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OPEN SOCIAL INNOVATION: CHALLENGES AND OPPORTUNITIES

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This paper presents and discusses the various definitions, paradigms and perspective of Open Innovation on one hand and Social Innovation on the other hand, the role of the different actors and key approaches. Then, it is introduced and derived the definition of Open Social Innovation (OSI), as a unified approach, which would lead to sustainable growth. There are investigated good practices of open social innovation at the regions participating in INTERREG EUROPE project “OSIRIS-Open Social Innovation policies driven by co-creative Regional Innovation eco-systemS” along with a methodology to peer review their potential on adopting Open Social Innovation.

Keywords

Open Social Innovation, Peer Review, Potential, Regional Growth

1. Introduction

The current paper makes an effort to better describe the definition of open social innovation, as little information exists in the bibliography. However, before presenting the definition of open social innovation, the reader has to be familiarized with the meanings of open and social innovation as separate and distinct definitions. Moreover, we discuss and present the importance and the role of the “key players” in fostering open innovation in a region, namely, the public and private sector, the academic world and the wider community. Indeed, the common collaboration of these entities is crucial for the promotion and adoption of open social innovation in a region. In addition, some key approaches to social innovation in relation to EU funding initiatives will be presented.

In the last part of the paper, open social innovation will be examined as the main motivator of regional development. It is widely accepted that innovation is the main and valuable cause of growth in a region/country and it is also a useful tool to address global challenges and social issues. Regions are seeking to sustain their economic and social development increasingly through innovation. They launch and implement strategies and policy instruments built on their strengths and overcome their weaknesses. Such an initiative is presented here, it is the EU funded project, “OSIRIS-Open Social Innovation policies driven by co-creative Regional Innovation eco-systemS” (INTERREG EUROPE). This project, through the implementation of a series of activities, aims to improve the current open innovation policies of the participating

in the project regions through co-creative regional eco-systems for innovation, co-creative cyclic good practices such as the innovation loop and the peer review process.

This work puts special emphasis to the peer review process, which will be implemented with the contribution of the regional stakeholders and representatives from public and private sector, academia and the wider community. The outcomes from the peer review process aim to provide analytic assessment and policy advice for examining regions, evaluate the strength of the regional open social innovation system, the region's needs, and the strategic usage of the region's resources.

2. Open Innovation

Various definitions exist for "open innovation" with the one of Henry Chesbrough's to be the most widely used and accepted. This terminology was introduced in his book "*Open Innovation: The new imperative for creating and profiting from technology*, 2003 [1]. Later on, Chesbrough further defined open innovation as the implementation of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. Open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology [2].

Any open innovation process is consisted at least of research and development stages. The research phase includes, in most, times inputs from the outside boundaries of the company [3]. Many companies have already provided successful examples of implementing the open innovation model to solve problems and adopt innovative solutions such as IBM that patterned with other companies to develop semiconductor technologies [4]. Apple and P&G implemented open innovation to develop new products such as the early iPad and Swiffer; and many other good practices.

According to Chesbrough, when a company adopts open innovation, the organization's boundaries become permeable so that to allow interacting and combining the company's resources with the external co-operators. On the other hand, the closed innovation companies innovate by using only their internal resources, in most of the times inside their R&D department; so during the innovation process, all proposed ideas are evaluated and only the most promising ones are selected for their development and commercialization. In this case the ideas, inventions and suggestions are generated within the company. However, when applying the open innovation system, the company can use external resources, such as advances in technology and at the same time company makes available their own innovations to other organizations.

From another perspective, open innovation should be viewed as a two-way process, where companies have an inbound process in which they bring in ideas, technologies, or other resources needed to develop their own business and an outbound process in which they out-license or sell their own ideas, technologies and resources [5]. This two-way approach should take place during all stages of the innovation process. Other authors, state that the basic requirement for open innovation is opening up the innovation process [6]. Moreover, companies should cooperate with organizations activating in their region (universities, researchers and consultants) and exploit the knowledge and experience of their customers [7]. Often, open innovation is described as the integration of consumers and users, or even competitors, to make use of the wisdom of crowds [8].

2.1 Different Actors in Open Innovation

Open innovation is most likely to succeed when the needs and opportunities of the entire innovation ecosystem of sources and supporters are organized in such ways that foster both competition and collaboration. Therefore, the public sector, the financial sector, the innovative businesses, academia and citizens have an essential role to play in delivering and promoting open innovation [9]:

- The public sector creates the regulatory environment and the legal framework and provides incentives, so that all the other actors to be able to operate. It enables the diffusion of knowledge and fosters common collaboration. Moreover, it provides a collaborative environment among the economic actors involved in order to enhance productivity and value.
- The financial sector. The access to funding sources is a common barrier for the owners of innovative ideas. The creation of a friendly financial environment -providing tools, funding schemes and enabling the operation of funding organizations- would significantly contribute to the support of open innovation. It is widely accepted that investors of all kinds are willing to invest in innovation.
- Innovative businesses. In order the businesses to be able to bring innovations to the market, they want to be able to maximize their returns on the resources allocated to innovation.
- Academia. Research centers, universities and higher education institutions have a key role in the innovation eco-system, both as knowledge producers and as a pool of skilled human capital. Challenges for this part of the ecosystem refer to the co-creation capabilities of universities, the design of incentives for academics when working with users and the absorptive capacity of academic knowledge within firms.
- Citizens/community. Citizens and civil society organisations have an important role to play in bringing innovation to the market. They create a demand for innovative products and services and their needs provide the directions where innovation has to be driven. Therefore, they perform the source of innovative ideas and play a crucial role in what research is meaningful to them and can impact their lives.

3. Social Innovation

There is a vague on what could be categorized as social innovations and what the difference to the general innovations is. There would be included new products, services, markets, processes that meet needs of society and provide to the general public new and improved capabilities so that to better exploit their assets and resources. In other words, social innovations are both good for society and enhance society's capacity to act [10]. They could stem from the citizens' inventiveness, civil society associations and needs, local communities' activities, businesses and services. They meet the requirements of both the public sector and the markets, so that the produced products and services satisfy both individual needs but also collective aspirations. Social innovation has to respond to social needs to produce better social outcomes. Social Innovation is consisted of four main elements: [11]

- Identification of social needs and society's requirements

- Investigate, design and develop novel approaches and solutions in response to these social needs
- Evaluating the effectiveness of the suggested solutions and their correspondence to the needs and requirements
- Scaling up effective social innovations.

3.1 Key definitions for Social Innovation

European Commission has put much of focus on social innovation and Bureau of European Policy Advisors (BEPA) suggested the following three approaches towards social innovation [12]:

- *Social demand innovations*, are dealing with social demands that are usually not addressed by the market or existing institutions and are addressed towards vulnerable social groups. These innovations develop new approaches in order to overcome problems affecting young people, the elderly and socially excluded people and others.
- *The societal challenge* perspective focuses on innovations for society as a whole through the integration of the social, the economic and the environmental needs.
- *The systemic change* focus, is achieved through a process of organizational development and changes in relations between institutions and stakeholders.

Social innovation is considered distinct to economic innovation; because social innovation “is not about introducing new types of production or exploiting new markets for the sake of exploiting them, but is about satisfying new needs not provided by the market (even if markets intervene later) or creating new, more satisfactory ways of insertion in terms of giving people a place and a role in production” [13]. Based on LEED’s Forum “social innovation seeks new answers to social problems by: identifying and delivering new services that improve the quality of life of individuals and communities” and “identifying and implementing new labour market integration processes, new competencies, new jobs, and new forms of participation, as diverse elements that each contribute to improving the position of individuals in the workforce” [13].

Furthermore social innovation is defined as the creation of long-lasting outcomes that aim to address societal needs by fundamentally changing the relationships, positions and rules between the involved stakeholders, through an open process of participation, exchange and collaboration with relevant stakeholders, including end-users, thereby crossing organizational boundaries and jurisdictions [14], [15],[16],[17],[18].

But social innovation requires the intervention of private sector, where co-creation is based on two trends. Corporations are challenged to produce their goods more efficiently. As a result, end-users are defined as possible co-producers who have specific role in the production chain [19], [20], [21]. In addition to this, end-users may become co-creators whose experiences with products or services could have added value for a company. End-users are an interesting source of product and service innovation. As a result, research showed that co-creation not only influences customer satisfaction and loyalty, but also lead firms to achieve competitive advantage [22]. On the other hand, for the public sector, these end-users are citizens. According to the European Commission [23], social innovation mobilizes each citizen to become an active part of the innovation process. If citizen participation is considered as a necessary condition for social innovation in the public sector, it is important that we have

systematic knowledge regarding the conditions under which citizens are prepared to embark on the 'social innovation journey' [24].

4. Open Social Innovation

Chesbrough defines open social innovation as the application of either inbound or outbound open innovation strategies, along with innovations in the associated business model of an organisation, to meet social challenges [25]. Open social innovation can occur using the collaborative processes of open innovation to generate benefits for the collective good (represented by new solutions to social problems or changes in social practices). The process of open innovation also stimulates new innovations generated at no cost which can be replicated in other contexts. This process can also result in the formation of collaborative networks in which it is possible to provide innovative ideas and exchange knowledge and ideas with individuals from other contexts and locations. [26]

Open innovation can create better solutions for social needs. As Chalmers (2013) demonstrates [27], increasing the number of users in the generation of social innovation through open innovation, mitigates the risks of introducing innovations because they are generated from a wide range of expertise that complement each other. To evaluate this proposition, social challenge ideas or other cases of open innovation could be investigated with respect to their impact in a specific area. Focusing on regional level, according to Neumeier (2012) [28], the problems of a region and the necessary actions to address them, are better perceived by the citizens of this region. The implementation of strategies based on such local perceptions is attracting more attention from public administration officials. In the case of the social challenge ideas, an analysis of what can be extracted from the suggested ideas and how the government uses this information may indicate how the knowledge captured in a network can be used in collaboration with public management.

The definition of open social innovation is not yet mature and widely accepted. We could better describe it, if we take as principle that open innovation achieves efficiency and effectiveness and social innovation meets social needs and lead to changes in social practices. Within an open social innovative environment is crucial the collaboration among private and public sector after having feedback from the community regarding their needs.

4.1 Regional Open social innovation

The openness of innovation processes for external expertise, which includes the broad participation of stakeholders, is central in the open innovation approach. Opening up innovation processes purposely for additional knowledge and ideas from outside has become an important strategy for leading industries to cope with changing environmental conditions and to compete effectively in the market [29,30]. Open social innovation strategies are used to open regional innovation systems and to enhance the innovation ecosystems at various European regions.

An initiative towards open social innovation is the EU funded project "*OSIRIS-Open Social Innovation policies driven by co-creative Regional Innovation eco-systems*" (INTERREG EUROPE) [31]. OSIRIS aims at improving design, rapid delivery and implementation of open social innovation policies and action plans through co-creative regional eco-systems for

innovation, co-creative cyclic good practices, the innovation loop and peer review process. Policy-makers' innovation management skills and co-creativity will be accelerated by interregional collaboration in focused sectors and disciplines, adopting the penta-helix model (government-research-business-citizens-society), empowering the public information sector. Therefore, within the frames of the project, several activities have and will take place (it is an ongoing project) in order to identify open social innovation good practices in each region and examine the regional potential to promote and adopt open social innovation practices. For this purpose, a peer review process was designed, to investigate the stakeholders view and perspective of each corresponding region and co-product recommendations and guidelines to support policy-makers to design and implement open and collaborative government environments for open and social innovation, to boost regional innovation development and raise the innovation leadership competence.

4.2 Peer review methodology

Generally speaking, peer review is the detailed evaluation of a task, a project or policy by one or more people of similar competence to the producers of the task/project/policy (peers). It constitutes a form of self-regulation and self-assessment by qualified members of a profession within the relevant field. Peer review approaches are employed to maintain standards of quality, improve performance and provide credibility.

Within OSIRIS, we design a peer review process to investigate the potential of involved regions in open social Innovation. We have identified the stakeholders to whom the interviews for the peer review process are addressed: innovation facilitators, representatives of private companies, research institutes, universities, representatives of regional authorities responsible for launching policy tools, representatives of regional development agencies and any other stakeholder consisted the penta-helix model at regional level. The competence fields under consideration are: regional policies and initiatives, education and human resources, innovative environment, innovation leadership, partnerships, social environment and needs, open social innovation. The peer review process is applied in an open co-working event where all the stakeholders of each region participate. The event starts with the in depth presentation and study of the definitions of open and social innovation, then stakeholders reply to the questions dealing with their own region, they present their problems and barriers that they have faced. Much attention is put in investigating whether the regional policy framework, as it is outlined by the RIS, encourages and allows them to implement open social innovation practices and it is asked them to identify towards which direction the open social innovation initiatives should be focused on their own region.

In briefly, the regional stakeholders have to study, justify and reply to the following questions:

- Which is the main problem in your region that hinders open and social innovation?
- Which are the main challenges that OSI would meet?
- How does the region support and enhance cooperation of different actors in order to foster open innovation based on social aspects?
- In which fields are mostly met the social needs, where innovation can play a significant role?
- Which are the policy tools responsible for the financial support on regional innovation?

- What measures should be further facilitated by the regional authorities /decision making authorities in order to enable your organization to promote regional open social innovation?
- Does RIS3/ Operational Programme include Priority Axis and measures towards Open and Social Innovation?
- Are at your region practices and initiatives belonging to Open and Social Innovation?
- Are OSI related issues where there is a strong political will to move on, and get new recommendations?

The co-creation open event continues and after answering these questions, the participants of the co-working group discuss and suggest possible options for peers to improve the local policy process and strength open social innovation.

The peer review process began on October 2016 and was finalized on the end of March 2017, following the aforementioned methodology. The regions and the corresponding stakeholders involved were the ones of Western Greece and Region of Epirus.

5. Conclusions and Future Work

This paper serves as an introduction to the different definitions of open innovation, social innovation and open social innovation. There are presented the key elements of each definition and meaning and we have come to the conclusion that in order to foster open social innovation in a region, is essential the collaboration among the public sector, innovative businesses, research and academic world and the society who play an important and complementary role in open social innovation as the needs deriving from the wider society are those that indicate where the OSI will focus on.

Moreover, we have presented open social innovation through the perspective of project OSIRIS, an EU funded project that aims to foster open social innovation in European regions and contributes to their sustainable growth. There have been briefly described the series of activities that will be implemented in the project but special attention has given in the peer review methodology followed so that the regional stakeholders and policy makers to identify the potential of open social innovation in their regions. In our future work, we will present the results from the peer review process from various European regions and we will present and compare the qualitative and quantitative results of peer review process.

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