenseCube
Les Talents D'Alphonse	In MakeSense offices	Networking at all time in the premises Use of MakeSense's network of social enterprises	With the mentors	Through SenseCube

Table 5: support services in MakeSense & SenseCube

PART V: DISCUSSION

In this part, we will aggregate the above-mentioned indications in order to bring useful insights to answer our research question. More specifically, we will firstly compare elements of the literature with our findings from the interviews. This time again, the threefold structure from the literature structure has been kept, but we have aggregated the information following our hypotheses. Then, we will present a first answer to the problematic, before bringing to the reader's mind some useful thoughts on social entrepreneurship support. Finally, we present some limitations of the present study.

Section A: Comparative analysis

In this first section, we compare elements of the literature with our empirical findings.

1. ICT entrepreneurs

It is important to realize that as we are targeting digital *and* social entrepreneurs, elements of definitions need to be taken from the two subsectors that were identified from the literature.

1.1. Digital entrepreneurs & ICT subsectors

If we take back our two subsectors, we found the following: all our companies are focusing on providing a service to final users. In this case, we would describe them all as belonging to business services oriented subsector. Nevertheless, we need to precise that some of the interviewed organizations exhibit strong elements of the knowledge-intensive subsector. Firstly, it is certainly the case for Neeuro, working on a technology in collaboration with a research agency, A*Star. Their brain sensor for which they developed the hardware makes that enterprise an ambassador of a knowledge-based industry. Although we might characterize cagette.net as packaged software, François Barbut being a self-made developer is not enough to characterize their product as knowledge-intensive. The software aiming at facilitating local farmers and food producers' operations is more a one-of-a-kind ERP.

In the business services-oriented subsector, RogerVoice took advantage of an existing technology, voice recognition, to build a company. Sancare applied machine learning to hospitals' huge databases. Jaga-Me developed an application to connect homecare workers

and beneficiaries. Les Talents d'Alphonse used wordpress to host their platform connecting elderly people with curious youngsters.

1.2. Application of ICTs for social / environmental causes

We analyzed different areas in the field of sustainability in which ICTs could play a role: social justice, access to health services, education or commerce. Moreover, we also include environmental in the sustainability dimensions, in line with Goswami (2014) and Denis (2014).

Within this framework, contributions of the interviewed companies are easy to spot: while cagette.net is involved in environment sustainability through its unique contribution to local and organic farming, Jaga-Me, Neeuro and Sancare are active in the health sector. RogerVoice targets accessibility of hearing disabled people and Les Talents D'Alphonse aims at improving the retreat of elderly people. Both could qualify their actions as contributing to social justice.

It makes little doubt that the actions of the abovementioned organizations are in line with the definition of social entrepreneurship that we developed in the second subsection of the literature review. Indeed, engaged through innovative process to fill social gaps identified by them, they seem to “act boldly” to fill their social mission.

2. Support organizations

2.1. Type of support organizations analyzed

La Ruche depicts itself as a coworking space. Nevertheless, discussions with Sebastien Zulke from cagette.net and with La Ruche Paris director Astrid Meslier revealed that the most important aspect of La Ruche is the community of entrepreneurs around it. In Singapore, we analyzed the government-funded center for social entrepreneurship, which could be described as a community of entrepreneurs, an extensive network of like-minded people. Finally, MakeSense is an international community for social entrepreneurship, whether it happens in start-ups, larger corporations.... Or whether it hasn't even started! SenseCube though is a proper incubation service for start-ups.

Our choice to consider similarly any form of SO has been confirmed by the similar kind of services that they provide. Finally, none of the selected SO is specifically affiliated with a dedicated research center.

2.2. Social support organizations? A classification based on goals.

Regarding the social companies, a look at their mission statement should convince the reader of their social nature. La Ruche is “collaborative coworking space where a community of entrepreneurs are building solutions for the future”⁴ (La Ruche, 2017). At MakeSense, the aim is to “Discover and help amazing projects changing the world” (MakeSense, 2017). Finally, raISE has been created to “develop the social enterprise sector in Singapore” (raISE, 2017). This mission statement could not be closer from our definition.

In general, the three of them aim at supporting innovative solutions for social / environmental challenges. This corresponds to the idea that that has been depicted as “dealing with social gap”: where there are social problems, there are opportunities as well.

Let us recall the goals of traditional SO – job creation, innovation and emergence of new technologies, economic development, new ventures creation and profit. Regarding these, we see that innovation is the main similar element of comparison, common for our three SO. raISE also have a goal of economic development embedded in its mission statement. Nevertheless, we argue from our interviews that social SO can contribute to these above-mentioned points, but it is not their main objective.

2.3. Business model

La Ruche is a private initiative. In order to make sufficient profit to sustain its activities, it rents office space, just like a regular coworking space. It is actually more exact to say that La Ruche is a community of entrepreneur using the business model of a coworking space. Secondly, although raISE is publicly funded, it still charges the ventures an annual fee to be paid to remain active member of the organization. This ensures the functioning of the center, while the funds allocated to the social enterprises are public. Thirdly, while MakeSense functions with volunteers, SenseCube is a private incubator where ventures should pay for the services. None of the three abovementioned SO takes any participation in the equity of the digital entrepreneurs’ businesses.

⁴ « un espace de coworking collaboratif où une communauté d’entrepreneurs construit des solutions d’avenir »

3. Services provided in social support organizations

3.1. *Reasons for companies to seek support*

Firstly, cagette.net main motivation to join a coworking space was to have a place for meetings and appointments. Then, they chose specifically La Ruche because of a common state-of-mind about social and environmental purposes. This similarity about values is also the reason that brought RogerVoice to MakeSense (MakeSense stories, 2017). According to SenseCube, some companies come here to look for new resources, notably interns.

Secondly, in Singapore, Neeuro and Jaga-Me were both looking for a recognition of their work and of the fact that they are social entrepreneurs. raISE gave them that opportunity, also highlighted from the center for social enterprises itself. Sebastien from cagette.net also mentioned the legitimacy brought by La Ruche and the contest digital impact, just like Les Talents d'Alphonse. For the software producers, that legitimacy is helping to get funding for their development. The Singaporean businesses mentioned the funding aspects, but not as a main reason to join their SO.

We can consider true the assertion that companies come in social or traditional structures from pretty much the same reasons: tackling a lack of internal resources. Moreover, in the Singaporean context, being recognized can be a sufficient motive to enter such an organization. That legitimacy looks like a very important aspect for most of the companies interviewed: it seems a-priori more important than for ICT entrepreneurs in traditional support organizations.

3.2. *The importance of company and context specific factors*

We consider a twofold approach for this point. Obviously, the social dimension of our entrepreneurs is taken into consideration by the SO: it is their *raison d'être*. More useful for our purpose, we wondered if they provide specifically adapted services for digital entrepreneurs. The answer brought by the SO and the businesses themselves could be summarized as such: it functions according to the needs. In raISE, workshops are found whenever asked by the members, just like in MakeSense, while La Ruche always finds the necessary partners to help its coworkers. While MakeSense and raISE did not have specific program for digital entrepreneur, we were told by Sebastien about the contest Digital impact,

which is a dedicated program for these “Tech for Good” enterprises. In the workshops organized for the laureates, experts tackle ICT-specific questions.

Our second point is was to determine if any attention was given to local, regional or national context. We realized it was the case with MakeSense for instance, and the multi-incubation aspect that we will tackle in the third section. Indeed, MakeSense and its incubator are working hand-in-hand with other support services to make what Loan Cong called “a smart differentiation” of services. Moreover, in raiSE, entrepreneurs are told how to navigate into Singapore politically intricate context, to get funding for instance. Finally, La Ruche and MakeSense went as far as organizing meetings between their members, which had then all ground to create synergies between their ventures.

Therefore, with respect to the two points above-mentioned, we can say that in the social SO and the analyzed cases, attention is drawn to adaptation to specificities of the companies as well as on the contextual factors, local, regional or national.

3.3. Physical dimension and infrastructures provision.

In la Ruche, the layout and informal spaces directly aim at making people meet and share. Then, it is up to the members to use the premises full time or not. In SenseCube, the fact of being hosted in together with the whole community of like-minded MakeSense entrepreneurs allows for strong contacts to be established. At raiSE, though the two interviewed companies were not incubated or using raiSE coworking space, their premises were just a few doors away. Nevertheless, that was no dedicated sharing place in the layout of the blocks. Just like in Singapore, MakeSense offices are offered at a subsidized rate, making it a good option for start-ups: RogerVoice and Les Talents D’Alphonse benefited from cheap rates.

Not surprisingly, this dimension is *stricto sensu* similar to what we retrieved from the literature on entrepreneurs hosted in different kinds of support organizations.

3.4. Networking and community

We have learned that in traditional support organizations, informal meetings were often the cornerstone for later strategic contacts. In La Ruche, we argue that it is the case with the numerous events organized throughout the year. As stated in the previous part, the events

have been categorized according to their formal character, and give the opportunity for entrepreneurs to exchange about different issues. Nevertheless, we want to emphasize the fact that most events happen in Paris, where the ecosystem is the most developed. Hence, whenever incubated in other Ruches, entrepreneurs like the ones of cagette.net might feel less supported than advertised by La Ruche Paris. The example of Sancare shows that, because the organization feels different from other coworkers, it feels left out when it comes to networking. In MakeSense, the assertion is true as well with the continuous contacts between members of the ecosystem described by Loan Cong and Laure-Line Rogerieux. Networking events are finally organized by raISE on a regular basis as well.

Advantages have been mentioned by the social entrepreneurs. Neeuro for instance has met some partners through raISE networking events. Jaga-Me came to meet other SO with incubation programs that they followed for a few months. For Les Talents d'Alphonse, a real benefit was to be able to meet easily other similar businesses thanks to the name MakeSense. This corresponds to the collaboration we mentioned. Enhanced competitiveness through networking is hard to measure, and no word was said about internationalization. Networking is very often linked to sharing practices, talking about one's business and activities and is therefore a source of knowledge for Les Talents d'Alphonse.

Networking has one effect that we did not spot through the literature review: it makes companies reflect on their path and understand their level of development, as it is the case for cagette.net or as MakeSense told us. Finally, we found a point of disagreement with the literature. We said that networking usually did not lead to funding, but La Ruche and MakeSense host activities especially for helping their start-ups to find financial support.

3.5. Technology and knowledge transfers.

We mentioned Neeuro as belonging to the knowledge-intensive ICT subsector. Here, transfer of knowledge are expected to be based on relations with research centers. Neeuro worked closely with A*Star, a research agency from Singapore, to develop brain sensors, an advanced technology involving neurophysics. Therefore, this can be qualified as an analytic transfer of knowledge. Contacts with A*Star were not initiated by raISE though, but by the founder Eddie Chau before even the creation of the center for social enterprises. We mentioned cagette.net in the first point, but as the development of the software was entirely in-house,

no analytic transfer of knowledge happened at all. This confirms that their product belongs to the service-oriented subsector.

The fact that there are no formal relations from any of our SO with research centers is an important difference with the technology incubators and science park that we described in the literature review. Nevertheless, it did not prevent Neeuro to develop a brilliant technology.

The rest of our digital entrepreneurs are thus subject to synthetic transfer of knowledge. As we stated, these could happen in different ways: from external business partners through networking, from fellow companies or from the support organizations themselves.

While Sancare is in direct collaboration with hospitals, cagette.net treats with producers and local farmers on a daily basis. Nevertheless, these are not specially facilitated by the SO; it is the heart of their social mission. Same goes for RogerVoice, the partnership with Google has been found by them and not through MakeSense. Nevertheless, seminars, fairs and other events are place for basic skills to be learned and exchange, just like for other traditional SO.

Learning from fellow companies is at the heart of La Ruche functioning. In raiSE, there is a focus on building partnership between members so that they realize their social goal together. According to Sancare, it is a good thing to learn from other topics than theirs through networking events. Jaga-Me regrets the absence of more events organized to meet fellow entrepreneurs with whom they could exchange. For Les Talents d'Alphonse, being surrounded with the MakeSense ecosystem is a way to meet people with "very useful skills".

Finally, MakeSense's start-ups can call upon specialized mentors from the network to train companies in ICT-related skills such as platform or website development, API or other digital tools. La Ruche, through the contest digital impact, organized trainings on subjects such as x-design and user experience.

3.6. Mentoring

La Ruche does not provide mentoring to the coworkers. The case of cagette.net is specific to their award in the Digital Impact contest. In raiSE, members benefit from "business advices" but neither of the interviewees at Jaga-Me or Neeuro could tell us more about the specific services. Most of the mentoring is present in the SenseCube of MakeSense: there, even after

the incubation phase, Les Talents D'Alphonse are still in contact with their mentors, regarding business plan, growth hacking, development of the community and business.

Just like in the literature, mentoring remains a broad and general topic. In the case of MakeSense only, many dimensions were explicated and it confirmed that any business topic could be brought up under that name. No specific reference to speed or access to market in our interviews, although it is an important point of support in traditional organizations. This is perhaps linked with the nature of social entrepreneurship, where collaboration is a motto. Mentoring was not described here either as a key element of the support, but it is enough to assume that it is “of little significance”, like Tamasy?

In contrast to what was found in the literature, the solidarity and smart differentiation set up in the world of social entrepreneurship makes the critic of Demick and O'Reilly about enhanced competition irrelevant.

Section B: A proposition of answer to the research question

In the previous section, we detailed aspects of support for digital entrepreneurs in social organizations. We will now compile some of these elements to will bring a proposition of answer to our problematic – that we recall in the following words:

How are ICT entrepreneurs supported in social-driven support organizations as compared to traditional ones?

First, our analysis led us to think that regarding infrastructures provision, networking and mentoring, social support organizations provide similar services to digital entrepreneurs as traditional SO. Secondly, regarding technology and knowledge transfers, we have to make a distinction. When it comes to synthetic transfers of knowledge, aiming at business or services-oriented enterprises, social SO provide similar services to traditional structures. Nevertheless, regarding analytic transfers of knowledge, links between social support ventures and research centers were thin, perhaps thinner than in the case of technology-based science parks and incubators – as described by Tamasy (2007).

This research question led us through a more general analysis on social support organizations, their characteristics and objectives, and on social entrepreneurship. We found out that the motives of social SO were different from those of traditional SO. Finally, the reasons leading social entrepreneurs to enter such organizations were similar in all but one way: for them, the most important aspect seems to be recognized for their work.

Next to our research question, we want to emphasize some key findings. Firstly, it is possible for different ICT companies to be followed by a social structure: in MakeSense, digital skills can be taught by dedicated mentors while in La Ruche and MakeSense, a strong networking can bring demanding companies with experts in the field. Secondly, being followed or partially followed by a social SO might bring them a lot more than the support dimensions we used in the analysis. We will analyze these specific elements in the following section. Thirdly, we found interesting to note that all the chosen SO had each time incubation possibilities combined with an even stronger community spirit. In this way, once the most intensive part of support is over, the social business is not being left out but remains an active part of a vibrant community for its lifetime.

Section C: Unthought perspectives

In this section, we analyze specific elements that were not part of the literature on digital entrepreneurship support in traditional SO. These elements include the recognition of the work of a social entrepreneur, the surprising process of multiple support and finally the solidarity and collaboration at play in the sector of social entrepreneurship.

1. Recognition of the social work

Being recognized, having a legitimacy as a social entrepreneur is a very important aspect for the companies interviewed. It might be a way to connect with other companies or to get access easier to funding. In any case, it seems a-priori more important than for ICT entrepreneurs in traditional support organizations. That point could be further analyzed in a more detailed paper.

2. Multiple support

Many of the digital entrepreneurs do or did undertake a multiple support experience from multiple SO. RogerVoice for instance is mentored by Google but member of no less than

three other entrepreneurial support programs. According to them, the different SO are very complementary. MakeSense gave us the example of EasyGame, a business that experiences a double incubation: one is for hardware and technical development and the other one for business purposes – with MakeSense. Finally, cagette.net has requested help from another organization for structuring the financial part of its business. In Sebastien Zulke's words, they created their "own incubator" (May 23, 2017). Jaga-Me also went through multiple shorter incubation programs while being member of raiSE.

3. Collaboration and solidarity

We noticed two particularly interesting aspects linked with collaboration and solidarity, completely absent from the literature on traditional support organizations. First, raiSE wants to "set up cross-sector partnerships, to make sure that social enterprises, if they're going towards the common cause, they should come together and partner to do it". This idea of sharing, which is here even pushed further, is also at the heart of La Ruche. In both La Ruche and MakeSense, the applicants must be willing to share their experience – la Ruche talks of expertise – in their domain. Therefore, it might be particularly interesting for digital entrepreneurs to set up at least a partial support from social-driven SO, as they may benefit from that sharing golden rule. Another example are the "apéros" of La Ruche with MakeSense.

Secondly, collaboration is linked to the previous point about multiple support. Here, support organizations themselves work together to offer a complete entrepreneurial path for any types of entrepreneurs. For instance, Les Talents D'Alphonse's next step is Entropia, with whom MakeSense is in close collaboration. MakeSense also has links with Ticket for Change, another SO. According to Loan Cong, their aim is to offer a complementary offer for all ventures regardless of their development and maturity. This is the idea behind what she called "smart differentiation".

Section D: Limitations

Despite a rather narrow topic, this thesis presents an exploratory outlook on the support brought by social SO to digital entrepreneurs. It has open the way for new perspectives on some interesting elements, notably the ones mentioned in the previous section: the

importance of the recognition of entrepreneurs' social work, the multiple support opportunities and finally the entrepreneurial path in social SO. In this section, we present two more limitations to our approach.

Firstly, one limitation is certainly the fact that in the choice of the ICT companies, we came across more services-oriented cases by contrast with knowledge-intensive enterprises like Neeuro. Nevertheless, we conducted an extensive research to find the interviewed companies, so it poses the following question: why is there not more knowledge-intensive enterprises present in social support organizations? Is it linked with the fact that there seems to be less links with research centers? Perhaps there is a psychological dimension which makes a specific sector of the ICT industry fly away from social purpose? We have shown in section B that services provided by social SO could fit the case of Neeuro: similar cases might occur as well.

Secondly, we realized that the perception of the services offered by support organizations could vary a lot depending on the enterprise itself and the use of these services. For instance, the networking offered by La Ruche is not seen as a key element by neither of the two members we interviewed. Therefore, our study calls for a more quantitative dimension to compare the perception of the services by entrepreneurs with the statements of social support organizations.

PART VI: CONCLUSION

This thesis provides several elements of answer to a specific question: how to support digital entrepreneurs in social support organizations. Since that question was not satisfyingly treated in the literature, we created a theoretical framework based on the literature for the support of ICT entrepreneurs in business or technologic SO. After having done this, we realized interviews to have an empirical base for comparison. This study led us not only to study the support dimensions, but also the digital entrepreneurs and the support organizations themselves.

Firstly, regarding the technologies themselves, we found out that ICTs were used in many different ways to tackle social or environmental needs. Most of the ICT companies we interviewed were providing services and exploiting existing technologies rather than developing new ones. Nevertheless, in each case, innovative solutions were proposed thanks to digital tools and technologies.

Secondly, when it comes to social support structures, we noticed that innovation was an important element across all kinds of support organizations. Then, having similar values is a key to attract social entrepreneurs in a SO. Moreover, a support structure able to bring recognition and legitimation to social entrepreneurs is also more likely to succeed. These support structures were of different types but providing many similar services as we will see afterwards. All of them aim at supporting social entrepreneurship and developing communities of like-minded actors to shape tomorrow's world. In this particular context, synergies are easier to spot and exploit through extensive sharing of good practices. It is furthermore often a condition to become member. In these structures, dedicated trainings could be provided to digital entrepreneurs through partnerships, mentors or projects but developing new technology was not their initial goal.

Thirdly, we concluded that the support provided in social structure was in many ways similar to the one provided in traditional SO. However, there were two main differences. Firstly, analytical exchanges of knowledge are not as developed as in technology-based incubators, but nevertheless possible (the case of Neeuro). Secondly, collaboration and dynamics of sharing were much more cultivated in social SO.

Bouncing back on these findings, we can draft recommendations for digital entrepreneurs. Two consequences can be retrieved from the previous paragraph: firstly, support for ICT entrepreneurs is possible in social support organizations. Then, if the digital company has some social or environmental perspectives, it should consider a social support program in order to benefit from some aspects that are more developed in the world of social entrepreneurship. These include a strong sharing mindsets from the entrepreneurs, a strong capability of networking from the SO, leading to the creation of strategic partnerships and a long-lasting support in time within their communities. We noted that the support in social SO could be total or partial, if the venture is already helped by another entrepreneurial program.

These unexpected aspects are important since they could lead to further research. Alongside with these, the following dimensions could also be considered: what happens after the support period in traditional and social SO; why are there so few knowledge-intensive ICT companies are hosted in social SO; what are the advantages of the collaboration dynamics in the social entrepreneurial sector; what is the impact of countries in the development and definition of social entrepreneurship; how to quantify the perception of services for entrepreneurs as compared with the offer of the SO.

As a recommendation for social SO wishing to host more digital entrepreneurs, they should reinforce their links with research centers and continue to put a strong emphasis on the social work they realize throughout the world. For traditional support organizations, good practices can be drafted from this paper and adapted, notably regarding the sharing dynamics at hand.

On a personal level, we are happy to have discovered so many ways in which ICTs could be used for a greater good. The world of social entrepreneurship is hosting innovative companies and dedicated people. It also provided us with useful contacts for future collaboration with many enterprises in France and Singapore. Writing this thesis has been truly enriching: it was really inspiring to meet people who do everything to fulfill their social mission.

We will conclude this thesis with the words of As Aaron Lee, CTO of Jaga-Me: “I think all companies are in motion towards social entrepreneurship, and I think there shouldn’t be a difference. If you’re not developing social value now, when will you start?”.

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